AN ABSTRACT OF THE THESIS OF

Jean Richardson for the degree of *Master of Arts in Interdisciplinary Studies* presented on January 31, 2012. Title: In Your Own Hands: Personal Integrity and the Individual's Experience of Work Life

This thesis argues the proposition that key aspects of systems thinking and leadership theory are the underpinnings of Scrum's contribution to character recovery in the workplace, an outcome which holds value for both workers and organizations.

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Thesis Advisor

In Your Own Hands: Personal Integrity and the Individual's Experience of Work Life

by

Jean Richardson

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Chair, Master of Arts in Interdisciplinary Studies

I understand that my thesis will become part of the permanent collection of Marylhurst University. My signature below authorizes release of my thesis to any reader upon request.

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Jean Richardson, Author

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Graduate theses acknowledgements are frequently trite in their recognition of the faculty who made key contributions to the work of the student who is the nominal author of thesis. Dr. Debrah Bokowski has, likely, received acknowledgements from many students whose theses have become part of the collection of Shoen Library. The progress of this thesis and its very many bumps, turns, and metaphorically sweat soaked pages would not have led finally publication without Dr. Bokowski's measured support which never stinted her professional standards for scholarship and yet provided moral support and encouragement at key moments that might otherwise have resulted in a terminal lapse of progress. It is very much through her auspices that this thesis sees the light of publication.

Dedication

This thesis is dedicated to the memory of my grandmother, Mary Louise Linn, whose constant support and example in valuing education and striving to live a good life was a frequent source of inspiration to me as I completed the coursework for this degree and, especially, during the long hours alone at my desk completing this thesis. She would have been proud to read it and would have found it to be good.

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CHAPTER ONE: INTRODUCTION TO THE PROBLEM AND APPROACH

Because, “career self-sufficiency” is becoming a job requirement, particularly for knowledge workers, it is important that organizations and the workers in them foster methods and contexts which allow participants to grow as individual contributors as well as corporate and country citizens. An agile project management framework called Scrum, used primarily in software development, claims to help everyone get better together on the project team and can contribute to overall organizational effectiveness and execution. When successful, this method fosters steady growth among team members, improves customer satisfaction, product quality, and time to market, thereby creating greater assurance to the team that the organization where they live their work lives will continue to exist and support them.

The personal mastery outcomes for team members may support not only greater employability, but better mental and physical health. Effective interactions between the individual team members can generate feeling states that support the health of their immune systems. However, only a minority of implementations of this method succeed. The reasons why have not, to date, been thoroughly analyzed, though there is extensive discussion among practitioners of why failures occur and what can be done to assure success. This thesis is designed to identify the systems thinking and leadership theory underpinnings of Scrum’s potential contribution to character recovery in the workplace, an outcome which holds value for both workers and organizations and to show thereby Scrum’s inherent utility in recovering character in the workplace.

The author's particular interest in this topic has evolved over a period of twenty years as a consultant in the software development industry. During that period of time I have seen people worked into the ground in the face of a great deal of project failure. Stories of work-related suicides, nervous breakdowns, social isolation, and drug and alcohol abuse have become a consistent undercurrent in the culture. At times, during the 2001 to 2002 recession, I heard the opening lines of Ginsberg's *Howl* resonating in my ears as I listened to my colleagues attempt to adjust to the restructuring of the industry:

> I saw the best minds of my generation destroyed by madness, starving hysterical naked,
>
> Dragging themselves through the negro streets at dawn looking for an angry fix, (Ginsberg, 1959, p. 9)

I saw that many of my colleagues had been largely formed by their careers, the workplace having taken on for them many of the social and moral functions that the church used to provide. Many of them were unaware of the progress of world events in the preceding ten or more years while they were driven, either by themselves or their organizational cultures, to frequently, even regularly, work 60 to 80 hours a week. In some cases, recruiters were unwilling to present their resumes unless they were willing to work seven days a week and be available 24-hours per day. Sleeping under your desk became a badge of honor, and I watched women bring small children into the office at the time of day when many workers were headed homeward to "tell Daddy goodnight" because Daddy would not be home until very late, or perhaps at all, that night. In Scrum, long hours are seen as an early warning sign of project failure which is to be managed back to acceptable levels, rather than accepted as part of the culture.

As one middle manager in a local software company said to a team I worked on many years ago, "software development is the business of harvesting brain cells," and at

times, we could feel those cells being harvested. In the face of such pressures, many people evolve a personal style in the workplace that dehumanizes themselves and their coworkers, restructures the meaning of truth, honesty, and integrity in very convoluted terms until we could entertain solemnly the obfuscations of an American President who debated the meaning of "is" in the face of direct questions. Scrum requires frequent face-to-face communication and tight cycles of making and keeping commitments which tests and proves integrity.

During a night of interrupted sleep in August of 2007, I tuned into an interview of John Rigas by Charlie Rose. The interview had been recorded on June 27, 2007, and Rigas and his son Timothy had been convicted of defrauding their shareholders and were ordered to report to prison on August 13, 2007. The interview had taken place at John Rigas' request and the content of that interview exhibited much of what I saw in the more advanced cases of social and ethical disorientation among my colleagues. My heart went out to Rigas for the effort he was expending in attempting to make sense of his experience and its consequences, particularly during exchanges in which Rose would restate various prosecutorial claims against Rigas and ask him whether he did each of those things. He would admit that he had, then equivocate or try to explain. Then Rose would ask him if he was guilty and Rigas, appearing to my mind like a dismayed Dorian Gray, would answer "They tell me that I am." There is no way that someone in that state of ethical confusion can possibly admit culpability and receive lenience, let alone absolution and forgiveness. Neither can he nor his sympathetic peers learn from his actions: We are all bankrupted by such a state of affairs in organizations. Rigas's are not created overnight, and the organizations that produce them or which they lead are

necessarily populated by paler shades of the same color. Because circumstances throughout many organizations have not improved and have in many cases worsened over the intervening years, I have been motivated to explore the ideas in this thesis and commit them to the rigorous academic process attendant in such an exercise as thesis writing.

Software projects, whether they are in the public or private sector, have astronomically high failure rates. That failure translates directly into squandered money, life energy, and dashed hopes. To work continuously in environments where the work is intellectually demanding, the hours are long and intense, and failure is the most likely outcome of many months, even years, of work takes its toll on the worker. It has taken its toll on a generation as the software development industry, its values, and its pace became an ideal modeled in education as well as business enterprises.

Most software development projects fail in terms of one or all of the following measures: conformity to budget, conformity to schedule, delivery of the expected product as contracted, and overall customer satisfaction. In the pursuit of successful project completion and a high expectation of overall profitability, software developers frequently work extremely long hours under intense deadline pressure to deliver their products on time and within budget; however, dishonesty can creep in with regard to reporting of progress and public commitment to feasibility of the schedule and budget agreements. Though methods and tools have improved over time, software development remains an art as much as a science. The contracting process, often called the requirements development process, is regularly fraught with error and misunderstanding. What is needed—what really should have been ordered by the customer—is often not

clearly understood by the customer or the development team until the wrong solution is delivered. Further, the tools and technologies the developers use change very frequently resulting in unanticipated technological challenges. Living in a constant context of high stress, long hours, and likely failure, workers manifest stress-related diseases such as headaches, back pain, susceptibility to viruses, and over a period of years, immune-related diseases and chronic stress-related illnesses such as hypertension.

The motivation for developing the Scrum framework was two-fold: to improve the project success rate for the customer thereby assuring the health of the enterprise and retaining the work among American workers and to improve the working conditions and career satisfaction of workers in the long run. The Scrum framework deconstructs the traditional "waterfall" approach to software development which sees the software development process as a linear effort moving from visioning/initiation through planning/contracting into execution/development and on to delivery/implementation and closing. The Scrum framework relies on built-in rapid feedback and collaborative interpersonal dynamics as well as fostering good technical software development methods and tools implementation. To summarize and drastically simplify the method while focusing on the thrust of this thesis, the framework may be described as follows. At the beginning of an arbitrarily set standard development cycle known as a sprint, the customer meets with the development team and presents a prioritized list of desires for the product. This development cycle typically lasts one week to one month. This duration is maintained over an entire product development timeline for a given team. Once the team and the customer, or Product Owner, agree what will be built within that

development cycle, the Team adjourns to build the piece of software to fulfill the stated set of desires.

Every 24 hours, the team meets (face-to-face is recommended) to discuss the previous day's activities, adherence to collaboratively developed priorities, validate and reset short-term commitments that feed long-term goals, and to offer support, both moral and technical. Teams are typically seven plus or minus two people, and these meetings are highly structured and move at a fairly rapid pace, typically completing in 10 to 15 minutes. At the end of every sprint, the team demonstrates to the Product Owner (customer) what it has built to fulfill customer desires and the Product Owner accepts or rejects what is delivered. Only working software that provides agreed business value can result in a successful sprint.

The framework assumes that customer desires will change, and one of the non-traditional aspects of this framework is that Team members are typically schooled not to make formal commitments to the budget or scope of the deliverable. This is often seen as one of the weaknesses of the Scrum framework, though some methodologists do speak to how to deal with overall software release cost and schedule constraints. And, successful Scrum Teams tend to demonstrate, along with their technical skills (expertise), remarkable skill in negotiation, estimation, and problem solving (both interpersonal and technical). Successful teams are thus able to function as a highly collaborative learning machine and team members often carry themselves with the genuine confidence that well-developed personal mastery supports authentically.

A key role in this process is the ScrumMaster who functions primarily as the teacher of the method for both the customer and the Team. The ScrumMaster's only

tools for success are Socratic questioning, dialogue, and consequences. She has no formal authority with the Team or any of her stakeholders. The ScrumMaster also helps the Team remove impediments to progress and success identified by the Team whether organizational, methodological, or technical. Impediments are anything that prevents the Team from moving forward toward success within a given sprint.

As should be clear from this brief description, this framework requires that participants develop strong interpersonal and collaboration skills. They must demonstrate integrity on a daily basis (my words match my actions), and their critical thinking skills and problem solving skills are used regularly. Participants are part of an open system, as defined by classical systems thinkers, such as Senge, Kim, and Ackoff and diagrams of the framework in action often look much like a causal loop diagram. Further, it should be clear that the customer sees the results of his desires for a product much more quickly than is often otherwise delivered. In a matter of a week to a month, one or more of those desires will be codified in working software and ready for use. So, if the team is not delivering what the customer wants, both the team and the customer know this very quickly, a timeliness which would have saved the expense of billions of dollars on many failed traditional software projects each year.

In an interview in February 2008 (http://www.agilecollab.com/interview-with-ken-schwaber), Ken Schwaber, one of the founding developers of the Scrum framework, said "I estimate that *75% of those organizations using Scrum will not succeed in getting the benefits that they hope for from it*." However, the challenge is to understand why so many Scrum implementations fail. Schwaber says in the same interview "However, as organizations and projects flee the existing controls and safeguards of waterfall and

predictive processes, they need to recognize the even higher degree of control, risk management, and transparency required to use Scrum successfully." The project controls Schwaber is referring to, in software development projects, are related to human performance, i.e., the people who implement the Scrum framework and the culture they spring from. Essentially, the living system the Scrum framework instantiates enforces the creation of a learning organization, with all its challenges of implementation in a western culture that is competitive, not collaborative; debate-oriented, not dialogue-oriented; conversant with hierarchy; unfamiliar with the notion of the holon[1] in organizations; and unreflective in its equating of the admission of error and the need for learning and support with incompetence and untrustworthiness.

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[1] The noun "holon" was coined by Arthur Koestler in 1967 in his novel *The Ghost in the Machine* and is used here as described in Kira, M., & Eijnatten, F. (2008). Socially sustainable work organizations: A chaordic systems approach. *Systems Research & Behavioral Science*, *25*(6), 743-756. doi:10.1002/sres.896. http://0-web.ebscohost.com.shoen.iii.com/ehost/detail?vid=43&hid=8&sid=9041c380-39b4-4b37-87ee-3d790b380d0a%40sessionmgr110&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#db=bth&AN=36078404

In an executive commentary in the *Academy of Management Executive* discussing why Argyris and Schön's *Organizational Learning* is a landmark text even though organizational learning itself has seemed to wane in the business community, Peter Senge says "learning is both personal and systemic" and that "we do have embedded defenses against seeing gaps in our own actions and that confronting these problems requires deep personal commitment." As shown in the implementation of the Scrum framework in software, organizational learning, which is effective only if it includes management, calls hierarchy and authority into question and sets the ability to learn and improve at center stage with regard to developing influence and potentially organizational ascendancy. Systems thinking applied to organizations, of which Scrum may be a somewhat unwitting example, can tend to call the role of the leader into question, making the servant leader a true servant.

In the succeeding chapters of this thesis, the reader is introduced to the multidisciplinary body of literature that describes a body of relevant literature on systems thinking and leadership and the describes the Scrum framework and its contribution to the recovery of character in the workplace which will improve organizational execution and simultaneously improve the lot of the average knowledge worker in a complex organization.

CHAPTER TWO: A REVIEW OF THE LITERATURE

Overview

The following literature review discusses relevant writings in systems thinking, leadership, and agile project management methodology theory and practice which, taken together, show how individuals working in agile business environments where projects are managed using the Scrum framework are necessarily afforded opportunities during their working hours to build character and confront weak character in themselves, their colleagues and their organizations. We begin this discussion with the systems thinking contribution, proceed through leadership contributions to the discussion, and then conclude with a specific overview of the Scrum framework and how the framework works to increase engagement, cooperative behavior, and build character.

Systems Thinking

In the monograph *Introduction to Systems Thinking* (1999) by Daniel H. Kim systems thinking is defined as

> . . . a way of seeing and talking about reality that helps us better understand and work with systems to influence our lives. . . . systems thinking can be seen as a perspective. It also involves a unique vocabulary for describing systemic behavior, and so can be thought of as a language as well. And, because it offers a range of techniques and devices for visually capturing and communicating about systems, it is a set of tools. (p. 2)

Kim defines a system as "any group of interacting, interrelated, or interdependent parts that form a complex and unified whole that has a specific purpose" (1999, p. 2). The tools Kim refers to are an expanding set of graphical and thinking tools that allow systems thinking practitioners to describe systems and their interactions, for example,

stock and flow diagrams, causal loop diagrams, and behavior over time diagrams. In another systems thinking monograph (Zulauf, 2000, p. 2) systems thinking principles, as identified by Draper L. Kauffman in *Systems 1: An introduction to Systems Thinking* and Peter Senge's *The Fifth Discipline Handbook* include:

- There are no final or right answers.
- Cause/effect is not related to time/space.
- Solutions require careful consideration.
- Behavior gets worse before it gets better.
- There are limits in every system.
- Foresight benefits you in the long run.

Zulauf goes on to describe the systems thinking perspective that events are related to underlying patterns and patterns are related to underlying structures (p. 3).

Margaret Wheatley's *Leadership and the New Science: Discovering Order in a Chaotic World* was published in 1999 well after the Scrum framework was initially developed and had started being used in organizations. While still new information for many business leaders twelve years later, Wheatley's description of her foray into quantum theory through the work of scientists writing for non-scientists presents an overview of how she came to understand the connection between research into quantum theory and systems theory from a human systems perspective. In the chapter "Newtownian Organizations in a Quantum Age," Wheatley describes typical control approaches used in business and goes on to say "I am weary of the lists we make, the time projections we spin out, the breaking apart and putting back together of problems. It

does not work. The lists and charts we make do not capture experience. They only tell of our desire to control a reality that is slippery and evasive and perplexing beyond comprehension" (pp. 27-28).

The author goes on to describe the emergence of Newtonian atomistic clockwork thinking, how it was useful at the time, and how it has informed human experience and organizations to the present day but how, in alignment with new scientific research, it has been shown to be less useful in a world in which "Agility and intelligence are required to respond to the incessant barrage of frequent, unplanned changes" (p. 38). Wheatley repeatedly makes the point that modern organizational life actually resembles what is being learned in the new science, that relationships contain meaning and power that are not resident in individuals, that rapid change due to non-local influences are constant, and that humans function within fields of relationship that influence organizations and their outcomes.

She discusses the perceptual nature of measurement and the extent to which what is desired on the part of the measurer tends to be demonstrated by what has been previously identified as objective measuring techniques. She writes about how order emerges from chaos in self-organizing systems which self-organize to greater advantage than external influences could have derived for them, a key underlying principle of the Scrum framework which builds in both individual and group accountability for the outcomes of the self-organizing work group. Wheatley's insights are particularly salient for our topic inasmuch as human systems in complex knowledge development environments such as software organizations are particularly vulnerable to and adept at modeling themselves on cultural assumptions allied with science.

The conversation about how to inject the beneficial learning coming from the new science continues in 2006 in "Why Few Organizations Adopt Systems Thinking" where Russell Ackoff, a key systems theoretician, indicates that few organizations adopt systems thinking because there is complexity in doing so and failure to adopt complex new techniques expertly results in punishment. Ackoff describes errors of commission and errors of omission. The first kind of error is the least costly but the most severely punished so that "a manager who wants to invoke as little disapproval as possible must try either to minimize errors of commission or transfer to others responsibility for those he or she makes" (p. 706). This contributes to a culture of deceit and non-transparency, which is diametrically opposed to the principles which underlie the Scrum framework as we shall see later in this chapter, as well as being deleterious to individual character. Ackoff also notes that "Very few managers have any knowledge or understanding of systems thinking, and for good reason. Very little of our literature and lectures are addressed to potential users" (p. 707). Lack of well-grounded understanding in this complex domain is likely to result in a high rate of error in applying what little may be known, so the wise and ambitious businessperson eager to move ahead in his or her professional standing will be unlikely to take the risk of applying what little he or she may have learned.

In 2009, Peter H. Jones, then a visiting scholar at the University of Toronto and a consultant focusing on depth research and systems and concept design for human-centered innovation, argued in "Learning the Lessons of Systems Thinking: Exploring the Gap between Thinking and Leadership," that he is not aligned with the notion that systems thinking is a failure. Rather "systems theory also set inappropriate and overly

high expectations for itself and its adopters" (p. 2). Drawing from his own experience as a theoretician in design thinking he says "I am an unrepentant theory builder that likes to think my ideas and practices make a difference. But, in practice, the more theorectically specified, the less difference or impact I find I make" (p. 3) and that the formidable authorship and indivisibility of the "thinking" frameworks systems theorists created required "discipleship, not just discipline" (p. 3). Jones notes that leaders do not make good disciples and the frameworks offered by systems thinkers were not workable in practice for organizational leaders.

Jones goes on to question whether leaders will attend lengthy workshops to learn new frameworks and that the best outcome may be to engender organizational collaboration by constructing collaborative processes that bake theory into tangible practices of making and reflection that allow people to make sense of their options and possible futures. By the time this article was written, Scrum had been active as a framework in the software industry for fourteen years having been introduced at the Association for Computing Machinery Object-Oriented Programming Systems, Languages, and Applications conference in 1995 by Ken Schwaber and Jeff Sutherland (Schwaber & Sutherland, 2011, p. 16).

While first acknowledging the contributions of early systems thinking theorists W. Edwards Deming, Jay W. Forrester, and Peter Senge, Juan Pablo Aljure Leon in "Systems Thinking: The Key For The Creation Of Truly Desired Futures" underscores the usefulness of systems thinking in identifying long term solutions to problems. As he summarizes systems thinking,

> The discipline of systems thinking requires the differentiation between the resulting events of the organization (company, family, city, etc.), the

> behavioral patterns of the system (absenteeism, participation, feelings, sales, etc.), the chosen and not chosen structures of the system (resources, processes, and natural laws like 24 hours in a day, genetics, etc.), and the mental models that coexist in the organization (systems of belief, models of how the world works and should work). (2008, p16)

Double-loop Learning, a Systems Thinking Technique

Christopher Argyris, a Harvard professor and world-recognized authority in organizational learning, has published three articles related to the systems thinking learning processes implied by Leon: "Teaching Smart People How To Learn," "Good Communication That Blocks Learning," and "Double-Loop Learning, Teaching, and Research," which collectively describe double-loop learning as distinguished from single-loop learning, introduce organizational defensive routines backed up by defensive reasoning that blocks learning and prevents individual accountability, and espoused theory of action versus theory-in-use.

> Single-loop learning occurs when errors are corrected without altering the underlying governing values. For example, a thermostat is programmed to turn on if the temperature in the room is cold, or turn off the heat if the room becomes too hot. Double-loop learning occurs when errors are corrected by changing the governing values and then the actions. A thermostat is double-loop learning if it questions why it is programmed to measure temperature, and then adjusts the temperature itself. (2002, p. 1)

> Argyris defines organizational defensive routines as:

> . . . any action, policy or practice that prevents organizational participants from experiencing embarrassment or threat and, at the same time, prevents them from discovering the causes of the embarrassment or threat. Organizational defensive routines . . . inhibit genuine learning and overprotect the individuals and the organization. (2002, p. 213)

> Further, he describes espoused theory of action as follows:

> Each of us has what I call an *espoused theory of action* based on principles and precepts that fit our intellectual backgrounds and commitments. But most of us have quite a different *theory-in-use* to which we resort in moments of stress. And very few of us are aware of the contradiction

> between the two. In short, most of us are consistently inconsistent in the way we act. (1994, p. 80)

Taken as a set of concepts simultaneously or serially active in a human system it is clear that the dissonance between the *espoused theory of use* and the *theory-in-action* swathed in an *organizational defensive routine* replete with defensive reasoning would result in blocks to double-loop learning, or learning which causes change in mental models which drive current and future behaviors.

A comment on "Teaching Smart People How to Learn" published as an addendum to that article provides additional insight into the special situation of knowledge workers. Haridimos Tsoukas notes that "As organizational ethnographers, such as Julian Orr (1996) and Etienne Wenger (1998), have shown, daily work in information-rich companies is more *decision intensive*—more loci for decision making by employees are created." He then draws conclusions from Zuboff that the more "informated" a workplace is, the more reflexive or self-reflection-oriented the workplace is capable of being. He points out that Argyris, in his body of work, repeatedly points to the difficulty practitioners have in doing reflexive thinking—"double-loop learning." Tsoukas states that this is particularly true for knowledge workers who, by definition, work in highly informated environments "because, to the extent that they are more psychologically present at work, they expose more of themselves to others; hence, they are more vulnerable." Therefore, the essence of short-circuiting defensive reasoning so that a knowledge worker can engage in reflexive reasoning and engage in double-loop learning is that knowledge workers bear a greater burden of "constantly challenging yourself, of expanding your horizons, of 'knowing thyself.'" And, therefore, Tsoukas reasons that "Argyris invites knowledge workers to undertake a primarily *moral*, not just

technical task: to be open to criticism, to be willing to test their claims publicly against evidence, to accept that they too are partly responsible for the problems they are confronted with" (as cited in Argyris, 1991, p. 15).

In "Taking Personal Change Seriously: The Impact Of Organizational Learning On Management Practice" Peter Senge reinforces Argyris' work on double-loop learning, acknowledging the difficulty of the discipline and that many people will see the implementation of double-loop learning as just too difficult. For this to change, "people must get to a point where they see that their established ways of coping with their problems are clearly not going to suffice" (2003, p. 50). Among Senge's philosophical assertions is that the ability to communicate attractive alternative futures through the social technology of presencing, while maintaining awareness of how we are in the system, is essential.

How We Are in the System

In "Awakening Faith in an Alternative Future," Senge, Scharmer, Jaworski, and Flowers discuss the importance of generative learning, introduce and define the concept of the "blind spot," overview early and significant quantum theory developments (such as field theory) that inform our evolving understanding of human systems, and describe the nature of presencing. Quoting Buckminster Fuller, the authors introduce the notion of pattern integrity; for instance, a human hand is constantly regenerating itself through sloughing cells and replacing them with new ones though the hand remains a hand. Fuller identifies a human hand as a pattern integrity "the universe's capability to create hands" (Senge, et al., 2004a, p. 3). The authors also introduce Rupert Sheldrake's notion of morphic fields.

> "In self-organizing systems at all levels of complexity," says Sheldrake, "there is a wholeness that depends on a characteristic organizing field of that system, its morphic field." Moreover, Sheldrake says, the generative field of a living system extends into its environment and connects the two. For example, every cell contains identical DNA information for the larger organism, yet cells also differentiate as they mature – into eye, heart, or kidney cells, for example. This happens because cells develop a kind of *social identity* according to their immediate context and what is needed for the health of the larger organism. When a cell's morphic field deteriorates, its awareness of the larger whole deteriorates. A cell that loses its social identity reverts to blind, undifferentiated cell division, which can ultimately threaten the life of the larger organism. It is what we know as cancer. (Italics mine.) (Senge, et al., 2004a, p. 3)

Senge et al. then expand their discussion of these topics in *Presence: An Exploration Of Profound Change In People, Organizations, And Society*. Through the medium of transcribed dialogue the four authors, consultants, and applied philosophers use observations from nature and their own practices as well as their grounding in new science to sketch "Theory U" which is essentially a theory of consciousness raising for human systems. The authors repeatedly emphasize the connectedness of all living things and therefore of all human beings and underscore their observations by referencing the works of such respected writers as Rupert Sheldrake and Alan Webber then grounding the theorist's assertions through interviews with practitioners. For instance:

> Intel's David Marsing told Joseph (Jaworski) that 'Synchronicity is about being open to what wants to happen.' For him, what Rao called 'the broadcasting of intention' is evident by the way 'many people sense and are drawn together around a new possibility that's unfolding.' And, he added, 'It's usually more than one person who senses it and who wants to help. I rarely find myself in this sort of place alone. You don't even have to advertise—there's something about the situation that resonates with people who have a similar intent and a similar set of principles and values. They're drawn to it, and then magic begins to unfold'. (Senge et al., 2004b, p. 159)

An Holonic Approach to Human Systems in Organizations

While some theorists are drawing conclusions about the field nature of human systems, others have also noticed the holonic nature of human systems and employed it in the development of a theory of socially sustainable organizations that employ both the concept of the holon and the concept of chaorder. In 2008 Kira and van Eijnatten published a paper describing an enhancement to Open Systems Theory which further contributes to the design of sustainable human systems in organizations, particularly with the worker in mind. In "Socially Sustainable Work Organizations: A Chaordic Systems Approach" the authors implement the concept of the holon along with the notion that progressive complexity assures greater sustainability. According to the authors, a work organization is designed to generate services or products, and in the course of generating those services or products, it contributes to social changes. In recent years the authors note "it has become more apparent that depleting natural, human and social resources will eventually delimit the economic operation alternatives (Barisi, 2000; Docherty et al., 2008)" (Kira & van Eijnatten, 2008, p.743-744). To avoid these undesirable human and natural environmental outcomes, some organizations have sought ways to support growth and development of both human and non-human aspects of the environment. The objectives of these organizations align with the Scrum framework.

The authors define organizational sustainability as the capability to find methods for dealing with challenges as well as the ability to create new opportunities for "productive existence." The hallmarks of a sustainable organization are that it is able to transform itself structurally and in terms of organizational patterns as well as transform the "mental models shared by its members." Individual sustainability is "dynamic,

sustained capability" in cognitive and affective functioning. "Sustainable people are able to rely on rich 'interior' awareness and a repertoire of alternative 'exterior' actions when facing challenges and opportunities" (Kira & van Eijnatten, 2008, p. 744).

The concept of the "holon" was introduced in 1967 by Koestler in his novel *The Ghost in the Machine* and was further developed by Ken Wilber; that additionally developed concept is adapted by Kira & van Eijnatten for the purpose of describing how individuals and organizations interact. An organizational holon at the individual level is defined by the authors as an entity that has awareness of internalized cultural norms and values and has the ability to manifest skills and competencies to take actions and inhabit social roles such that the holon builds on intentions and behaviours, internalized cultural worldviews and social roles as it acts out its existence in the organization. In applying the term "holon" simultaneously to the individuals and the organizations they create the authors write:

> Holons therefore have properties originating from individuality and socio-cultural belongingness. In this sense, each holon is a whole in itself (an individual entity), but also a part of a greater socio-cultural system. In short, a holon is an entity that is both a whole and a part of a bigger whole, at the same time. (Kira & van Eijnatten, 2008, p. 749)

The authors assert that learning processes which increase the complexity of the holon, whether that is the holon as individual or the holon as organization, result in "diverse resources that are optimally integrated into a well-functioning whole" and further that "in human and social systems, diversity has to be accompanied by integration to allow for coordinate, sustainable functioning" (Kira & van Eijnatten, 2008, p. 744-745).

The concept of a chaordic system is applied by the authors as follows:

> Sometimes, a chaordic system follows linear paths (stable development, represented by a single point attractor); at other times, the system behaviour changes in nonlinear ways (unstable development, depicted by a strange attractor). The concept 'chaord' actually stands for these characteristics: a social system is understood to function both 'chaotically' and in an orderly manner (e.g. Fitzgerald, 1996; Hock, 1999). In ecological sustainability studies, it has become increasingly clear that sustainable ecosystems are not always returning to the same state after an environmental disturbance. When sustainable, ecosystems are able to exist in several equilibrium states and travel between them in nonlinear fashion (e.g. Fiksel, 2003). (Kira & van Eijnatten, 2008, p. 747)

While in a constant state of change, a chaordic organization also engages in dissipation which both helps it break down existing organizational structures which are no longer useful and causes it to move through a lifecycle such that it is likely to complete that lifecycle at some point and cease to exist (Kira & van Eijnatten, 2008, p. 751).

The authors emphasize the importance of broadly participatory "democratic" processes for organizing work and adapting work processes. Subsequent to the publication of this paper, a vociferous dialogue between the authors of this paper, Kira and van Eijnatten, and Merrelyn Emery ensued, and it is worth considering here. In 2010 Emery published a research note "Refutation Of Kira & Van Eijnatten's Critique Of The Emery's Open Systems Theory" which argued that the 2008 paper was unsound in that it attacked Open Systems Theory which was developed by the author and her now-deceased research partner and husband in cooperation with a number of other researchers cited in the article. Emery requires retraction of the entire Kira and van Eijnatten paper. In 2011 Kira and van Eijnatten respond with their own research note "Socially Sustainable Work Organizations And Systems Thinking" which clarifies certain aspects of their 2008 article and they respectfully decline to retract it while showing the contribution that their

research makes and claiming it is scientifically valid. In 2011 in another research note, "Fiddling While the Planet Burns: The Scientific Validity of Chaordic Systems Thinking," Emery again attacks both the 2008 paper and the 2010 research note presented by Kira and van Eijnatten calling into question the scientific grounding of the work and in some cases the logical reasoning of the authors and asserting again that the Open Systems Theory that Kira and van Eijnatten sought to enhance is complete in itself and completes possible theoretical development in the space of human systems in organizations. Also in 2011 Kira and van Eijnatten respond with their own research note, "Socially Sustainable Work Organizations: Conceptual Contributions and Worldviews," asserting that "We do not concur with her (Emery's) critique to our work, and it seems to us that fundamentally different ways of looking at reality play a role in the present exchange of research notes. We do not think that such profound differences in worldviews can, if at all, be resolved by another Research Note" (Kira & van Eijnatten, 2011, p. 418).

The value contributed to this thesis by the publication of the 2008 paper and the following exchange of research notes in the same publication, *Systems Research & Behavioral Science*, is to underscore the seriousness with which systems science and systems thinkers take the organization of work as a contributor to the vitality of individuals and organizations. A reading of these papers provides sufficient overview of both Open Systems Theory and Chaordic Systems Theory to indicate benefit from applying either to regenerate the human system comprising a bureaucratic organization. However, the assertions in Chaordic Systems Theory appear to be more directly aligned

with the human systems model aspired to in agile methods and particularly the Scrum framework.

Systems Thinking Empirically Proven a Management Practice Asset

While Kira and van Eijnatten were writing about chaordic human systems in organizations, Aelita Skaržauskienė (2008), in "Theoretical Insights to Leadership Based on Systems Thinking Principles," was publishing a survey of systems thinking principles relevant to leadership and an integrated systems thinking framework with regard to the inspirational and instrumental aspects of leadership. This was presented as a methodological basis for further study on the leader's ability to think and act "systematically."

In her related journal article, "Systems Thinking As A Competence In The Leadership Paradigm," (2009) she proposes that growing dynamic complexity in the organizational and societal context requires leaders to become systems thinkers. She presents the data and analysis from a research project on workers in retail and manufacturing environments and concludes that there is a verifiable relationship between systems thinking and leadership performance.

Systems Theory and Research Underscores Connectedness

In *Mutual Causality In Buddhism And General Systems Theory: The Dharma Of Natural Systems* (1991), a book based on her doctoral dissertation, Joanna Macy compares and contrasts Buddhism and systems science. According to Macy, systems science provides a set of natural laws verifiable through science and logic. As a Buddhist scholar, she noticed that Buddhism and systems theory have overlapping precepts along

the same moral lines. Both Buddhism and systems science propose and validate that all beings are connected and that the earth itself is a being to which we are all connected. Macy describes her intent for the book as closing with a consideration of implications of mutual causality for considerations of epistemology, ontology, and value, the key intellectual space wherein the Buddhist and systems views interact when considering "in turn the image of the self, the nature of knowing, the relation of mind and body, the self-organizing character of choice or karma, and, in the final three chapters, the *social ethics implicit in mutual causality*" (italics mine) (1991, p. 3).

Macy shows how both Buddhism and general systems theory hold that the doer and the deed are co-arising and create each other; we are created by our actions. She reasons that the self, from a perspective of mutual causality, is not a knower or actor as we currently think of it but a self-organizing series of events or "occurrences of knowing and acting" (1991, p. 161). Our past choices narrow the scope of our future choices. A self-organizing open system becomes more autonomous and whole, or manifesting integrity and a complex unity, over a series of iterations of choice-making. Open systems are self-organizing and so by definition cannot be dictated or directly modified from outside the system. Past experience enters as a feedback loop into present decision making. The more highly organized the system, be it an organization or an individual person, the more autonomous.

> In the systems philosophical view, self-reflexive consciousness emerges when the degree of complexity has evolved to the point that monitoring requires evaluation and selection between alternate courses of action. Freedom enters. (Macy, 1991, p. 174)

The person and the society, or organization, are interconnected and co-arising. The individual is both unique and inseparable in her organizational role from the

organization in which she acts out that role. The individual self-organizes through processing, transforming and exchanging information derived from the organization (1991, pp. 183-184).

This is similar to Kira & van Eijnatten's holonic theory above. Macy reasoned that, because we are interdependent with each other, all life, and the natural and social environment, it follows that our actions have effects on others and therefore self-respect and self-restraint in a context of concern for others is required in order to maintain harmony and continuity. "For the very dynamics of mutual causality suggest that certain moral values are woven into the fabric of life, intrinsic to its harmony and continuity. These dynamics present a reality so structured as to require, for our conscious participation in it, that we live in certain ways" (Macy, 1991, p. 193). This includes living out the reality of a concern for other beings which includes a preference for collaboration over competition (p. 195). It also includes acknowledging that an objective reality in which the knower or observer is neither a participant nor creator of that reality is not possible (pp. 196-197). Political engagement is a duty because we are interdependent with the state—and by extension, the organization—and responsible for its health (p. 198), and it is unwise and unhealthy to adapt to a dysfunctional state or organization.

> Given our discussion of the prerequisites for its health, it follows that a social system is maladaptive where, through external force or the incapacitation of its members, it hampers diversification and the processing of information. It is also dysfunctional within the larger systemic hierarchy when it cannot integrate its members to exist in harmony with other societies or with the ecosphere. If it is alienated from surrounding realities, it imposes this alienation on its members. "To 'adapt' to such a social system is, as Laszlo puts it, "just as desirable as to 'adapt' to a tumor on the brain." (Macy, 1991, p. 201)

Individuals have a right to worthwhile work and the "Buddhist view of causality recognizes that the character of the person is both expressed in the work he performs and modified by it, and that therefore high value must be placed on the character of this work" (Macy, 1991, p. 206). Ends and means, if not kept in proper perspective, will have a deleterious effect on the actor as the means become merely instrumental in achieving the ends (p. 208).

Lynne McTaggert, a science journalist, studied for years what has come to be called the "new science," which is comprised primarily of new research in physics and biology, before publishing *The Field: The Quest For The Secret Force Of The Universe* in 2008. This text discusses experimentation and theorizing by recognized scientists in the late 20th and early 21st centuries who were interested in the power generation potential and human connectedness facilitation ability of The Zero Point Field "an ocean of microscopic vibrations in the space between things" (McTaggart, 2008, p. XXVII). Scientists began to realize in the late 20th century that "(i)f the Zero Point Field were included in our conception of the most fundamental nature of matter, they realized, the very underpinning of our universe was a heaving sea of energy—one vast quantum field. If this were true, everything would be connected to everything else like some invisible web" (McTaggart, 2008, p. XXVII). Interestingly, this is similar to much of what had been indicated through Macy's consideration of mutual causality as represented in Buddhism and general systems theory.

McTaggart summarizes and interprets for the layman a range of experiments, many of which were done with human subjects. A particularly interesting set of experiments funded by the U.S. federal government over a period of 23 years (from 1972

to 1995) was focused on remote viewing—a human ability to see things at a distance when given geographic coordinates to focus on (McTaggart, 2008, pp. 143-160). The theorists, after extensive, scientifically structured testing, which was subsequently reviewed by scientists external to the studies for scientific soundness, postulated that the individuals who were proven to be able to "see at a distance" were actually accessing knowledge resident in the Zero Point Field which connects "everything to everything."

Another set of highly structured experiments investigated individuals' ability to influence others through directed intention. The resulting analysis being that "(i)t appeared that the mental and physical structures of the sender's consciousness are able to exert an ordering effect on the less-organized recipient" (McTaggart, 2008, p. 136) though consideration of accumulating research into the function and nature of the Zero Point Field led the researcher to believe that "a field of all information and an ability of human beings to provide information which would help to better order people and things" (p. 136) was actually at work.

Another study tested human ability to heal another through directed intention (McTaggart, 2008, pp. 181-196). First a survey of similar studies existing at that time (the late 1990's) was conducted by the researchers. Then they assembled a group of healers, "an eclectic assortment of forty religious and spiritual healers all across America, many highly respected in their fields" (p. 188) from a wide range of spiritual traditions using a wide variety of techniques from prayer to drumming to transmission of *qi* energy. The patients in the double-blind study were AIDS patients who were considered advanced in the progress of their condition and past hope of current medical intervention. The researcher leading this project was open minded but also functioning under the more

conservative influence of her training and analytical predilections which resulted in skepticism that the alternative healing methods being tested had anything to do with curing such a serious illness. Then, the data showed the study participants were actually getting better. During the six month trial period, 40 per cent of the control population died, while "all ten of the patients in the healing group were not only still alive but had become healthier, on the basis of their own reports and medical evaluations" (p. 190).

From the perspective of Scrum teams and organizations interested in adopting Scrum, perhaps McTaggart's documentation of Rupert Sheldrake's theory of morphic resonance is the most salient because it is a theory of cumulative memory. "'Morphic resonance', is, in his view, the influence of like upon like through space and time'." This type of field, which can reverberate across generations, makes use of collective learning. "*The more we learn, the easier it is for others to follow in our footsteps"* (italics mine) (McTaggart, 2008, p. 47).

Having reviewed relevant references in systems thinking with regard to learning, problems in adoption of systems thinking among organizational leaders, sustainability of human systems through chaordic self-organization, ethical implications of mutual causality, and field theory, we will now consider relevant literature on leadership theory, especially chaordic leadership and servant leadership, as well as literature related to the corrosion of character and ethical and motivational decline among mid-career workers.

Leadership

Leadership, it may be said, is in short supply in many organizations today. In the minds of many, "a leader" implies an individual with followers. Many sources indicate

that leadership is a character-driven state, a way of being in context that has more to do with integrity, character, and calling than it does with position, especially in a hierarchy.

The urgency of a need for change in the way leadership is commonly practiced is evident in many quarters not only because of ecological and economic pressures but because of human systems pressures that are bearing down on cultural assumptions worldwide. Csikszentmihalyi writes in "What We Must Accomplish In The Coming Decades" (2004) that three things must be done in the coming decades: develop self-confidence in our role as stewards of the planet; find ways to cooperate and live with each other in peace and mutual respect; and discover joyful ways to direct the evolution of consciousness into the future. Challenge and cooperation bring joy and commitment to life much in the way that having a calling and following it does. His research shows that the more cooperative an activity is, the more challenging it is, and the more we are challenged, the greater the likelihood that we will develop toward wholeness.

Leadership requires an understanding of the context of the individual and the sustainable workplace motivators over the course of a lifetime. Among these motivators is work as a calling.

Calling and Work

Alice Koller, a Harvard educated doctor of philosophy whose memoir *An Unknown Woman* is recognized as a ground-breaking contribution to American feminist thought also published *The Stations Of Solitude* (1990) an excellent philosophical consideration of work as a calling versus a job as money getting. She invites the reader to pursue her own personal development through work, adapting the metaphor of the stations of the cross. She counsels the reader that the process of doing her work is "the

process of shaping a human being" (Koller, 1990, p. XI), the destination of the journey is "the *kind of person* you wish to become" (italics mine) (p. XI), and that the reader need not visit stations in order and may return to a given station more than once. She describes the stations as points at which decision and action are required of the reader as worker.

> The decision you're called on to make will have far-reaching consequences for the person you are, the person you wish to become. It is the price of the journey: that at this stopping place you must make a choice . . . But you will also profit: you will learn, you will approach more closely the person you want to be. (Koller, 1990, p. XI)

Koller keenly distinguishes "work" from "job." Work is the way you occupy yourself wholly, and you may not be paid to do your work, whereas a job is a way of getting money. "Getting paid to do your work, being given money so that you'll simply continue doing whatever your work is, is the only worldly success worth remarking" (1990, p. 42).

In 1994 David Whyte, a consulting corporate poet with a client list that eventually included such American giants as Shell Oil, published *The Heart Aroused: Poetry And The Preservation Of The Soul In Corporate America*. It describes how the soul (character) is corrupted through normal corporate functioning. Using personal observation combined with poetry and Gaelic folk metaphor ("Fionn and the Salmon of Wisdom"*)*, Whyte evokes the experience of the worker in a complex organization and how his existence in that organization affects his character over time. He describes the corporation as a larger body that, essentially, makes it possible for the individual to achieve what is not achievable as an individual; yet, the corporation also renders the individual powerless. He likens the organization to an engulfing parent which, by both encouraging creativity and limiting it, creates a tremendous pressure in the individual that

eventually leads to the individual caving in to the system or leaving in anger to find a place where the individual's true work can be done. (p. 147).

Over time, and perhaps as an aspect of the "caving in" described above, enduring this kind of tension in one's work life engenders "an almost pleasurable gleam of wickedness, that we have earned some kind of right through our blood and sweat to have less interest. We look but do not care to perceive . . ." (p. 182). Whyte's analogy of the malaise of the individual worker stepping over some sort of obstruction in the doorway to the workplace each day and then one day realizing that obstruction is a corpse and that corpse is her own is apt. As Whyte says "We flee . . . The grief is too much (1994, p. 183).

Upon reflection, Whyte resonates with Koller by emphasizing the need for a connection between work (what we choose to serve) and job (the tasks done in an organization to get money to live) and cautions the reader that giving up on their desires (or work) too soon leaves them as easily controlled automatons in the hands of those who have not done so. "To preserve our deeper desires amid the pressures of the modern corporation is to preserve our souls for the greater life we had in mind when we first took the job" (Whyte, 1994, pp. 297-298).

In Whyte's *Crossing The Unknown Sea: Work As A Pilgrimage Of Identity* (2002), he further explores the notion of work as a medium which informs who we are by how we do it. Whyte describes life as a conversation and holds that both our life and our work are the result, or expression, of how we individually engage in that conversation (p. 6), which is to characterize work as an act of not only self-actualization but self expression. Good work is, according to his research of various human traditions, a sign

of both inner and outer maturity as persons which is not only an individual success but a contribution to all of society (p. 12). To begin this conversation, this pilgrimage, this exploration and expression of our own identity requires courage and some would say that beginning it consciously and with the objective of doing good work in mind takes more than ordinary courage; Whyte points out that there really is no such thing as ordinary courage. Nonetheless, to engage in our work without courage, it might be said, in a cowardly manner demeans our life's work to nothing more than an attempt to hoodwink reality while we "get our own way" (p. 14). With regard to work and life as an ongoing conversation rather than a strategic game plan, Whyte says "Whether it be the Berlin Wall, apartheid, the bad old coercive Soviet system, or our own bad old coercive business systems, it seems that any foundations not now built on the realities of human relationship are being swept away by the forces of our time" (p. 24). Like Koller, Whyte believes that finding one's life's work or real work, as opposed to a job, which merely fulfills the purpose of money getting, is essential to the individuation and maturation processes, or, as Sennet (2006) puts it, formation (p. 29). And highlighting his essential message about work and self again in *The Three Marriages: Reimagining Work, Self And Relationship* Whyte says "Work, like marriage, is a place you can lose yourself more easily perhaps than finding yourself. It is a place full of powerful undercurrents, a place to find our selves, but also, a place to drown, losing all sense of our own voice, our own contribution and conversation" (p. 24). Whyte goes on to describe the three marriages that cause movement toward true adulthood, self-actualization, and maturity, the marriages with the self, calling (or work), and the other (specifically in marriage) making extensive use of analogy through the writer's own life and the lives of well known figures

in English literature such as the Brontes, Dante, and Robert Lewis Stevenson focusing on profound personal struggle as a precursor to necessary growth.

The eroding qualities of work life are further elucidated by Maurer et al. in their article “Career-Relevant Learning And Development, Worker Age, And Beliefs About Self-Efficacy For Development” (2001) where they describe the reality that, “older” workers (approximately age 53.4 and up) (p. 126) have the greatest need for skill-building but also the greatest social and psychological impediments to learning due to extended stress and repeated failures in the workplace as well as physiological changes. Maurer suggests that organizations must provide older workers opportunities for successful experiences with challenging tasks and assignments that stretch the boundaries of their current competencies and accept that there will be differences in employees’ ability to learn and apply new knowledge quickly. He also encourages organizations to build managerial awareness of age stereotypes which may limit opportunities for older workers and build awareness of learning and application successes on the part of older workers. His research shows that including older workers as models of successful learning and application in training materials examples and encouraging training and development among all employees regardless of age while reasonably accommodate age-related physiological limitations results in positive outcomes for older workers. Similarly, reducing any emphasis on competition there may currently be in work-related learning environments helps create more positive learning outcomes (2001, p. 136). Maurer’s research indicates that, particularly with regard to older workers, successful skill building competes effectively with waning self-efficacy.

Later we will see that Koestenbaum & Block believe that the range of support Maurer is suggesting above could actually impair personal growth and character development by underscoring a parental role on the part of the organization with regard to the employee. In Argyris (1991) above we see that true learning only occurs through a process wherein reflection on any shortcoming in execution can occur and mental models are adjusted without fear of undue punishment for failure, which is native to the learning process. Argyris points to the tendency to engage in defensive reasoning that has the effect of avoiding accountability for one's actions as the dominant mode in most organizations. In the third section of this chapter in Schwaber (2004) we will see how the structure of Scrum builds in periodic reflection within group settings and supports group and individual learning through regular opportunities to adjust mental models so as to execute tasks differently next time and improve likelihood of success. Nonetheless, Maurer's point with regard to long term exposure to the hazards of work life diminishing self-efficacy is well taken and resonates with Whyte's (1994) "pleasurable gleam of wickedness" which equates dues-paying with apathy.

The Pursuit of Character and Integrity

The pursuit of strong character has much to do with the learning and reflection processes. In *Ethical Leadership: The Quest For Character, Civility, And Community* (2009) Fluker defines character as "an adventure of sorts, a quest for unity of self, and consciousness—more like a prize or goal that is sought" (Fluker, 2009, p. 57) and adopts Carter's definition of integrity which "places emphasis on the wedding of cognitive and affective dimensions of integrity as a practice. . . . (1) *discerning* what is right and wrong; (2) *acting* on what you have discerned, even at personal cost; and (3) *saying*

openly that you are acting on your understanding of right and wrong." With a nod to Dreher, Fluker says that "Integrity informs the leader's actions and practices," (p. 66) and that integrity has also to do with freedom and self-regulation. What I stand for in any given situation is determined by the measure of my inherent dignity and self-worth. Integrity is demonstrated through the choices that I make regarding what is of value to me (p. 67).

Dreher in *The Tao of Personal Leadership* (1997) founds much of her argument on wisdom in the *Tao Te Ching* which she says "affirms *personal leadership,* the enduring power of character." (Dreher, 1997, p. 13) She quotes the *Tao Te Ching* as follows:

> All actions flow from the Tao.
> Character (Te) shapes them.
> Circumstances complete them.
>
> The ten thousand things
> Honor Tao
> And revere Te
> Not by custom or law,
> But by their own nature.
> Therefore the Tao creates
> And Te cultivates,
> Nurtures and protects,
> Promotes, but does not possess,
> Empowers, but does not take credit,
> Leads without dominating.
>
> This is the power of character.
> (Tao, 51) (Dreher, 1997, pp. 14-15)

While many people may assume that leadership implies an individual with other individuals functioning as followers, Dreher points out that by some standards we are all leaders though that leadership may be manifested in our homes, community work, or other avocations. She characterizes leadership as a matter of vision, empowerment, and

active continuous growth which requires and manifets courage and strength of character. "Who we are ineffably imprints on what we do" (Dreher, 1997, p. 136).

Sennet deals deeply with the issue of character in *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism* (1998). He also considers how the economic context of the individual raises the existential question of symbolic death (more on that from Koestenbaum and Block below) through the specter of uselessness as a result of skill obsolescence and flexible working in *The Culture of the New Capitalism* (2006). Sennet asserts that "the most confusing aspect of flexibility is its impact on personal character. The old English speakers, and indeed writers going back to antiquity, were in no doubt about the meaning of "character": It is the ethical value we place on our own desires and on our relations to others. Horace writes that the character of a man depends on his connections to the world" (Sennet, 1998, p. 10). In *Corrosion* Sennet details two extended case studies, one in which he describes a father and son who represent the change in work life in the 20th century. Enrico, a Greek immigrant, is a baker whose stable workplace and family wage allowed him both an income sufficient to provide a home and education for his children as well as time to be with his children, enact the role of a caring father, and also meet his own needs for connectedness and camaraderie in his community. Rico, Enrico's son, is a computer consultant whose work requires a great deal of regular travel, as does his wife's work. Neither of them are available to provide the kind of daily stability for their children that they would like though the incomes generated by their work allow them to provide a much higher material standard of living than Rico experienced as a child. Enrico's "deepest worry is that he cannot offer the substance of his work life as an example to his children of how

they should conduct themselves ethically. The qualities of good work are not the qualities of good character" (p. 21). Sennet goes on to say of Rico's dilemma that "short-term capitalism threatens to corrode his character, particularly those qualities of character which bind human beings to one another and furnishes each with a sense of sustainable self" (p. 27).

The second case study Sennet provides is that of a small business owner, Rose, whose bar in New York is successful enough to provide her with a comfortable living, and who has, at middle age, decided that she may be missing out on some of what life has to offer. She wants a change and a challenge and decides to sell the bar and make a career change to advertising in Manhattan. Her excitement is short-lived and alienation and disillusion quickly come up for her in this fast-paced and highly flexible workplace. "The successful people in advertising are not necessarily the most ambitious," she learns "since everyone is driven. The really successful ones seem the most adept at walking away from disaster, leaving others to hold the bag . . . 'The trick is, let nothing stick to you'" (Sennet, 1998, pp. 78-79). Rose soon learns that the flexible, fast-paced, human-as-commodity culture she has walked into is not for her and she returns to the bar. Sennet asserts "Being continually exposed to risk can thus eat away at your sense of character" (p. 84). In Sennet's estimation, "(t)eamwork is the group practice of demeaning superficiality" (p. 99) because "(g)roups tend to hold together through keeping to the surface of things; shared superficiality keeps people together by avoiding difficult, divisive, personal questions. Teamwork might seem to be just another example, therefore, of the bonds of group conformity" (p. 108).

In *The Culture of the New Capitalism* (2006) Sennet explores "how the specter of uselessness relates to the solution of education and formation," (Sennet, 2006, p. 84) which might also be called character development. He also addresses how the quality of one's work informs the quality of one's experience. Sennet's notion of *burnout* relates not to the state of the individual but the numbing character of the work she is doing (2006, p. 95). He attributes the "specter of uselessness" to "skills extinction" lamenting the fact that frequent re-training and lifelong learning are now the norm in many fields from technology to law to medicine: "That is, when you acquire a skill, you don't have a durable possession" (Sennet, 2006, p. 95).

Sennet insists that knowing how to do something well naturally relates to caring about how it is done, prefiguring a later volume he wrote on the notion of craftsmanship. He again turns to the software industry for an example describing a group of disgruntled programmers who were offended by their company's policy of releasing software with known defects and thereby requiring their customers to continue the testing phase of the software development lifecycle in their own homes and organizations. These programmers' "sense of meaningful work depended on doing this job well for its own sake" (p. 106). Sennet sees hope for reinstituting a sense of narrative connection at work. The three reasons for hope are the emergence of "'parallel institutions' which seek to afford workers with . . . continuity;" job sharing to support connections to both ongoing work and supportive community; and policy-making around providing a 'base income' supplied by the state which acts as an economic safety net. It's worth noting that, though online community and telecommuting were emerging and had become established while Sennet was developing the content for these two books, neither were explicitly

considered with regard to his themes of character and it's corrosion through lack of stable work environments or teamwork. Later we will see how Scrum addresses concerns of craftsmanship, usefulness, and narrative movement. Sennet also does not consider the value of transparency as a counterbalance to the ethic of commitment.

Facilitative Leadership, Servant Leadership, Chaordic Leadership and Presencing as Tools and Tests of Character

As we will see later in this chapter, the role known as the Scrum Master is a facilitative servant leader. The importance of this particular approach to leadership will be discussed in greater detail in chapter three of this thesis.

Facilitative leadership is contrasted with autocratic behaviorism by Reilly in *Facilitative Leadership: Managing Performance without Controlling People* (1996) where he demonstrates skills for facilitative leaders and contrasts them with the autocratic behaviorism typical of earlier management styles. Autocratic behaviorism, Reilly says, works well in deeply hierarchical organizations in which managers make most of the decisions. This model focused on controlling employees' behavior at a very low level whereas the more effective strategic stance of today's facilitative managers is to teach employees the skills and inculcate the judgment necessary to make better decisions in the absence of management direction (Reilly, 1996, pp. III-VI). As Reilly sees it "facilitative leadership doesn't mean holding people accountable. It means helping people hold themselves accountable" (p. 15). In this slim volume, Reilly discusses the psychological shift the leader needs to make to move from being a people controller to a performance encourager including changes in setting expectations, using intrinsic (pride) rather than extrinsic (punishment) motivation, negotiating standards and boundaries, providing effective feedback, and using strategic non-intervention. Strategic non-intervention is characterized as allowing the individual to fail when the learning benefit to the individual sufficiently outweighs the failure cost to the organization (pp. 97-98). An interesting alignment between Reilly's approach and the Scrum Master role is that "the three tools

facilitative leaders have to help people become more responsible are feedback, strategic non-intervention, and choice of consequences" (p. 93). Resonant with Koestenbaum and Block's notion of the beneficent effects of grappling with individual free will, as we shall see later, is Reilly's notion that people are truly empowered when they accept responsibility and hold themselves accountable for work based on their own intrinsic motivations for doing so (p. 120).

Bens in *Facilitate to Lead! Leadership Strategies for a Networked World* (2006) contrasts facilitative leadership with traditional directive leadership and claims that traditional directive leadership made more sense when leaders typically had greater content expertise than their team members whereas today's technologies and work content tends to be highly specialized and rapidly evolving requiring a team of specialists to stay current in the fields while simultaneously working together to do the work at hand (p. 11). She describes facilitative leaders as being not only "people savvy" but having a strong orientation toward group processes such as meeting design and execution. Facilitative leaders need to have skills in collaborative work processes, interpersonal communication, conflict management, and be able to operate through influence "without status or rank consciousness" (pp. 12-13). She sees the organizational benefit of shifting to facilitative leadership as an increase in continuous improvement activities, emergence of dialogue, support for collaboration and innovation, increased worker commitment and motivation, and more highly performing teams (p. 14). A table which compares and contrasts the directive and facilitative leadership approaches and which aligns nicely with Reilly is provided in Appendix C.

Greenleaf published *Servant Leadership: A Journey into the Nature of Legitimate Power and Greatness* in 1977 but it is the first chapter in this book "The Servant as Leader," which was written in 1969, which is of greatest value to this thesis and particularly this section which considers leadership from the individual perspective. After describing the genesis for his own writing as a result of many years of corporate experience and thinking about the kind of leaders who will be needed in the future, crystallized by a reading of Hesse's *Journey to the East*, Greenleaf briefly describes the notion of servant as leader. Then, he presents his understanding of prophecy and the notion of contemporary prophets, a prophet being somewhat different from a leader in the popular imagination in that the existence of the prophet does not imply a group of adherents or followers. Greenleaf writes, "I now embrace the theory of prophecy which holds that prophetic voices of great clarity, and with a quality of insight equal to that of any age, are speaking cogently all of the time" (Greenleaf, 1991, p. 8). With regard to power and authority he writes that people are beginning to learn to lead and relate to each other in less coercive and more creative ways. He relates this to a new moral principle (reminiscent of Macy's work) which says that only leaders whose authority is granted by the led are worthy; this results in the corollary that those who hold this principle will neither casually nor automatically accept the authority of existing institutions but will "freely respond only to individuals who are chosen as leaders because they are proven and trusted as servants" *(1991, pp. 9-10).* Of particular interest to Scrum practitioners may be Greenleaf's comment that, "(m)y good society will have strong individualism amidst community," (p. 13).

Greenleaf describes the servant-leader as "servant first . . . It begins with the natural feeling that one wants to serve, to serve *first."* He identifies the key indicator of a servant-leader that the served "grow as persons." "Do they, *while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?" (pp. 13-14). Greenleaf ascribes the quality of initiative to leaders (p. 15), and being good listeners to natural servant leaders—they "listen first" because "*listening builds strength in other people*" (italics mine) and he quotes St. Francis: "Lord, grant that I may not seek so much to be understood as to understand" (p. 17). The following pages of the chapter provide advice, examples, and cautions to the servant leader including the wisdom of withdrawing and recuperating, the value of acceptance ("receiving what is offered, with approbation, satisfaction, or acquiescence") and empathy ("imaginative projection of one's own consciousness into another being") when dealing with others. Then he enters a consideration of the leader's consciousness itself, her intuitive ability, foresightfulness, awareness, and perceptivity in which he does not distinguish servant leadership from other modes of leadership. Then he uses the example of abolitionist John Woolman as an example of the practice of persuasion, a servant leader because he aspired to free the best in others (pp. 29-30), and Thomas Jefferson as an example of stepwise acting out of who one is, making one's own choices even in the face of the flattery of being offered powerful and influential positions "he knew who he was and he resolved to be his own man" (p. 31). He identifies "conceptualizing" or envisioning as "the prime leadership talent," (p. 32) and considers the dual nature of power and authority. Greenleaf writes, "Part of our dilemma is that all leadership is, to some extent, manipulative. Those who follow must be strong!" (p. 42) and apparently, this strength is to be engendered by the

servant-leader who sees to it that the followers become “healthier, wiser, freer, more autonomous” (p. 13).

Servant-leaders see themselves as part of the system they serve. The problems they encounter are seen as “in here, not out there” (Greenleaf, 1991, pp. 43-44). And Greenleaf identified the enemy of servant leadership as “*strong natural servants who have the potential to lead but do not lead, or who choose to follow a non-servant.* They suffer. Society suffers” (p.45).

Dee Hock in “The Art of Chaordic Leadership” (2000a) rings the same bell as Greenleaf when he says "A true leader cannot be bound to lead. A true follower cannot be bound to follow" (Hock, 2000a, p. 21). He describes an example where he, as a rancher, a role he had created for himself after leaving Visa corporation where he created and led an extremely successful chaordic organization, is faced with a crisis in a storm out in open ranch country. One of his cows had calved on the edge of a bank along a swift flowing creek, and the calf had fallen into the creek. As the rancher and as a compassionate human being, Hock saw it as his job to rescue the calf in the face of the perturbed bawling of the cow and the outrage of a bull, who had apparently arrived in response to the cow’s bellowing. Hock presents this situation as an example demonstrating leadership (rescuing the calf from the creek) in the context of environmental and social chaos. Hock states that “(l)eader presumes follower. Follower presumes choice,” Hock also asserts that “One who is coerced to the purposes, objectives, or preferences of another is not a follower in any true sense of the word but an object of manipulation. . . . . Induced behavior is the essence of leader/follower. Compelled behavior is the essence of all the other relational concepts.” Hock differs with Greenleaf

in that he believes “It is not making better people of others that leadership is about. In today’s world effective leadership is *chaordic*. It’s about making a better person of oneself. Income, power, and position have nothing to do with that. In fact, they often interfere with it.” In a separate publication in the same year, Hock describes the nature of chaordic leadership. In “Birth of the Chaordic Age,” (2000b) Hock introduces the notion of the non-hierarchical organization as the organizational form of the future and shows it's benefits over the earlier model. Therein he states:

> Most organizations are based on compelled behavior—on tyranny, for that is what compelled behavior is, no matter how benign it may appear or how carefully disguised and exercised. Future organizations will embody community based on shared purpose (p. 6).

Scharmer in *Theory U: Leading from the Future as It Emerges* (2009) focuses on the leader as change agent facilitating change in organizations by focusing on moments that are ripe for change. Scharmer adopts the view of “the human being as a being of freedom—as a being that is defined by the capacity to make the choice between acting in habitual ways and connecting with one’s deepest source of creativity, ethical action, and freedom” (Scharmer, 2009, p.96). This is reminiscent of Greenleaf’s hallmark of the servant leader as causing followers to become progressively “healthier, wiser, freer, more autonomous” (Greenleaf, 1991, p. 13). Scharmer describes Theory U as the social technology of presencing and asserts that each individual and community is two selves, that which we have become as a result of our journey from past to present and the dormant self, the one waiting to be born (Scharmer, 2009, p. 189) as a result of presencing. “Presencing is the process of connecting these two selves. To connect our current with our authentic self. To move toward our real self from the future” (p. 189). Presencing is grounded on the systems thinking principle of emergence, a systems

thinking principle which relates to the way complex systems arise out of relatively simple interactions (see Corning, 2002). On page 236 Scharmer specifically links emergence with presencing as "deep social emergence".

In *Theory U*, Scharmer develops his theory of leadership through the process of presencing into five movements: co-initiating, co-sensing, co-presencing, co-creating, and co-evolving. Within each of these movements is a set of principles and practices to actualize the movement, 24 principles and practices in all (see Appendix A). The principles and practices, which are detailed in the text, provide the leader with both guidance and a container for their practice, which Scharmer characterizes as a specific kind of deep listening which allows the leader to identify the future that wants to emerge for a specific organization and then lead from that perspective.

Scharmer details three voices which impair the movement up the "U:" the Voice of Cynicism, the Voice of Fear, and the Voice of Judgment. The Voice of Judgment is seen as an inner enemy of the Self which blocks the gate to the open mind (2009, p. 42). The Voice of Cynicism is the enemy that blocks the gate to the progress of the Self on the journey to the authentic Self, that is, confronting the questions "What is my self?" and "What is my work?" The Voice of Fear is the third enemy that blocks the gate to the open will, which prevents the Self from letting go of what we have and who we are in order to allow emergence to occur.

Four fields of conversation, and in this case "field" refers indirectly to field theory, used to navigate from one movement to another in the journey down and back up the "U" are "downloading" or "talking nice" which is also known as politically correct speech; "debate" or "talking tough"; "dialogue" or "reflective inquiry"; and "presencing"

or “generative flow.” The four fields of conversation are among the 21 propositions of social field theory Scharmer covers in his chapter on the detailed grammar of the social field, a crash course on how social interaction constructs human reality when that reality is instantiated in a group. Through this chapter, Scharmer provides a number of different detailed slices of theory U which are essentially sets of tools to help the reader enter a human system and navigate the social field in a manner that will allow the system to move through the five movements of the U.

While in the systems thinking section of this thesis we saw evidence that there is significant dysfunction in the current dominant paradigm and that adapting to that dysfunction is unwise and unhelpful, and asserting a more helpful and useful form of leadership will take tremendous personal resources. Scharmer recommends forming a core group for support (Scharmer, 2009, p. 385) but core groups can be flawed in what they choose to support (an ironic oversight on Scharmer’s part as many of his case examples came from Hitler’s Nazi movement which was driven by such a classic core group). To provide balance and improve personal accountability and clarity in concert with feedback from the core group, principles and practices provided in Mindell’s work appear useful.

In *The Leader as Martial Artist* (1992) Mindell describes the use of aikido principles and field theory in enacting his practice of “worldwork” in group facilitation. Worldwork is a depth application of process-oriented psychology which works with dream and body connections within individuals, relationships, and groups (p. 4). Mindell defines fields as natural phenomena that include everyone, are omnipresent, and exert forces upon things in their midst. They organize their members’ identities, are

boundaryless, can be felt as forces, are multichanneled in terms of our ability to perceive them, have humanlike characteristics, are dreamlike entities that manifest themselves in a physical reality, and evolve their natures (pp. 12-20). In preparing to engage in worldwork, Mindell did an extensive amount of study and meditation, one product of which was *Working on Yourself Alone* (1987) which is "meant to be a self-contained introductory and training manual on inner work on oneself using process-oriented psychology without the help of a therapist" (p. xi). This little book provides a comprehensive overview of meditation practices and their uses in increasing self-awareness. It concludes with some considerations of applications to worldwork. Like Whyte, Mindell sees relationship as fertile territory for expansion of self-knowledge and self-realization.

The quality of awareness and exploration of consciousness that Mindell is striving for is made manifest in the final chapter of *Working on Yourself Alone* in the guiding question "Who is here?" "Consciousness refers to being aware of your awareness" (Mindell, 1987, p. 113). "The way awareness works in us is, I believe, by constantly and patiently chipping away at our lives in order to bring out our original form, visible in our childhood dream, in our personal myth" (p. 114). The meditative practices Mindell describes can have the effect of increasing detachment (p. 115), a valuable quality to bring into coincidence with the kind of complex human systems process Scharmer is describing above.

Existentialism as Applied to the Workplace Context

Peter Koestenbaum, a trained existential philosopher, published *Managing Anxiety* in 1979. In this book he describes existential anxiety as a state that "reveals deep truths to us, truths not available through other means, such as the senses or scientific measurements. Furthermore, the truths thus revealed answer the questions associated with our needs for meaning, authenticity, and human fulfillment" (p. 156). Later Koestenbaum writes, "(t)he role of philosophers in America is not unlike the role of the poet and novelist in Russia. Like Socrates, they are the conscience of all individuals. They are not a conscience in the sense of setting moral rules, not at all. Philosophers are the conscience of people because they remind people of the nature of their humanity" (p. 190)—reminiscent of the stance of Greenleaf's servant leader.

In 2001 Koestenbaum partnered with Peter Block, a well-known business consultant, to publish *Freedom and Accountability at Work: Applying Philosophic Insight to the Real World* in which they, in alternate chapters, describe existentialist principles and apply them to the workplace with an eye to quality of life for the worker. The authors write, "(t)he way we lead or manage, and the way we construct our institutions, depends on our theory of what it means to be human" (Koestenbaum & Block, 2001, p.100). Koestenbaum and Block define employee development as an opportunity for self-definition that is of benefit to the employee as much or more than it is of benefit to the organization, thereby deprecating the notion that organizations are responsible for employee development. Typical language around employee development implies ownership of the employee by the organization, abjured by Koestenbaum and

Block: "If we stop possessing people, then our organizations can support learning and have a stake in learning, but are not responsible for it" (p. 107).

The authors contend that leadership is abundant, not rare, and that what we think of as organizational leaders "exist to . . . see where the institution should be placed in its marketplace. We need a vision about where the enterprise should be headed; we do not need a vision from leaders about how we should behave and what values we should embrace" (Koestenbaum & Block, 2001, p. 110). By expecting employees to act as freely choosing individuals accountable for meeting their promises and commitments, these authors assert that light will shine in places where either the employee or the organization once hid. "This would begin to give us a real world" (Koestenbaum & Block, 2001, p. 111).

The authors acknowledge that the environment they propose to create will have higher anxiety levels but believe it will be the right kind of anxiety: existential or authentic anxiety reveals the truth of what it means to be human (Koestenbaum & Block, 2001, pp. 124-125). They assert that the cultivation of a tolerance for existential anxiety (that we are impermanent and will at some point die) results in a lifestyle that leads to self-actualization and authentic existence (p. 135) and that the presence of anxiety may be an indicator of ongoing growth (p. 142). Therefore, if we seek the greatest learning and most rapid and holistic reconstructive transformation "we must seek out the maximum amount of tolerable anxiety" (p. 143). Putting the organization in a power-over, or as Hock would name it "coercive" power relationship with the employee causes employees to lose control over what is essentially theirs: power of choice, actualizing of free will and authentic existence, the boundary that contains the individual as a self-organizing

system or holon, to use systems theory parlance. However, the recognition of these individual system boundaries and the accountability that goes with the individual's free will and power of choice, the authors believe, likely helps the employee to experience their own freedom, even if that experience is an anxious one (p.153). This is reminiscent of Greenleaf's servant leader model.

Koestenbaum & Block (2001) assert that "all healing occurs in relationships" (Koestenbaum & Block, 2001, p. 160) and that the proper working out of existential anxiety is to wind our way down the lifelong path of entering into healing relationships (as in a functioning Scrum Team), mapping the effects of our decisions to our current reality in the context of our free will and personal freedom (as in a retrospective), expressing our experience of that freedom in language, taking risks and translating the anger that can come about from the anxiety of freedom into a constructive force for personal growth, but, above all, refusing to surrender our freedom in exchange for a soothing of our anxiety. We cannot surrender our free will anymore than we can surrender gravity. (Koestenbaum & Block, 2001, p. 160)

The proper working out of existential anxiety will result in maturity and stronger character. "Job satisfaction is decreasing, stress is growing, and all try to manage this as best they can. The differentiators, when we use philosophy, become character and maturity" (Koestenbaum & Block, 2001, p. 392). Koestenbaum and Block go on to describe character and maturity as being associated with aspects of leadership which include self-motivation, understanding the larger context, and taking initiative. Character and maturity are also shown when we manage our own feelings, overcome self-pity, and personally initiate "the spirit of co-creation." Helping others deal with their sense of

alienation, modeling ethical behavior such as keeping promises and being of service to others are other aspects of good character and mature behavior. People who are mature and of good character understand the nature of free will and the freedom and accountability free will implies. They accept that life cannot be well led without courage and that values such as pride, duty, obligation, and honor do matter. Further,

> When all is said and done, we feel good, we feel special, about people of integrity, of substance, in short of character and maturity. (Koestenbaum & Block, 2001, p. 393)

A Systems Thinking View of Leadership, Ethics, and Culpability

In *The Emergence of Leadership: Linking Self-Organization and Ethics* Douglas Griffin (2007) considers the ethical arguments made by Sennet in *The Corrosion of Character* and Wheatley in *Leadership and the New Science*. In doing so he particularly pays attention to "as if" and "both and" implications underlying these texts, referring to the reasoning of Immanuel Kant, specifically, Kant's *Metaphysics and Morals* and *Critique of Judgment*. Griffin calls into question the notion of locating ethical responsibility in the organizational system, though he acknowledges this is a common practice today.

> To emphasize the point, I am arguing that nowadays we locate ethical responsibility in both the "system", simply taking it for granted that a "system" can be ethically responsible, and in a few individuals. In doing this, we adopt a particular view of leadership in which it is individual leaders who are blamed and punished when things go wrong, or praised and rewarded when things go right. The rest of us are allocated to passive roles as victims of "the system", and of manipulative leaders, and our salvation lies in the actions of heroic leaders. In thinking in this way, we are obscuring how we are all together involved in the dangerous situations that arise. Perhaps this is why we find ourselves repeatedly exposed to these dangerous situations (Griffin, 2007, pp. 3-4).

Later in this chapter we will see Paulk, a contemporary Scrum researcher, characterize Scrum as not a method but a set of cultural values. Griffin (2007) considers the risk of systemic self-organization that individuals are seen as victims of the system and posits "participative self-organization," which relies on an interpersonal and social process theory approach, to remove the risk of the individual being reduced to a victim within a self-organizing system (pp. 206-207). Griffin points out key areas, such as definition of "paradox" and conceptualization of the leader or change agent as outside the system, in which authors such as Senge, Wheatley, and Sennet have misinterpreted the reasoning of Kant in a manner that results in compromising the autonomy and accountability of the individual.

> This leads to an ethics that is quite contrary to Kant in that autonomous individuals are required to participate in, submit themselves to, some larger whole or greater good. No longer are the autonomous individuals trying to discover in their actions what the ethical imperatives reflecting the not-to-be-defined whole are. Instead they are required to submit themselves to the visions and values revealed to them by their leaders, or democratically chosen by them as empowered individuals. In doing so they lose their autonomy, except for the occasion on which they choose in an empowered group. . . The ethical choice is that of voluntary submission to a larger harmonious whole in which people lose their autonomy (p. 209).

Griffin points out that this way of thinking about leadership and ethics results in a situation in which, primarily, the leader, as system designer, is free to choose actions and explore the ethical implications of those actions—as opposed to every individual having that freedom. Griffin sees paradox here but notes that the theorists who espouse this view do not and inherent contradictions in their theories and hopes for the organizations are simply not noticed by them.

Griffin calls into question modern theories of learning organizations and living organizations on these grounds inasmuch as he sees them as presenting utopian views

(the "harmonious whole," above) of human beings which "ignore diversity and conflict and their role in generating novelty" (2007, p. 209). Rather than subscribing to a harmonious whole utopia, Griffin calls upon the reader to recognize the role and value of conflict in working out ethics between individuals and helping them move toward wholeness (pp. 196-201).

Using Conflict to Inspire Growth and Nurture Innovation

Like existential anxiety, conflict is another experience that workers tend to avoid if possible, though, as we have seen, Griffin's work encourages the reader to seek the value in conflict. The leader needs to be prepared to facilitate effective conflict engagement in order to draw from conflict all the benefits it can bring. A conflict model which many organizations find effective is the Thomas-Kilmann model. A large body of research has been amassed to support the validity of the Thomas-Kilmann Conflict Mode Instrument (TKI) which helps individuals identify their dominant mode in the five mode model: Competing, Collaborating, Compromising, Avoiding, and Accommodating—collaborating being both the most assertive and the most cooperative (Kilmann & Thomas, 2007, pp. 7). Each mode is valuable in certain circumstances (pp. 12-16) though, as Csikszentmihalyi's research showed, the higher the level of cooperative challenge, the greater the likelihood that we will develop toward wholeness.

In *Introduction to Conflict and Teams* (2004) Thomas and Thomas discuss the notion of a conflict dominant style on a team and see the leader's dominant style as so influential that, if it is not the same as the most frequent style on the team, the team is seen as having two substyles, the leader's and the dominant style on the team (p. 27). Further the authors write, "(n)otice that collaborative teams tend to be better than other

teams at decision making—especially on important and complex issues, which require much information exchange and some creativity . . . Teams with other styles can increase their effectiveness if they can recognize those challenges and develop remedies to meet them" (p. 30).

Having considered contributions to this thesis from systems thinking and leadership, we will now consider how agile methods and frameworks, specifically Scrum, facilitate character recovery and personal integrity in the workplace.

The Contribution of Agile Methods

Agile methods and frameworks in software development have been progressively established over the last ten years since a gathering of respected industry "giants" at Snowbird in Utah resulted in the Agile Manifesto and the Principles Behind the Agile Manifesto. The Agile Manifesto reads:

> We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:
>
> **Individuals and interactions** over processes and tools
> **Working software** over comprehensive documentation
> **Customer collaboration** over contract negotiation
> **Responding to change** over following a plan
>
> That is, while there is value in the items on the right, we value the items on the left more. (www.agilemanifesto.org)
>
> The Principles Behind the Agile Manifesto read:
>
> We follow these principles:
>
> Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
>
> Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

> Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
>
> Business people and developers must work together daily throughout the project.
>
> Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
>
> The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
>
> Working software is the primary measure of progress.
>
> Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
>
> Continuous attention to technical excellence and good design enhances agility.
>
> Simplicity--the art of maximizing the amount of work not done--is essential.
>
> The best architectures, requirements, and designs emerge from self-organizing teams.
>
> At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly. (www.agilemanifesto.org/principles.html)

In these brief statements we see the work of Ackoff, Argyris, and Senge reflected, the work of Kira and Eijnatten forecasted, the insights of Wheatley and Csikszentmihalyi honored, the work of Macy and McTaggart intuited, the inspiration of Koller made room for, the cautions and insights of Whyte and Sennet honored, the aspirations of Fluker, Dreher, Greenleaf and Hock given space to actualize in a set of principles that demand the disciplines of Scharmer and Mindell, the assertions of Koestenbaum and Block, and the applied research of Thomas and Kilmann for those who will be its highest performing exemplars.

An Overview of the Agile Framework Known as Scrum

The group of work processes known as "agile" or the "agile methodology" is actually a set of frameworks, best practices, and methods derived from a number of sources. Scrum is the most commonly applied project management framework among agile practitioners according to a survey conducted in 2010 by VersionOne, one of the leading vendors of agile project management tools (http://www.versionone.com/state_of_agile_development_survey/10/page3.asp).

To purists, *The Scrum Guide*, originally written and now maintained by Ken Schwaber and Jeff Sutherland (last updated as of this writing in July 2011 and published as a freely available guide on Scrum.org), is the defining document of this framework. However, a host of other publications including books published by major publishers such as Microsoft Press, web sites such as Controlchaos.org, myriad blogs, and official and unofficial training curricula designed to train and certify the participants in the Scrum domain are available. This survey of the literature on Scrum will be conservative in its approach to the subject, assuming no knowledge of the framework and hewing close to the trail blazed by Schwaber and Sutherland, the acknowledged creators of the framework.

Two of the first books on Scrum were *Agile Software Development with Scrum* (Beedle & Schwaber, 2001) and *Agile Project Management with Scrum* (Schwaber, 2004). The second book lays out the framework in a case-based manner describing the rationale for developing the framework, the problems its creators were attempting to address, the roles required to implement the framework, standard artifacts and activities in a given cycle or "sprint," and the rules to be observed. The following is an overview of Scrum as summarized from Schwaber's *Scrum Methodology: Incremental, Iterative*

Development from Agile Processes (Schwaber, 2003a), *Scrum: It Depends on Common Sense* (Schwaber, 2003b), *Agile Project Management with Scrum* (Schwaber, 2004), and *The Scrum Guide* (Schwaber & Sutherland, 2011). The elaboration and clarification of this methodology at a detailed level is a matter of constant hot debate at conferences, in various online forums, and in print and e-books that are rapidly proliferating. It is not the purpose of this section to describe the framework at a sufficiently detailed level to require the use of those sources.

The Roles

There are three roles in Scrum: the Product Owner (a single person), the Scrum Master (a single person), and the development Team (a group of three to nine individuals who, collectively, have all the skills needed to complete the work and deliver the increment) (Schwaber & Sutherland, 2011, pp. 5-7). The latest version of the *Scrum Guide* goes into depth on the servant leader nature of the Scrum Master role (p. 7) and emphases the self-organization responsibilities of the Team: "They are self-organizing. No one (not even the Scrum Master) tells the Development Team how to turn Product Backlog into Increments of potentially releasable functionality" (p. 6), which does not preclude them from asking for help: "The Team can seek outside advice, help, information, and support during the Sprint" (Schwaber, 2004, p. 136).

The three Scrum roles are further delineated as follows:

The Product Owner

Defines the features of the product

Manages project features and release to optimize return on investment (ROI)

Prioritizes features according to market value

Inspects increment and makes adaptations to project

Can change features and priority every 30 days

Communicates project progress and status

The Team

Cross-functional, seven plus/minus two members

Selects the iteration goal and specifies work results

Commits to what it feels it can accomplish

Has authority to do everything within existing standards and guidelines to reach the iteration goal

Manages itself and its work

Collaborates with Product Owner to optimize value

Demos work results to the Product Owner

The Scrum Master

Ensures that the team is fully functional, productive and improves quality

Enables close cooperation across all roles and functions and removes barriers

Shields the team from external interferences

Ensures that the process is followed

Teaches Product Owner and Team how to fulfill their roles (Schwaber, 2003b, p. 50)

The Meetings and Artifacts

To help provide information to stakeholders in the effort, the people in the three roles described above are required to create a set of artifacts: the Product Backlog, the Sprint Backlog, the Sprint Burndown Chart, and the Increment of working product (Schwaber & Sutherland, 2011, pp. 12-15). The Product Backlog is an ordered list of product features and functions the Product Owner desires; the purpose of the Product

Backlog is to provide the Team with information about what needs to be built. The Sprint Backlog is a subset of the Product Backlog that is selected by the Team in priority order, highest priority first, and represents the product features to be supplied in the Increment resulting from this Sprint. The Sprint Burndown Chart is a visual representation that shows how quickly the Team is delivering the product features described in the Sprint Backlog and is focused on the amount of work remaining to be done during the Sprint time box (Schwaber, 2004, pp. 11-12).

The activities in the Scrum Framework are largely contained by the *Sprint*, a time period (known as a "time box" in Scrum) of one month or less (Schwaber & Sutherland, 2011, p. 8). Inside this time box are a series of standard meetings: the Sprint Planning Meeting, the Daily Scrum, the Sprint Review, and the Sprint Retrospective. Sprints are immediately consecutive with no downtime in between (p. 8) The Sprint Planning Meeting is held in two parts, the first part being for the purpose of discussing what will be done in the upcoming sprint and the second part is for the purpose of discussing how the work will be done (pp. 9-10). Governing the discussion of how to organize to accomplish the work in the Sprint is the Sprint Goal which is "an objective that will be met within the Sprint through the implementation of the Product Backlog, and it provides guidance to the Development Team on why it is building the Increment" (p. 9) and the definition of "Done" (p. 15). This goal is crafted by the Team and presented to the Product Owner when the Team discusses with the Product Owner, in part two of the Sprint Planning Meeting, what will be done and how (pp. 9-10). The definition of "Done" is a key aspect of the framework (Schwaber, 2003b, p. 57; Schwaber, 2004, p. 137; Schwaber & Sutherland, 2011, p. 15); it helps the Team achieve the desired level of

quality and fosters transparency and collaboration between the Team and the Product Owner.

The next activity in the Sprint is the Daily Scrum. Note that "Scrum" is not an acronym, it's a metaphor taken from the team sport known as Rugby and is taken from a technique in that sport used for getting an out-of-bounds ball back into play (Schwaber, 2004, p. 142). The Daily Scrum is typically held at the beginning of the work day and is constrained to 15 minutes no matter how many Team members there are on the Team. All Team members are required to participate by answering the following three questions:

- What has been accomplished since the last meeting?
- What will be done before the next meeting?
- What obstacles are in the way?

This meeting supports Team communication and self-organization. The Scrum Master attends to support the self-organization process and assure that Scrum process is adhered to. The Product Owner may attend but is optional and attends only as an observer (Schwaber, 2004, p. 136).

Each Sprint is concluded by a Sprint Review meeting followed immediately by a Sprint Retrospective meeting. "The Sprint Review meeting is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. . . . This is an informal meeting, and the presentation of the Increment is intended to elicit feedback and foster collaboration" (Schwaber & Sutherland, 2011, p. 11). Only work which is "Done" may be demonstrated for acceptance by the Product Owner at the Sprint Review meeting. A Sprint Review meeting "includes the following elements:

> The Product Owner identifies what has been "Done" and what has not been "Done";
>
> The Development Team discusses what went well during the Sprint, what problems it ran into, and how those problems were solved;
>
> The Development Team demonstrates the work that it has "Done" and answers questions about the Increment;
>
> The Product Owner discusses the Product Backlog as it stands. He or she projects likely completion dates based on progress to date; and,
>
> The entire group collaborates on what to do next, so that the Sprint Review provides valuable input to subsequent Sprint Planning Meetings. (Schwaber & Sutherland, 2011, p. 11)

Immediately following the Sprint Review, the Team convenes a Sprint Retrospective meeting. The purpose of the Sprint Retrospective is for the Scrum Team "to inspect itself and create a plan for improvements to be enacted during the next Sprint" (p. 12). This is an enactment of and enforcement of double-loop learning as described by Argyris above. Specifically, "(t)he purpose of the Sprint Retrospective is to:

> Inspect how the last Sprint went with regards to people, relationships, process, and tools;
>
> Identify and order the major items that went well and potential improvements; and,
>
> Create a plan for implementing improvements to the way the Scrum Team does its work. (Schwaber & Sutherland, 2011, p. 12)

The Rules

In *Agile Project Management with Scrum* (2004) Schwaber included a set of rules for each of the meetings described above that essentially became the initial Scrum rules; these rules are included in Appendix B to this thesis. Adherence to these rules is voluntary. The rules focus on the mechanics of how to hold the meetings, who may participate, what the purpose and appropriate content of each meeting is. There are

approximately fifty rules, and together, they encourage collaborative processes, transparency, a high degree of interpersonal interaction, and operationalize "The Agile Manifesto" and "The Principles Behind the Agile Manifesto" referenced above. Teams are free to adapt these rules, and thousands of participants around the world and within their own work groups daily debate, discuss, and dialogue about how Scrum should be adapted. Periodically, a new edition of the *Scrum Guide* is released by Schwaber and Sutherland as last occurred as of this writing in July of 2011.

The Values

The Scrum values are commitment, focus, openness, respect, and courage. In *Agile Software Development with Scrum* (2002) Schwaber and Beedle provide a brief case-based example to illustrate each of the values at work on a given Team. The commitment example (pp. 148-149) describes a Team that did not have enough information to allow them to form a firm intention to deliver what the customer desired because the customer had not been clear about those desires; clarification allowed the Team to form a firm intention to deliver. The focus example (pp. 149-150) describes an example in which the Team was distracted by work which was related to their identified immediate and urgent goals; daily refocusing on the development of the product, as facilitated by the Scrum Master's questions at the daily Scrum, allowed the Team to determine what was a distraction and what legitimately demanded their full attention. The openness example (p. 151) describes a Team challenged by the organization to pursue multiple product development paths at the same time. The Scrum Master helped the Team act on the concerns they voiced among themselves by requiring that a specific and single strategy for product development be chosen by the management team

requesting the product. The respect value (p. 152-153) is illustrated by a Team who chooses a technical solution to a product development problem that results in one team member experiencing a mismatch in skills for his job in the new technical environment. Respect is demonstrated through an all-team discussion on the skills mismatch which discussion was brought about by the Scrum Master speaking with the now underperforming Team member about how he could work with the Team to close the gap between his skills and the new technical environment. This discussion resulted in the team member being provided with the necessary skills to close the gap. The courage value (pp. 153-154) is summarized as "the courage to find out that the environment will support these (Scrum) values, and the courage to be willing to find out that relying on one's own judgment is acceptable—even laudable," which is in alignment with Koestenbaum and Block's discussion of the mature exercise of free will. The case-based example related to this value continues the case of the team member wrestling with the skills gap in the prior example. In this case, the Scrum Master helps facilitate the team member's understanding that the authority and responsibility for closing the skills gap resides within him and that his essential tools are his own initiative and intelligence—again resonant with the principles of existential philosophy as described by Koestenbaum and Block.

Current and Recent Research on Scrum

Scrum has become interesting to academics in recent years. A general search in EBSCO Host shows 30 articles containing the subject terms "scrum" and "software development" published between 2005 and 2011; no results were returned before 2005. Of those returned, four seem at least somewhat relevant to this thesis, though none speak

directly to the topic, and a fifth research project is currently in process through Carnegie Mellon University's Institute for Software Research. Carnegie Mellon's Dr. Mark Paulk's unpublished paper "On Empirical Research Into Scrum" describes a research plan for empirical research into Scrum. Paulk characterizes Scrum as not a method but a set of cultural values and, with regard to validity, puts Scrum in the context of known best practices such as top ten risk management and change management in traditional project management. Dingsøyr, Dybå, and Abrahamsson (2008) in "A Preliminary Roadmap For Empirical Research On Agile Software Development" identify the agile methodology, of which Scrum is one method, as a largely unresearched field where actual practice is ahead of theory. This paper represents agile research prior to 2005 but does not focus specifically on Scrum. The authors point to an earlier survey of the literature authored by Dingsøyr and Dybå which showed that as of 2008 thirty-three primary empirical studies they reviewed were distributed across four themes "introduction and adoption, human and social factors, perceptions of agile methods, and comparative studies." (p. 85) Those thirty-three studies focused almost exclusively on the XP (Extreme Programming) methodology. The clear finding they point to is that more research is needed. The strength of this article is that it describes and illustrates a roadmap of desirable empirical research on agile methods and compares that map to the current state of the research which shows less of fifty percent coverage of the field of inquiry possible, a good guide for aspiring researchers in the field. The article does not draw conclusions about the validity of various agile methods.

Lindvall et al. (2002) in "Empirical Findings in Agile Methods" compare plan-driven (predictive) and Agile methods, of which Scrum is one. They touch on Agile's

dependency on tacit knowledge held in human systems as opposed to knowledge management through documentation and databases. And, "Boehm contends that Agile, as described by Highsmith and Cockburn, emphasizes several critical people-factors, such as amicability, talent, skill, and communication, at the same time noting that 49.9% of the world's software developers are below average in these areas" (p. 4). Lindvall et al.'s research was done through the medium of an online workshop which allowed the authors to collect data through an online discussion process resulting in a series of lessons learned which the authors suggest as targets for future research and validation. These lessons were not Scrum specific, but applied to agile methods overall.

Ionel's (2008) "Critical Analysys Of The Scrum Project Management Methodology" provides an analysis of the business value of the Scrum framework. While acknowledging that Scrum is used in the top companies in the field of software development and that one of its strengths is the flexibility it builds into the project lifecycle, Ionel evaluates it as having a limited usefulness with procedural systems and also having a weakness in that Scrum encourages cross-functional generalization among team members rather than specialization. The author asserts that "a programmer usually writes better code than a solution architect or a designer" (Ionel, 2008, p. 438). While extolling the benefits of the daily Scrum meeting in terms of its ability to help build human and professional relationship, the author is concerned about the stress and possible demotivation of team members who repeatedly fail to make their daily commitments to the team. Ionel sees high customer involvement as both a strength and a weakness, a strength for internal customers and a weakness from the standpoint of external customers and also points to the fact that the customer cannot change requirements under

development in a given sprint as a weakness in Scrum. Another weakness he points to is the small size of Scrum teams and the viable but difficult to implement means of arranging for multiple Scrum teams to coordinate their work for a single project.

Moe, Dingsøyr, and Dybå (2010) in "A teamwork Model for Understanding an Agile Team: A Case Study of a Scrum Project" provide a case study of a Scrum adoption and focus on work process and attitude changes required at both the individual contributor and managerial level without being specific about what those changes should be other than to acknowledge that moving from a plan-driven to a self-managing change-driven model is difficult. The teamwork model in use in the article does not seem to reflect the Scrum self-organizing model and documents problems in trust development between the ScrumMaster and the team that would prevent self-organization: "Communication improved when the ScrumMaster was absent" (Moe, et al., 2010, p. 488).

Schatz and Abdalshafi (2005) "Primavera Gets Agile: A Successful Transition to Agile Development" provides a case study of Scrum adoption and the organizational benefits in terms of quality of product and quality of life for the team. The Team was able to develop a sustainable pace of work that continued over the long term, and Team members were able to work more closely with product owners and stakeholders which allowed them to have more influence over the functional design of the product they were building. Most telling: in the 10 months of the project described by this article there was no turnover and one developer even delayed returning to his home town for more than a year. The organization benefitted because it could see the product continuously elaborated in functionality through small slice iterative delivery which encouraged

product owners to manage their scope toward the highest value items in the backlog, and the stakeholders were able to be much closer to the work during the product development. Compromises made in the adoption of Scrum resulted in a range of problems; the steps to address the problems resulted in stricter adoption of the framework as well as greater emphasis on good design and engineering practices.

Keith (2007). "Scrum Rising: Agile Development Could Save Your Studio" is a typical overview of scrum and agile myths which extols the value of Scrum in turning around difficult situations. The Chief Technical Officer for this game development studio presents a brief case study of how the organization implemented Scrum and saved the business as a result of the improved ability to meet customer needs faster.

Smith's (2010) "The Effects of Student Syndrome, Stress, and Slack on Information Systems Development Projects" discusses how stress impacts the ability of software teams to learn and maintain a healthy environment and overviews maladaptive behaviors related to stress ultimately suggesting that Scrum's "short continuous deadlines will increase stress levels. However, these iterations can also lead to increased motivation of team members. In SCRUM, the continuous short sprints can lead to stress but each sprint ends with a retrospective (a powerful technique and one that supports innovation)" (Smith, 2010, p. 492).

Systems Science as a Portion of the Foundation of Scrum

In January 2011 Jurgen Appelo published *Management 3.0: Leading Developers; Developing Agile Leaders* which positions itself as a handbook for managers and executives inside organizations adopting Scrum but outside the Scrum Team. The author characterizes himself as a former software executive who lost a great deal of money

through not understanding how to manage agile teams and whose goal is now to help other managers in software development environments avoid the same mistakes. Interestingly, five of the sixteen chapters in the book are explicitly an overview of systems theory and systems thinking principles such as emergence, complex adaptive systems, and the principles of self-organization or focus much of their content on such topics.

The three sections in this chapter on systems thinking, leadership, and agile methods discuss literature relevant to the topic of personal integrity and character recovery through collaborative work processes in complex work environments. In this chapter we have defined systems thinking and discussed what character and integrity are. We have looked at similarities between systems theory and Buddhism and different approaches to leadership. We have considered why and how the workplace is important to character formation. And, we have provided a high level description of the Scrum framework. Throughout, we have foreshadowed connections between leadership theory, systems thinking, character formation and integrity, and the Scrum framework.

In the next chapter, we will consider a specific nugget the Scrum framework offers to organizations and, even more important, to the workers in those organizations in terms of self-actualization and personal freedom. This nugget is often left by the stream bed, not being recognized for what it is. And, yet, it is every bit as valuable, economically, as the products and programs Scrum can also so effectively help deliver.

CHAPTER THREE: IMPLICATIONS OF SCRUM FRAMEWORK UTILITY IN RECOVERING CHARACTER IN THE WORKPLACE

Overview

Through the 1980's and 1990's I, like so many of my generation in the knowledge-creating workforce, saw repeated downsizings and reorganizations, which resulted in increasingly consistent organizational instability, and very rapid technological change, which resulted in consistent job role fluctuation and a steady drive for skill acquisition. Meanwhile, a national trend to decreasing organizational commitment to and investment in the individual worker seemed to emerge. As a consultant through most of my career, I frequently found myself entering organizations where staff had recently been cut or the project I was engaged on was explicitly or implicitly careening toward failure. Time, money, and human life energy were wasted in gargantuan terms. Sometimes these organizations or work groups seemed to be metaphorically groaning as a great beast with a great gash or severed limb might groan.

Then a colleague loaned me a copy of "Scrum Musings" by Ken Schwaber, a set of essays on an emerging project management framework that was then being successfully implemented in half of the organization my colleague and I both worked in, she in the Scrum half, and I in the non-Scrum half. I realize now that I had the opportunity of being in an almost lab-like setting as I worked in the non-Scrum half of the organization but was invited as an observer to meetings in the Scrum half of the organization. But, even more than this, I remember sitting down to read the stack of papers that comprised a copy of "Scrum Musings" and something on the first page leapt out at me. I had a feeling of shock and relief and profound sense of "this is it." I still

have my copy of Scrum musings but cannot point to the exact sentence that left me with that impression. For several years now, I have been reading, researching, observing, reasoning, and experimenting. This thesis is the result of that almost obsessive process. The "it" I spotted on that page was related to a means for the individual and the organization to achieve the performance improvement that seemed to be the desired outcome of the regular reorganization and right-sizing and cope with the broad skill acquisition demands whose tide has not stemmed. As things were, the old notions of organizational loyalty were being made mockery of as a result of broken or unfeasible commitment on both sides of the employer/employee compact. Simultaneously, rapid cultural change in organizations, due in part to the desire to recruit talent worldwide, interacted with the complex and frequently unknown territory that software development can be. There seemed little likelihood the individual could survive under the crush of the organizational context and, therefore, the organizations upon which all of us depend for our livelihoods were also endangered.

My personal values include the notion that the individual is of salience on her own—irrefutably—but not without some level of appropriate regard and connection to community. Scrum has been interesting to me because of this, as well. Character, as we have so often seen in social, military, and personal histories is the make-it-or-break-it quality that turns the crank and saves the day—sometimes at the cost of the individual—but that individual engages those odds. In contrast, a generation of American workers has been increasingly told to "be good soldiers" and do as you are told, no matter what; the Nuremburg defense ("I was only following orders") has become acceptable in organizations unreflective of the long term effects of such policies.

As we experience the shifts resulting from increased understanding of quantum reality and our broadening and deepening understanding of the many different ways of being human, those who seek what was once the safety of long-term employment in exchange for compliant service to a given organization follow a mirage. This thesis shows the connections between forward-focused, internationally viable leadership theories and human systems insights from systems thinking and their realization in the Scrum framework such that both the organization and the individual benefit—whether or not that organization and individual remain in an employee/employer compact. While some public conversations among agilists contain the breath of the spirit of character over ethical compromise, to my knowledge, Scrum is not held up for its value in restoring to both the worker and the organization the character for which this country was once admired. Pointing squarely at this value is the contribution of this thesis.

It is common knowledge that a fully employed worker in most organizations today spends more time in the workplace and with her colleagues then she does with family and non-work-related associates. While apparent escalation of white collar crime in the United States in the last half of the 20th century may have been shocking and disheartening (followed by the frequent and increasingly severe economic downturns in the 2010's) senior professionals in those workplaces cannot have been entirely surprised, as I was not, at the extent of the problem. As many of the sources in the previous chapter indicated, our workplaces are a significant contributor in the formation of our characters. While we may have been counseled during our education and training to take great care in choosing the organizations we will spend the greater part of our lives in, we have little control, as individuals, over the direction those organizations take in response to markets,

the personal career and income objectives of executive leadership, and the behest of shareholders. The only things we do have control over are our own words and actions. The organizations we work in have a keen interest in removing waste, in terms of lost time and money, from their production processes. For knowledge generating organizations, such as software companies and organizations reliant on internally developed, implemented, integrated, and maintained data and work process automation systems, this waste occurs most frequently in terms of inadequacy of human communication and character. I refer here, for example, to projects attempted according to timelines and budgets that were never feasible to begin with, interpersonal and inter-organizational conflict that is not effectively engaged, missed information due to human communication lapses, inaccurate status information due to intentional or unintentional inaccuracy, and skill gaps that are not surfaced for organizational support due to fear of punishment. The Scrum framework assists in progressively addressing all of these points and provides workers with a context for progressive empowerment that can result in teams adept at using this framework becoming a force to be reckoned with in the organization. How can this be true?

The Scrum framework contains implications of operationalized systems thinking principles, facilitative, chaordic, servant leadership, and, taken together with the Scrum values, provides a work process framework that supports character recovery in individuals and organizations through frequent, short commitment and confirmation cycles. These cycles require openness and courage and foster transparency and trust as well as double-loop learning. A pattern of mis-information, no matter why it is occurring, will quickly be identified by the Team or the Product Owner so that it can be addressed.

Double-loop learning is engendered in retrospectives, which allow the Team to inspect their work processes for improvement, and planning days, which allow the Team to plan in the newly adapted work processes, actualizing a change in mental models. Regular cycles of retrospectives and replanning create a context for learning from our mistakes, which Fluker, Dreher, and Koestenbaum and Block all point to as the essence of character development. Scrum uses the Team as a community-based context for learning. In the example of the team member with the skills mismatch for the new technical environment discussed in Schwaber and Beedle (2003), we see how the learning community that is a Scrum Team helps individuals identify skill gaps and provides a context for them to close those gaps while, from the business perspective, retaining the urgency of closing the gap as a result of the time box known as the Sprint. The collaborative nature of the work drives us toward wholeness. The instantiation of the framework provides a context in which we all get better together. Simply put, Scrum is desirable for many reasons, one of which is that it inculcates character-driven leadership qualities in individuals and organizations.

Work as a Driving Force in Character Formation

Character is largely formed in childhood, but organizational life continues to hone the raw material that we are when we enter our careers. As Whyte and Koller so poetically convey, character and calling are linked and good work done in service to a calling is a service and a contribution to society at large. Degrees of good character may be debated, but it is possible for an adult of otherwise good character to enter an organization and, over time, respond to the stresses there in such a way that, as Whyte puts it, they get a crafty gleam in their eye that some may call pragmatism and others may

call the glint of compromised character. Koller calls on us to find our work and use it consciously to form "the *kind of person* you wish to become" (italics mine) (Koller, 1990, p. XI). Whyte's corpse across the door and the breathless decision to succumb or flee shows us what can become of us if we do not consciously engage in our work as an exercise in character formation.

Giving up on our work and succumbing to a dysfunctional system flies in the face of what Macy says is the ethical responsibility of the individual faced with a dysfunctional human system. It also leaves us as easily controllable automatons, as Whyte would have it, in the hands of those who have not resigned their own objectives. The Scrum framework provides a means through which we can reach out for the character formation advantages of work life and restore to ourselves the joy and self-respect that originally motivated us in choosing our careers.

Facilitative, Servant Leadership as a Driver in Character-Driven Leadership

Scrum makes use of a facilitative servant leadership role, the Scrum Master, which alternates between connecting team members directly with the organization and sheltering them from the distractions in the organization depending on where they are in their Sprint cycle and the project lifecycle. Further, the Scrum Master is effectively a first among equals role that models and mentors best practice in project management processes.

Dreher writes of personal leadership, essentially character-driven leadership, and uses the *Tao Te Ching* as her reference point regarding the power of character-driven leadership. The individual in the Scrum Master role leverages an established framework to improve work processes, interpersonal communication, conflict engagement, and

decision making skill on a frequency that meets the needs of the Team but no less than once in the duration of the Sprint (usually two to four weeks). This minimum of once per Sprint opportunity occurs at the retrospective and planning meetings which provide the Team with the chance to reflect on their work processes in the immediately preceding sprint, identify specific individual and Team improvement goals, and then plan activities and process changes into the immediately upcoming Sprint. There is a feedback loop constantly in flight on a Scrum Team which provides the participants with data about how they are working together and allows them to test whether identified changes in their behaviors and mental models cause actual improvement in their work products and work life satisfaction.

One of the ways the Scrum Master serves the Team is by facilitating faith in a truly desired future, as Senge and Wheatley would describe it. Another way the Scrum Master serves the Team is in helping them take personal change seriously as opposed to resigning themselves to the dysfunction that has prevented them from keeping commitments to customers in the past. The Scrum Master leads the Team through the Sprint cycle in a manner that helps traverse the difficult territory Ackoff acknowledges systems thinking to be. Highly skilled Scrum Masters who function with the objective of broader organizational change in mind can benefit from Scharmer's and Mindell's work on facilitation and whole systems change. At a microcosmic level, the presencing process described by Scharmer is the work of the Scrum Master as she works with the chaordic nature of the self-organizing Team to facilitate continuous improvement. In so doing, the Scrum Master demonstrates Koestenbaum and Block's notion of character that we "refuse to surrender" in our pursuit of what we know to be the path of self-actualizing

freedom. This stance aligns well with both chaordic (improving our own character) and servant (improving other's existential reality) leadership.

Holonic Worldview and Systems Thinking as Levers in Building Character in Individuals and Organizations

A wise Scrum Master is aware of her Team as a human system within a human system as is described in Kira and Van Eijnatten's holonic view of individuals and organizations. The Scrum framework, a voluntary set of values, rules, roles, and practices, instantiates a container for the work which is an open system dependent on self-organization and emergence for its success. At the same time, each individual, including each individual on the Team and the Product Owner, must constantly self-organize and exercise her free will, take in information about gaps in performance, and adjust mental models that drive future performance. This openness to new information in combination with the power and willingness to make use of that information through double-loop learning builds character and integrity, as Fluker, Carter, Sennet, and Dreher understand character and integrity, in individuals and the organizations they create.

It's clear that Scrum provides the Scrum Master with a framework which helps improve her own character through modeling the behaviors implied by the values, role description, and rules. If the Scrum Master does not meet Carter's standard of integrity, namely, "(1) *discerning* what is right and wrong; (2) *acting* on what you have discerned, even at personal cost; and (3) *saying openly* that you are acting on your understanding of right and wrong" (as quoted in Fluker p. 66) and does not coach the Team and the Product Owner to do the same, many of the Scrum values will not be satisfied through that role. Through doing the "work" assigned to her through the role description

(teaching the roles and rules of Scrum and removing impediments, which requires use of the Scrum values) the Scrum Master, as a facilitative servant leader, progressively facilitates the strengthening of character and integrity of the Team, and likely, each Team member. Many Scrum practitioners make the point that mature or more highly performing Teams need less time from a Scrum Master because they begin to incorporate much that the role provides into their daily work practices.

Scrum Can Provide Benefits Even When a Scrum Master Underperforms

Interestingly, simply teaching the framework to all who will use it has related beneficial effects even if the identified, or named, Scrum Master is not willing to fulfill the role as given or exemplify the values. The framework does not deny, and therefore, essentially, gives permission to any and all participants on the Team to exemplify the values, adhere to the roles and rules, and "do Scrum." As a Scrum Coach, I have seen a Team outperform an appointed Scrum Master and simply exercise their individual and collective initiative to act with courage, openness, focus, commitment, and respect, holding the Scrum Master accountable to remove impediments beyond their direct control and escalating Scrum Master underperformance during the retrospectives at the end of their Sprints by inviting functional management as observers. Scrum is a blade sharpened on both edges so that it cuts both ways.

The existence of a Team making effective use of the Scrum framework in an organization not only results in improved work throughput but also points up character gaps in the surrounding organization through its retrospective and organizational work impedence communication processes. If the organization truly desires a higher standard of project execution, it will remove work impedences identified as such through

empirically measured work processes. If it does not remove those impedences, punishment of individuals and Teams regarded as underperforming is a demonstration of poor integrity on the part of the organization.

Collaborative Work Processes and Double-Loop Learning Build Character

Skaržauskienė's theoretical work and empirical study on the relationship between systems thinking and leadership performance shows that systems thinking improves leadership competency in the areas of conflict resolution, communication, and the ability to catalyze change. Collaborative work processes require all three of these skills; the greater the competence in these areas, the greater the ability to collaborate.

Macy's work identifying the ethical alignment between general systems theory and Buddhism pares thinking about human systems down to values around whole planet survival in a way that makes collaboration the obviously wisest dominant model for effectively engaging in conflict as conflict is described and modeled by Thomas and Kilmann. Csikszentmihalyi's work on the benefits of cooperative engagement in the development of wholeness again underscores collaborative work methods as highly beneficial to the strengthening of character. Scrum encourages collaboration across the Team and between the Team and the Product Owner.

Because the Team is cross-functional it contains a variety of work styles, backgrounds, and individual perspectives. Therefore the daily execution of the work requires that the individuals on the Team confront their own shortcomings as well as the shortcomings of the Team as a unit, or human system. As highlighted by Tsoukas in Chapter Two in the discussion of double-loop learning theory as conceived of by Argyris, individuals in highly informated work environments, as described by Zuboff, are already

socially and psychologically situated such that they are more than ordinarily presented with opportunities for decision making, self-reflection, and that "Argyris invites knowledge workers to undertake a primarily *moral*, not just technical task: to be open to criticism, to be willing to test their claims publicly against evidence, to accept that they too are partly responsible for the problems they are confronted with" (as cited in Argyris, 1991, p. 15).

Scrum builds double-loop learning into Sprint level work processes through the retrospective and planning day meetings. These meetings are structured such that competency gaps are identified by the Team with the facilitative assistance of the Scrum Master and actions and strategies to close the gaps are built into upcoming sprints. The positive or negative effects of these actions and strategies are observed and qualitative and quantitative data is collected about them throughout the Sprint. Then the Team retrospects on the effectiveness of their work process changes. Continuous double-loop learning is ongoing throughout the life of Scrum in the organization, and Scrum, which is known for surfacing problems so they can be dealt with, not fixing those problems, continues to provide fodder for the self-actualization—character building—of the Team at both the individual and the group level.

Grappling with Free Will and Existential Anxiety Ensures Character Development

Koestenbaum and Block advocate engaging the anxiety that comes about when we recognize that we each individually are imbued with free will—organizational guidelines, processes, and dysfunctional cultures notwithstanding. What we do and say is all we have control over and is an expression of our character. The regular activities of a Scrum team as described in the last chapter provide a context for working out existential

anxiety and developing stronger character, even in hostile contexts. The regular activities of the Sprint cycle include entering into relationships, which are imbued with commitment to the work and the power to heal, with our colleagues on the Team, the Scrum Master, and the Product Owner; mapping the effects of our decisions to our current reality in the context of our free will and personal freedom during the retrospective; expressing our experience of that freedom in language (most frequently, in the retrospective); taking risks and translating the anger that can come about from the anxiety of freedom into a constructive force for personal growth. As Koestenbaum and Block point out, these are character building activities.

The Sprint, during which the Team is sheltered from distractions either through their own actions or through the intervention of a Scrum Master, provides a container for working through the anxiety of making and keeping commitments, even demanding commitments, to deliver a good quality product in an environment in which it is common for surprising information to arise about either the technological or business environment after the commitment is made. The Team's ability to reach out for help and advice (see Appendix B) even though distracters are prevented from reaching in to the Team helps give them the tools to build skill and judgment.

Character building is a necessary outcome when individuals come under stress, are disappointed in themselves or others, and need to work through interpersonal challenges, preserve trust, and live to collaborate another day. While this work context may sound like something most people would like to avoid, Scrum teams and their organizations benefit tremendously from not avoiding difficult conversations, decisions, and problem solving challenges. Regularly encountering growth and learning and

grappling effectively with the related anxiety growth results in creating authentic existence, as Koestenbaum and Block express it, for the individuals involved as well as continuous improvement for organizations.

> When all is said and done, we feel good, we feel special, about people of integrity, of substance, in short of character and maturity. (Koestenbaum & Block, 2001, p. 393)

When All is Said and Done

Even in the context of regulatory bodies which abdicate their responsibility to the public, laws which are not ethical, and colleagues with the gleam of crafty pragmatism in their eye, we must be able to count on ourselves to know, or come to know, the right thing to do and do it. To, as Carter indicates (1) *discern* what is right and wrong; (2) *act* on what we have discerned, even at personal cost; and (3) *say openly* that you are acting on your understanding of right and wrong. As Whyte acknowledges, many people believe this takes more than "ordinary courage." But, the cowardly life is not worth living, and, in less time than we would like to think, the effects of cowardice impact *us*. We are all part of the same system, and this has ethical implications as Macy indicates.

Scrum is said to be easy to learn and hard to do. This is why. Scrum delivers its key value when we enter the crucible it creates and participate actively in the character testing and formation process at both the individual and the organizational level. This means we—each individual one of us—have to think about the implications of our words and actions, whether we are making a commitment to a customer that we may just not be able to live up to (but we'll find a way to smooth that over with fancy language, discounts, or blame shifting) or whether we are castigating a Team member who

suddenly discovers he does not have the skills to keep up with the demands of a new technological environment.

In the next chapter, we'll consider a few conclusions about using Scrum to recover character in the workplace as well as one possible limitation in this space because of Scrum's context in the "new science" of human systems dynamics and Griffin's reservations about Wheatley, Senge, and Sennet's analysis of the locus of responsibility and accountability in the organization versus the individual. This chapter has demonstrated the unique contribution of this thesis and led the reader through the reasoning underlying this contribution, that a key utility of Scrum, beyond delivering better products faster, is that it can facilitate character recovery in individuals and organizations.

CHAPTER FOUR: TAKING THE OPPORTUNITY THAT WISDOM IDENTIFIES

In this thesis, we have traversed the territory of systems thinking, leadership theory, and the Scrum framework with an eye to the character-building benefits of adopting Scrum. The example of John Rigas speaking to Charlie Rose on the cusp of his and his son's incarceration for defrauding their shareholders is an example of the white collar crime we have taken for granted even in our most essential institutions. We naturally cast about for some means of doing what Americans were once known for: pulling ourselves up by our own bootstraps. This metaphor is apt inasmuch as the challenges before us are just as conundrum ridden as the metaphor itself. And, yet, we must act.

It's striking to think that, beyond culturally-bound ethical standards and religious dogma, there may be a way to find our bootstraps again that many of these ethical and religious systems have struggled to point to for, literally, millennia, and that that way is inherent in the very functioning of the natural systems of which we are a part. The fact that we are all simultaneously individual and part of a whole, whether we define that whole as a team, business, municipality, country, the family of humankind, or the community of all beings, implies, as Macy's work shows and as the authors of *Presence: An Exploration of Profound Change in People, Organizations, and Society* describe, that there are certain fundamental ethical principles by which we are all bound. From these few principles, which point to concern for others and a desire to collaborate for mutual survivability, flow complexity which can only be intelligently managed at the Team level and, perhaps, only at the individual level as that individual engages in the whole of which she is a part.

Griffin (2002) concerns himself with the notion of harmonious wholes and calls assumptions underlying such thinkers as Wheatley and Senge's into question based on grounds of reasonability. Fortunately, though Scrum is aligned with the Agile Manifesto (and many adherents of the Agile Manifesto align with Wheatley and Senge) Scrum does not require eating the assumptions under their thinking whole. The Scrum values act as principles to align the Scrum Team within the framework and practices, but Scrum does not instantiate a harmonious whole. The very fact that Scrum requires Teams and organizations to look themselves in the face and empirically evaluate and adjust their work processes tends to result in a great deal of conflict on Scrum Teams, at least initially. There is plenty of scope on a Scrum Team to apply Koestenbaum and Block's applied existentialism and Thomas and Kilmann's approach to conflict.

This thesis was designed to identify the systems thinking and leadership theory underpinnings of Scrum's potential contribution to character recovery in the workplace, an outcome which holds value for both workers and organizations and to show, thereby, Scrum's inherent utility in recovering character in the workplace. The foundation for this argument, which focused on character-driven leadership and applied existentialism, as well as the human systems ethical imperatives in systems thinking as laid out in Chapter Two, has been abundantly described in Chapter Three. Scrum lays a great burden on the Scrum Master role to actualize the character-building value in the framework, but it is structured such that stakeholders beyond the Scrum Master can leverage the framework for this value even in the absence of a high-functioning Scrum Master. Modeling servant leadership, the developers of the framework describe Scrum in its most essential form and make freely it available in a wide array of translations at scrum.org.

Scrum is not “sold” as a character-recovery framework. Likely, neither industry nor government would buy it if it was. But hundreds of thousands of people internationally have adopted Scrum and remain fascinated with it even when they or their projects fail to implement it successfully. Sometimes they modify the heart out of it—not doing the planning or retrospective phases, for instance. As is often said among experienced practitioners, “Scrum is easy to learn and difficult to do.” If more organizations recognized the systems thinking and leadership underpinnings of the framework and stepped up to doing the tough work on themselves to implement it, it wouldn’t be any easier to do, it would just be more feasible. And we would *all* be freer, which is a pretty valuable thing to be.

APPENDIX A: THE PRINCIPLES AND PRACTICES IN THEORY U

This appendix provides a brief overview of the principles and practices which animate Theory U.

Co-Initiating Principle

- Attend: Listen to what life calls you to do (Scharmer, 2009, pp. 379-380).
- Connect: Listen to and dialogue with interesting players in the field (pp. 380-384).
- Co-initiate a diverse core group that inspires a common intention (pp. 384- 387).

Co-Sensing Principle

- Form a highly committed prototyping core team and clarify essential questions (pp. 387-389).
- Take deep-dive journeys to the places of most potential (pp. 389-393).
- Observe, observe, observe: Suspend your Voice of Judgement (VOJ) and connect with your sense of wonder (pp. 393-394).
- Practice deep listening and dialogue: Connect to others with your mind, heart, and will wide open (pp. 394-398).
- Create collective sensing organs that allow the system to see itself (pp. 398-399).

Co-Presencing Principle

- Letting go: Let go of your old self and "stuff" that must die (pp. 399-401).
- Letting come: Connect and surrender to the future that wants to emerge through you (pp. 401-402).
- Intentional silence: Pick a practice that helps you to connect to your source (pp. 402-407).
- Follow your journey: Do what you love, love what you do (pp. 407-410).
- Circles of Presence: Create circles in which you hold one another in the highest future intention (pp. 410-412).

Co-Creating Principle

- The Power of Intention: Connect to the future that stays in need of you—crystallize your vision and intention (pp. 412-415).
- Form core groups: Five people can change the world (pp. 415-416).
- Prototype strategic microcosms as a landing strip for the emerging future (pp. 416-421).
- Integrate head, heart, and hand: Seek it with your hands; don't think about it, feel it (pp. 421-423).
- Iterate, iterate iterate: create, adapt, and always be in dialogue with the universe (pp. 424-425).

Co-Evolving Principle

- Co-evolve innovation ecosystems that allow people to see and act from an emerging whole (pp. 426-430).
- Create innovation infrastructures by shaping safe places and rhythms for peer coaching (supported through social technology) (pp. 430-434).
- Social Presencing Theater: Evolve collective awareness through Field 4 media productions (pp. 434-436).

Root Principles Which Contain Three Groundings

- Intentional grounding (pp. 436-438).
- Relational grounding (pp. 438-439).
- Authentic grounding (pp. 439-441).

APPENDIX B: THE SCRUM RULES

This appendix lists the Scrum rules as shown in "Appendix A: Rules" in Schwaber's *Agile Project Management with Scrum* (2004). In this appendix you will notice the terms "chicken" and "pig," which were not mentioned in the body of the thesis. These terms are part of Scrum lore and describe two classes of participants. As described by Schwaber with regard to the various roles on a project:

> The people who fill these roles are those who have committed to the project. Others might be interested in the project, but they aren't on the hook. Scrum makes a clear distinction between these two groups and ensures that those who are responsible for the project have the authority to do what is necessary for its success and that those who aren't responsible can't interfere unnecesarily. Throughout this book, I refer to these people as "pigs" and "chickens," respectively. These names come from an old joke: A chicken and a pig are walking down the road. The chicken says to the pig, "Do you want to open a restaurant with me?" The pig considers the question and replies, "Yes, I'd like that. What do you want to call the restaurant?" The chicken replies, "Ham and Eggs!" The pig stops, pauses, and replies, "On second thought, I don't think I want to open a restaurant with you. I'd be committed, but you'd only be involved." This distinction is important in Scrum and is relevant to Scrum's insistence upon total visibility. It should always be clear who is on the hook and who is just a kibitzer. (Schwaber, 2004, p.7)

Sprint Planning Meeting

- The attendees are the ScrumMaster, the Product Owner, and the Team. Additional parties can be invited by any of these people to provide additional business domain or technology domain information and advice, but they are dismissed after this information is provided. There are no chickens as observers.
- The Product Owner must prepare the Product Backlog prior to the meeting. In the absence of either the Product Owner or the Product Backlog, the ScrumMaster is

required to construct an adequate Product Backlog prior to the meeting and to stand in for the Product Owner.

- The goal of the first segment, or first 4 hours, is for the Team to select those Product Backlog items that it believes it can commit to turning into an increment of potentially shippable product functionality. The Team will demonstrate this functionality to the Product Owner and stakeholders at the Sprint review meeting at the end of the Sprint.
- The Team can make suggestions, but the decision of what Product Backlog can constitute the Sprint is the responsibility of the Product Owner.The Team is responsible for determining how much of the Product Backlog that the Product Owner wants worked on the Team will attempt to do during the Sprint.
- The Team is responsible for determining how much of the Product Backlog that the Product Owner wants worked on the Team will attempt to do during the Sprint.
- Time-boxing the first segment to 4 hours means that this is all of the time that is available for analyzing the Product Backlog. Further analysis must be performed during the Sprint. Large-grained, high-priority Product Backlog with imprecise estimates might not be thoroughly understood during this part of the Sprint planning meeting and might result in the Team not being able to complete all of the Product Backlog that it selects.
- The second segment of the Sprint Planning meeting occurs immediately after the first segment and is also time-boxed to 4 hours.

- The Product Owner must be available to the Team during the second segment to answer questions that the Team might have about the Product Backlog.
- It is up to the Team, acting solely on its own and without any direction from outside the Team, to figure out during the second segment how it will turn the selected Product Backlog into an increment of potentially shippable product functionality. No one else is allowed to do anything but observe or answer questions seeking further information.
- The output of the second segment of the Sprint planning meeting is a list, called the Sprint Backlog, of tasks, task estimates, and assignments that will start the Team on the work of developing the functionality. The task list might not be complete, but it must be complete enough to reflect mutual commitment on the part of all Team members and to carry them through the first part of the Sprint, while the Team devises more tasks in the Sprint Backlog.

Daily Scrum Meeting

- The Daily Scrum meeting is time-boxed to 15 minutes regardless of the number of Team members.
- Hold the Daily Scrum in the same place at the same time every work day. The Daily Scrum is best held first thing in the day so that the first thing Team members do on arriving at work is think of what they did the day before and what they plan to do today.

- All Team members are required to attend. If for some reason a Team member can't attend in person, the absent member must either attend by telephone or by having another Team member report on the absent member's status.
- Team members must be prompt. The ScrumMaster starts the meeting at the appointed time, regardless of who is present. Any members who are late pay $1 to the ScrumMaster immediately.
- The ScrumMaster begins the meeting by starting with the person immediately to his or her left and proceeding counterclockwise around the room until everyone has reported.
- Each Team member should respond to three questions only:
    - What have you done since the last Daily Scrum regarding this project?
    - What will you do between now and the next Daily Scrum meeting regarding this project?
    - What impedes you from performing your work as effectively as possible
- Team members should not digress beyond answering these three questions into issues, designs, discussion of problems, or gossip. The ScrumMaster is responsible for moving the reporting along briskly, from person to person.
- During the Daily Scrum, only one person talks at a time. That person is the one who is reporting his or her status. Everyone else listens. There are no side conversations.

- When a Team member reports something that is of interest to other Team members or needs the assistance of other Team members, any Team member can immediately arrange for all interested parties to get together after the Daily Scrum to set up a meeting.
- Chickens are not allowed to talk, make observations, make faces, or otherwise make their presence in the Daily Scrum meeting obtrusive.
- Chickens stand on the periphery of the Team so as not to interfere with the meeting.
- If too many chickens attend the meeting, the ScrumMaster can limit attendance so that the meeting can remain orderly and focused.
- Chickens are not allowed to talk with Team members after the meeting for clarification or to provide advice or instructions.
- Pigs or chickens who cannot or will not conform to the above rules can be excluded from the meeting (chickens) or removed from the Team (pigs).

What is a Sprint?

The Sprint is time-boxed to 30 consecutive calendar days. Aside from other factors, this is the amount of time required for a Team to build something of significant interest to the Product Owner and stakeholders and bring it to a state where it is potentially shippable. This is also the maximum time that can be allocated without the Team doing so much work that it requires artifacts and documentation to support its thought processes. It is also the maximum time that most stakeholders will wait without

losing interest in the Team's progress and without losing their belief that the Team is doing something meaningful for them.

Sprint Rules

- The Team can seek outside advice, help, information, and support during the Sprint.
- No one can provide advice, instructions, commentary, or direction to the Team during the Sprint. The Team is utterly self-managing.
- The Team commits to Product Backlog during the Sprint planning meeting. No one is allowed to change this Product Backlog during the Sprint. The Product Backlog is frozen until the end of the Sprint.
- If the Sprint proves to be not viable, the ScrumMaster can abnormally terminate the Sprint and initiate a new Sprint planning meeting to initiate the next Sprint. The ScrumMaster can make this change of his or her own accord or as requested by the Team or the Product Owner.
- The Sprint can prove to be not viable if the technology proves unworkable, if the business conditions change so that the Sprint will not be of value to the business, or if the Team is interfered with during the Sprint by anyone outside the Team.
- If the Team feels itself unable to complete all of the committed Product Backlog during the Sprint, it can consult with the Product Owner on which items to remove from the current Sprint. If so many items require removal that the Sprint

has lost its value and meaning, the ScrumMaster can abnormally terminate the Sprint, as previously stated.

- If the Team determines that it can address more Product Backlog during the Sprint than it selected during the Sprint planning meeting, it can consult with the Product Owner on which additional Product Backlog items can be added to the Sprint.
- The Team members have two administrative responsibilities during the Sprint: they are to attend the Daily Scrum meeting, and they are to keep the Sprint Backlog up-to-date and available in a public folder on a public server, visible to all. New tasks must be added to the Sprint Backlog as they are conceived, and the running, day-to-day estimated hours remaining for each task must be kept up-to-date.

Sprint Review Meeting

- The Sprint review meeting is time-boxed to 4 hours.
- The Team should not spend more than 1 hour preparing for the Sprint review.
- The purpose of the Sprint review is for the Team to present to the Product Owner and stakeholders functionality that is done. Although the meaning of “done” can vary from organization to organization, it usually means that the functionality is completely engineered and could be potentially shipped or implemented. If “done” has another meaning, make sure that the Product Owner and stakeholders understand it.

- Functionality that isn't "done" cannot be presented.
- Artifacts that aren't functionality cannot be presented except when used in support of understanding the demonstrated functionality. Artifacts cannot be shown as work products, and their use must be minimized to avoid confusing stakeholders or requiring them to understand how systems development works.
- Functionality should be presented on the Team member workstations and executed from the server closest to production—usually a quality assurance (QA) environment server.
- The Sprint review starts with a Team member presenting the Sprint goal, the Product Backlog committed to, and the Product Backlog completed. Different Team members can then discuss what went well and what didn't go well in the Sprint.
- The majority of the Sprint review is spent with Team members presenting functionality, answering stakeholder questions regarding the presentation, and noting changes that are desired.
- At the end of the presentations, the stakeholders are polled, one by one, to get their impressions, any desired changes, and the priority of these changes.
- The Product Owner discusses with the stakeholders and the Team potential rearrangement of the Product Backlog based on the feedback.
- Stakeholders are free to voice any comments, observations, or criticisms regarding the increment of potentially shippable product functionality between presentations.

- Stakeholders can identify functionality that wasn't delivered or wasn't delivered as expected and request that such functionality be placed in the Product Backlog for prioritization.
- Stakeholders can identify any new functionality that occurs to them as they view the presentation and request that the functionality be added to the Product Backlog for prioritization.
- The ScrumMaster should attempt to determine the number of people who expect to attend the Sprint review meeting and set up the meeting to accommodate them.

Sprint Retrospective Meeting

- At the end of the Sprint review, the ScrumMaster announces the place and date of the next Sprint review to the Product Owner and all stakeholders.
- The Sprint retrospective meeting is time-boxed to 3 hours.
- It is attended only by the Team, the ScrumMaster, and the Product Owner. The Product Owner is optional.
- Start the meeting by having all Team members answer two questions:
- What went well during the last Sprint?
- What could be improved in the next Sprint?
- The ScrumMaster writes down the Team's answers in summary form.

- The Team prioritizes in which order it wants to talk about the potential improvements.
- The ScrumMaster is not at this meeting to provide answers, but to facilitate the Team's search for better ways for the Scrum process to work for it.
- Actionable items that can be added to the next Sprint should be devised as high-priority nonfunctional Product Backlog. Retrospectives that don't result in change are sterile and frustrating.

APPENDIX C: FACILITATIVE LEADERSHIP COMPARED WITH DIRECTIVE LEADERSHIP

This appendix provides a table taken from pages 54 and 55 of Bens (2006) which compares and contrasts the facilitative and directive leadership styles. This table aligns nicely with points made by Reilly (1996).

Leadership Styles in Action		
Situation	Directive Approach	Facilitative Approach
Setting objectives for a new activity	Leader sets goals and communicates them.	Leader shares nonnnegotiables and other parameters, then facilitates an objective-setting discussion.
Hiring a new team member	Leader sets criteria, interviews, and hires.	Leader helps members identify hiring criteria, then teaches interviewing skills so members can fill the vancancy.
Setting a budget	Leader sets the budget and communicates it.	Leader shares core budgeting skills, then helps group identify parameters they will use to set a budget.
Creating a work schedule	Leader creates a work schedule.	Leader helps members identify work scheduling guidelines, then facilitates schedule development discussions.
Choosing a new supplier	Leader chooses new supplier.	Leader helps members identify key criteria for selecting a new supplier, then facilitates selection discussion.

Leadership Styles in Action		
Situation	Directive Approach	Facilitative Approach
Operational problem	Leader studies the situation to find solutions.	Leader asks members to study the situation, then facilitates a structured problem-solving discussion at which members identify solutions.
Purchasing new equipment	Leader orders new equipment.	Leader helps members set up systems to assess equipment needs, then facilitates a discussion to review needs and select equipment.
Monitoring results	Leader assesses data and checks on subordinates.	Leader helps members set outcome measures and create self-monitoring mechanisms.
Staff under-performance	Leader conducts a performance review.	Leader coaches employee to overcome performance issues.
Infighting	Leader ignores it or talks to each individual.	Leader brings the two parties together to hear each other and look for solutions to end the dispute.
Poor execution	Leader identifies root causes and meets with individuals to discuss solutions.	Leader structures a debriefing session to identify what went wrong, then facilitates problem-solving discussions to find solutions for key mistakes.

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