WILLIAM JAMES AND A THEORY OF THINKING

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ABSTRACT

This paper provides a pragmatic example of a theory. It is the one provided by James on tough and tender thinking. The need for such a theory for complex social problems is discussed, two applications outlined and the theory summarized.

THE NEED: TROUBLED TIMES CALL FOR EXTRAORDINARY MINDS

Troubled times cry out for extraordinary minds. They hunger for extraordinary individuals that can think boldly and act decisively. For make no mistake about it; these are extremely troubled times. Our intellectual and moral compasses are broken. They are beyond patching. We are adrift. We must think and act anew. The intellectual and moral foundations, the basic premises and assumptions about thinking, upon which all of our organizations and institutions are based, have crumbled. They are in need of reexamination and rebuilding. We need a new philosophy of thinking that will not only guide business and government, but our personal lives as well.

Thinking and ethics are intertwined. The pursuit of rampant and uncontrolled greed aided and abetted by cleverness and ruthless ambition is not a viable moral and intellectual base that can sustain any society. Indeed, they are antithetical to the very concept of society. Society requires not only enormous amounts of trust and integrity in order to function, but it requires them merely to exist in the first place. Erode trust and integrity and one erodes the very idea of society itself. These sentiments are neither abstract nor purely academic.

The sheer numbers and the scope of recent corporate scandals and major crises (Ford/Firestone, 9/11, Enron/Andersen, FBI, CIA, The Catholic Church, NASA, Martha Stewart, Worldcom, etc.) demonstrate that all organizations and institutions are either suspect or under attack. Neither business nor government can be trusted to act responsibly, to ensure the collective good and to protect us from danger. The kind of thinking that has gotten us into this problem will not get us out of them. More of the same only makes things worse, not better. The starting point is to re-assess our outmoded assumptions about thinking and problem solving.

Outmoded Assumptions

The 19th and the 20th Centuries developed a view of problems that influenced profoundly the nature of education and work. This view is best stated in terms of the key assumptions upon which it was based:

1) In order for something to be or to count as a problem, it had to be stated (defined) unambiguously and precisely; unless one could state or define a problem in this manner, then one did not know what the problem was, and hence, one would not know what a solution to it was, if one existed; in other words, it had to be stated in "grounded, tough-minded" terms;

2) The best (superior) language for stating problems was mathematics; the ideal model in this regard was Euclid's geometry where one started with intuitively obvious or self-evident ideas (axioms and postulates) such as the definitions of points, lines, triangles, etc., and from these one derived rigorously (deductively) a potentially infinite set of interesting and important conclusions known as theorems (this point still holds even with the invention of non-Euclidean geometries for even they can be stated axiomatically); in the more extreme versions of this philosophy of problems, unless something could be expressed in the rigorous and exacting language of mathematics, then it was not even worthy of the term "problem;"

3) All complex problems were in principle decomposable into a finite set of separate and simpler problems; the "sum" (synthesis) of the solutions to the separate and simpler problems was then the solution to the complex problem; in fact, for something to even be considered as a problem in the first place, then it had to be decomposable into its simpler problems or "atoms;"

4) Different disciplines owned different atoms; different disciplines owned different types of problems; as a corollary, the different disciplines were clearly

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CONTRIBUTION

A good contribution to knowledge requires insight as well as rigor, moreover rigor means well founded and well thought out. In these senses this paper can be considered to make a contribution to knowledge aligned with James' pragmatism. The paper provides insight into the need for an improved way of thinking and what this might be. It is aimed at academics and practitioners who presently only rely on traditional scientific thinking to open their minds to tender or perspectival thinking when dealing with complex social problems like the design of large information systems.

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separable from one another; finally, there was a strict hierarchy between disciplines; some disciplines were better than others; "better" meant that one discipline could state its problems more rigorously (e.g., in terms of mathematics) than others; conversely, the more that a discipline could state its problems independently of context, the better it was as well.

5) Education consisted largely of solving a set of pre-defined exercises (e.g., "x + 6 = 11; Find x"); by definition, exercises have one formulation (the one that is given to students in textbooks), and as a result, exercises have only one right answer;

6) A problem once solved remained solved forever in the same way that a set of facts once established presumably was established forever; for instance, the boiling point of water is a constant, not a variable.

Counter Assumptions

In contrast, William James' theory of thinking gives rise to a completely different and counter set of assumptions (James 1907):

1) The "nature" of most complex problems is not clear or well known in the very beginning; all problems that are worthy of the name, first present themselves in highly ambiguous terms; in other words, problems are not separable from ambiguity; if anything, problems are extracted from ambiguity; indeed, for

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something to be a problem it has to be infused with ambiguity;

2) There is no "one best or superior language" in which to state a problem; the notion of a "best language" already assumes that one knows that the problem is, or at the very least, a great deal about it; certainly, most of our critical problems cannot be stated unambiguously, let alone in the restricted language of mathematics;

3) In principle, complex problems are not decomposable into a finite set of separate and simpler problems; to the contrary, by definition complex problems must be treated as "wholes;" complex problems possess properties as a whole that none of the "parts" do;

4) Different disciplines do not necessarily "own" different parts of complex problems because the disciplines themselves are largely artifacts; if complex problems only exist as "wholes," then the knowledge that is required for formulating and solving problems must be holistic as well; the different disciplines are not clearly separable from one another; there is not a strict hierarchy between disciplines such that some are better than others; mathematical rigor is not necessarily the most desirable property in formulating or in solving problems;

5) Education first and foremost consists of critical thinking; a critical part of critical thinking is problem formulation; that is, one needs to learn how to formulate problems from multiple perspectives; by definition, complex problems do not have a single formulation;

6) Problems do not remain solved; indeed, in the process of working on a problem, the nature of the problem, let alone the solution, changes substantially.

WILLIAM JAMES

William James, arguably America's greatest philosopher and one of the founders of pragmatism, was an extraordinary thinker. He was the quintessential thinker for troubled times. As he formulated it and applied it to the issues of his times, the late 1800's and early 1900's, pragmatism and James are just as relevant, if not more so, for our times.

Ethical thinking and actions are not only at the core of pragmatism, but it is the very core, if not the heart, of pragmatism. Similarly, ethics is at the core of management action, certainly as James conceived of ethics and pragmatism. As a result, the principles of pragmatism are especially relevant to the corporate crises and the complex problems that are a fundamental characteristic of our age.

A most fundamental principle of pragmatism is that something is "true" – even worthy of inquiry in the first place - only to the extent that it makes an ethical difference in the actions, i.e., the general conduct, of our lives. Thus, for pragmatism, **ethical** accounting and **ethical** finance are not oxymorons, rather there is no other form of accounting or finance actions. To the extent that our accounting systems and procedures are portrayed as independent of ethics, or non-ethical (e.g., Andersen), we have duped investors and other key stakeholders (e.g., Enron). For James the idea of non ethical accounting and finance actions is not merely erroneous and morally dubious, but more fundamental still, it cannot exist! While one can certainly debate what James means by "ethics," his point is that there will always been an ethical foundation or grounding to these, so preferably it should be made explicit. It is an abomination and a perversion of truth to say that we can audit a system, i.e., know what the "true" state of its resources are without ethics.

James's theory of "truth" is a theory of problem solving for complex problems. It is a theory of critical thinking and a theory of how to formulate complex problems from multiple perspectives. For James, a single view or perspective of any problem is automatically wrong. It can not hope to capture all of the subtleties and the complexities that are characteristic of "real" problems. An ethical thought or action means one that has allowed for multiple perspectives. This ties James' idea with those of needing a new set of assumptions. Taking a multiple perspective approach to thinking provides an ethical basis, includes multiple perspectives and allows in the possibility of creative solutions.

James presents an approach to encouraging multi perspective thinking in his first lecture on pragmatism by noting two distinct types of minds, or styles of thinking, that have appeared repeatedly throughout the course of human history: "tough minded" versus "tender minded." While these two types certainly exist, and are still relevant today, modern psychologists have discovered additional dimensions that need to be added to James' system if we are to capture more completely the full range of differences in human thinking. For want of better terms, I call these two additional types "earthbound" or "grounded" versus "airy" or "floating in the clouds." The terms "bounded" versus "unbounded" apply equally. Thus, if we take the distinction "tough" versus "tender" and add the two additional distinctions "earthbound" versus "airy," then we get the possibility of four, not two, different types of thinkers (see Figure 1.1).

APPLICATIONS

The types of thinking generated by James' 'tough minded – tender minded' distinction is reflected in the following applications.

The jobless recovery is one of the strongest signals to date that the nature of work is undergoing a major transformation,

indeed, what some would call a major revolution. It is as profound and as radical a transformation as any that has occurred in human history. It promises to alter every aspect of our lives.

The nature of this transformation is as follows: Anything that can be defined precisely and unambiguously, i.e., in "grounded, tough-minded" terms, can in principle be outsourced, or exported, to another country where it can be performed cheaper, and in many cases, faster than it can by U.S. workers. The truly radical nature of this transformation is that it no longer applies merely to manual or to physical work, but to higher-level mental work as well. For instance, it applies to the development and the manufacturing of computer software. It applies as well to thousands of other traditionally high skilled jobs such as accounting, financial analysis, engineering design, etc. In short, anything that is well-structured, and relatively independent of context and culture, i.e., once again, "grounded, tough-minded" thinking, can be done by someone that is not a member of the society in which the problem arose initially.

The consequences of this revolution are literally mind-boggling. For one, it threatens to demolish the monopoly and the stranglehold that the traditional academic disciplines have
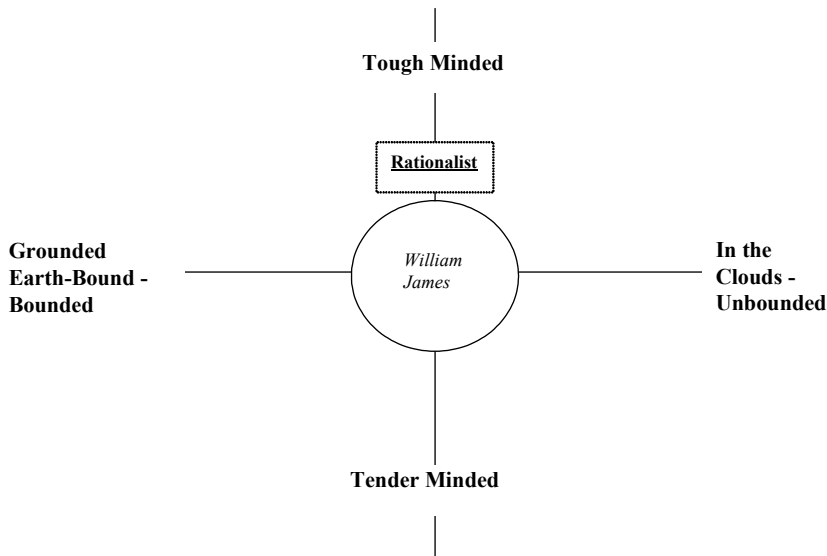

Figure 1

had over knowledge for hundreds of years. The organization of the modern university into separate and autonomous disciplines is as clear cut an example of "grounded, tough-minded" thinking as one is ever likely to find. The boldest prediction one can make is that the modern university will cease to exist, at least in its present form.

For another, this "revolution" also threatens to demolish the monopoly of the traditional disciplines over work. It promises to alter radically traditional corporate functions such as accounting, finance, marketing, law, manufacturing, etc. In other words, it promises to alter the traditional, "grounded, tough-minded" design that has permeated all organizations. Likewise, it will not be alleviated by integrating and even synthesizing diverse disciplines into new forms such as the creation of hybrid disciplines such as bio-engineering (interdisciplinary).

The traditional academic disciplines, professions, and corporate functions are obsolete. If one can no longer expect to work in a single job for a single organization for one's entire life, then one can no longer expect to practice a single discipline, profession, or corporate function for one's entire life. Our thinking about thinking has to change dramatically because the needs of work have changed, and vice versa.

To grasp the truly radical nature of this revolution, it is necessary to understand that multi and interdisciplinary approaches to thinking will not solve the fundamental problem we are facing. The fundamental problem will not be alleviated merely be combining or bringing more disciplines to bear on major issues (multidisciplinary). Likewise, it will not be alleviated by integrating and even synthesizing diverse disciplines into new forms (interdisciplinary). Instead, it will only be alleviated when we finally realize, and accept, that virtually all of our major problems have significant aspects that lie beyond any of the currently known disciplines, professions, and functions. Furthermore, it will only be alleviated when we finally accept that the solutions to our major problems lie beyond any disciplines, professions, or functions that we can even begin to imagine. As a result, we need to develop both the concepts and the understanding of what it is to know without disciplines, professions, and traditional job descriptions.

The only reliable predictions that one can make regarding the types of jobs that will remain in the U.S. are those that will satisfy two stringent conditions: One, those that require an in-depth, working knowledge of U.S. culture; and, two, those that necessitate the exercise of high-level, critical thinking and creative judgment. In short, we need to learn desperately how to apply and to integrate all of the four types of thinking (see Figure 1.1) to any and all problems. Anything else is doomed to vanish—forever!

The stories are all too familiar and common: the permanent loss of hundreds of thousands of high paying white collar jobs to Asian and Third World Countries; the greatly increased time that it takes to land a similar job at an equivalent rate of pay, if such jobs even exist at all; the substantial lowering of expectations, the fact that often the only jobs available are those considerably below one's level of education, job experience, and certainly, one's previous income; the fact that millions have completely given up all hope of finding any job and have therefore dropped out of the labor force altogether.

The moral of the preceding story is not that individual job seekers are bad or are failures. The moral is that 19th and the 20th Century's notion of knowledge and education is not adequate for the problems and the jobs of the 21st Century. The roots of our problem are obsolete and outmoded assumptions about of thinking, knowledge, education, and work itself.

A FURTHER APPLICATION

William James' types of thinking can also be demonstrated using a recent case that involved the American Automobile Association (AAA).

- A woman who was murdered in 1999 after her car broke down and she accepted help from a stranger was failed by her Auto Club, an attorney for the victim's family said during opening statements Tuesday.

The family of Melissa Gosule is suing AAA for wrongful death and negligence, claiming that if the auto association had assisted Gosule properly she would

not have been raped and stabbed to death.

"This is about a nightmare that should have been prevented," said Michael Paris, the family's attorney. "All because the defendants failed to do what they were supposed to do."

But an attorney for AAA of Southern New England said Gosule, whose car broke down on Cape Cod, was in a busy recreation area on a summer evening, near a major highway, a restaurant, and a gas station.

"Melissa was not left in an unsafe location. She was not left in an unsafe situation," said Robert Gainor.

On July 11, 1999, Gosule returned from a bike ride in a park to find her car would not start. Michael Gentile, who was later convicted for her murder, let the 27-year-old elementary school teacher use his cell phone.

When the AAA tow truck driver arrived, he told Gosule he was busy and would not be able to take her or her car back to Boston for another three or four hours. Gentile eventually offered to drive Gosule home to her parents' house in Brockton.

Her body was later found in a shallow grave.

The defense said that, according to witnesses, Gosule asked others for a ride back to Boston before the tow truck operator arrived and even described Gentile to another person in the recreation area as "a guy being nice" to her.

"She was already relying on other people, other strangers, for a ride back," said Bobby R. Burchfield, attorney for the National AAA.

The lawsuit names the National AAA; its local affiliates, AAA Southern New England; and the tow truck driver. It asks for unspecified damages. The case is

being watched by the legal community to see if a jury will hold AAA liable (Associated Press 2003).

"Tough minded, earthbound" characters frame the AAA tragedy primarily, if not often, solely, in legal terms. They are also inclined to protect the interests of AAA. They want AAA to say as little as possible so as to limit the organization's legal liabilities. In slightly different words, "lawyer types" often respond in a language that is as cold as the initial tragedy itself. (To be sure, "lawyer types" on the plaintiff's side can also use the same dry, cold language and mode of thinking to protect the injured parties. Thus, lawyering is not confined merely to protecting an organization's interests.)

Juxtaposed to this is a completely opposite way of thinking, what I call the "tender minded, in the clouds type." This style is completely different from that of the first.

This was brought out forcefully in a class on critical thinking that I conducted recently. The students were exposed to all four characters shown in Figure 1.1. They were then instructed to go out into the "so-called real world" and to find a problem that they could analyze from all four perspectives. Not only were they to analyze the problem from all four perspectives, but even more basic, they were to define the problem from each perspective. This was done in order to help ensure that they knew how to "speak" each of the four different "languages," and hopefully, by doing so, to produce richer definitions of the problem.

One of the prime characteristics of complex problems is that they cannot—indeed, must not—be defined solely from the single perspective of any of the four types. Each of the four types naturally emphasizes certain features of complex problems and situations, but neglects others. It is precisely the features that are neglected that most often come back to haunt us mercilessly.

One of the students in the class chose the AAA tragedy for the exercise. In the discussion that followed afterwards, which is the whole point of the exercise, an interesting approach emerged that was very different from the legal perspective. To be sure, the group

had gotten the legal approach down pat because this position is completely obvious in today's world, especially in a society as litigious as ours. In discussing the problem, I suggested why didn't AAA have a van or cab service that they could offer to a stranded motorist such that if he or she felt unsafe in any way whatsoever that they could be transported to a more secure location? At this point, one of the students in the class literally jumped out of her seat. Her eyes flashed. She blurted out, "Why didn't AAA think of using their AAA-affiliated hotels, which literally span the entire country, as safe havens where motorists could be taken?"

This suggestion opened the discussion even further. The whole point was that AAA already had an infrastructure in place such that if it were conceived of in slightly different terms then it was a natural "safe haven infrastructure" that spanned the entire U.S. In other words, it only takes a slight leap of imagination to convert a system that was designed for one purpose, i.e., to provide discounts to members that were traveling across the country so that they could secure clean and economical lodgings, to serve another purpose, i.e., a nationwide safety system. However, this line of thinking only raises the critical question, "Why is it that most people and most organizations aren't capable of making this leap?"

Most organizations certainly have legal counsel. This is built into their basic structure. The job of legal counsel is to protect the legal liabilities of an organization. On the other hand, most organizations also have public relations and human resource specialists, security departments, and so on. Why didn't any of them think about using their affiliated hotel system for another purpose? To be sure, this might have been considered impossible or even ridiculous before the tragedy, but it certainly cannot be considered ridiculous after the tragedy. If one is to learn from such tragedies in order to help ensure that they will not happen again, then is not AAA and all other organizations obligated to engage in the kind of thinking that will help mitigate future crises?

CONCLUDING REMARKS

This paper has argued that we need an improved form of thinking. It needs to be explicitly ethical and capable of dealing creatively with wicked problems. This new way of thinking also needs to put aside the traditional assumptions about thinking and problem solving and draw on a more realistic set of underlying assumptions. A multiple perspective approach to thinking was suggested, inspired by the writing of William James. This involves dividing types of thinking into 'tough minded' vs 'tender minded' and from 'bounded' to 'unbounded'. To demonstrate how these might be expected to produce creative solutions, some cases were discussed. It was shown that rather than the problem dissolving into the all too common legal battle between the interlocutors, creative solutions emerged.

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