Incompetency training: Theory, practice, and remedies

Author: Arch Woodside

Post-print version of an article published in Journal of Business Research 65(3): 279-293. doi:10.1016/j.jbusres.2011.10.025.

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

INCOMPETENCY TRAINING:

Theory, Practice, and Remedies

Arch G. Woodside, Boston College

Submission: October 2011

Revision: October 2011

Acceptance: October 2011

The author acknowledges the helpful comments and suggestions by Rouxelle, De Villiers, Auckland University of Technology, Roger Marshall, Auckland University of Technology, and Carol M. Megehee, Coastal Carolina University, to earlier drafts of this editorial. All perspectives and viewpoints in this editorial represent mine alone. Send correspondence to Arch G. Woodside, Boston College, Carroll School of Management, Department of Marketing, Fulton Hall 450, 140 Commonwealth Avenue, Chestnut Hill, MA 02467; telephone/fax: 617 552 3069/6677; arch.woodside@bc.edu.

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

ABSTRACT

"Incompetency training" includes formal and informal instruction that consciously (purposively) or unconsciously imparts knowledge, attitudes, beliefs, and behavior (including procedures) that are useless, inaccurate, misleading, and/or will lower performance outcomes of the trainee versus no training or training using alternative training methods. "Imparts" in the definition refers to exposing a trainee to incompetency training; such exposure is not a guarantee that the training increases the trainee's incompetence. This editorial is to stimulate research interest among scholars in incompetency training theory, evidence, and the efficacy of remedies. The editorial offers an early workbench model of incompetency training theory. The theory includes the proposition that executives and associates in firms, academia, and government organizations consciously as well as unknowingly offer incompetency training in many contexts. Increasing trainees' vigilance and ability to recognize exposure to incompetency-training may help trainees to decrease the effectiveness (impact) of exposures to incompetency training—advancing incompetency training theory and knowledge of incompetency training practice may be necessary conditions for remedying negative outcomes that follow from trainees receiving such training. Available evidence supports the first proposition and, to a limited extent, the second proposition.

Keywords: competitor-oriented; contexts; deregulation; experience curve; evidence; incompetency; AIDS; HIV; key success factor; key success factors; portfolio planning; profit-oriented; heuristics; training

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

INCOMPETENCY TRAINING:

Theory, Practice, and Remedies

PRELUDE

> All in all, we carried out about 700 inspections at different 500 sites and, in no case, did we find any weapons of mass destruction. (Hans Blix, 2010—UN Chief Weapons Inspector between 1999 and 2003 reporting on outcomes of inspections before the March 2003 invasion of Iraq)
>
> Intelligence gathered by this and other governments leaves no doubt that the Iraq regime continues to possess and conceal some of the most lethal weapons ever devised. (President George W. Bush, Address to the Nation on March 17, 2003—two days before the U.S. led invasion into Iraq)

Repeating a falsehood over and over again is one tool that is sometimes effective in incompetency training in some contexts. "See, in my line of work you got to keep repeating things over and over and over again for the truth to sink in, to kind of catapult the propaganda" (George W. Bush on 5/24/05).

INTRODUCTION

The objectives of this editorial are to suggest the need for developing accurate and useful incompetency training theory; to propose a few initial propositions for theory development and empirically testing of incompetency training; to offer commentaries on studies in the literature relevant to incompetency training and the tools useful for causing

effective incompetency training; and to advocate theory development and testing of remedies to eliminate incompetency training when possible and mitigate the effectiveness of incompetency training. Given that extensive literature supports the conclusion that incompetency training is pervasive and frequently effective, the study of competency training alone is insufficient in preventing effective incompetency training.

Tenets of incompetency-training theory include the perspective that trainees need vigilance and meta-thinking (thinking-about-thinking) training to develop accurate knowledge and ability to recognize their exposure to incompetency training within specific contexts. Competency training needs to include focusing on acquiring effective antidotes to thwart highly effective (conscious and nonconscious) incompetency training.

Following this introduction, section two offers a definition of incompetency training. Section three describes relevant theory and reviews literature on the efficacy of incompetency training. Section four reviews a few milestones and salad days in incompetency training. Section five asks what actions are necessary for overcoming incompetency training. Section six concludes with a call for papers that advance theory and evidence on the efficacy and remedies of incompetency training.

DEFINING INCOMPETENCY TRAINING

"Incompetency training" includes formal and informal instruction that consciously (purposively by the trainer) or unconsciously (unknowingly by the trainer) imparts knowledge, attitudes, beliefs, and behavior (including behavioral protocols) that

are useless, inaccurate, misleading, and lower performance outcomes of the trainee versus no training or training using alternative training methods.

The definition implies subcategories of incompetency training are identifiable. "Passive incompetency training" includes instruction that has no measurable impact on improving the knowledge and capabilities of many trainees. The Doonesbury "trapped in a paper bag" cartoon in Figure 1 illustrates passive incompetency training. True experiments with test and control groups or the use of quasi-experiments (Shadish, Cook, and Campbell, 2001) are necessary to test for the zero-impact hypothesis that is central to passive incompetency-training theory. The failure to find positive impact in higher education on knowledge and abilities of many students justifies the assumption that such experiments are necessary steps in measuring the extent of passive incompetency training.

Figure 1 here.

Given that one characteristic of passive incompetency training is that such training is a "waste of time," such training is not passive because it consumes time available for effective competency training. Thus, describing training that results in inconsequential outcomes can represent substantial opportunity costs.

"Active incompetency training" includes instruction that the trainer consciously or unknowingly decrease useful knowledge and capabilities of trainees. President George W. Bush's speeches on evidence of weapons of mass destruction (WMD) in Iraq to justify the U.S. led March 2003 invasion are examples of active incompetency training. The weekly briefings for three years that President Bush received describing the failure

of inspection teams to find WMDs in Iraq before the March 2003 invasion is one justification for assuming that he was consciously aware of engaging in active incompetency training—providing inaccurate information to achieve agreement and reduce disagreement among members of the U.S. Congress and the American public to justify his plans to invade Iraq.

Many trainers (e.g., parents, educators, and executives) may be unaware that they may be providing incompetency training in some contexts and in the use of some learning tools. Many beliefs and behaviors that humans learn informally as children and in everyday life are inaccurate and harmful; for example, implicit cultural training advocating that women should remain home throughout their lives and not attend college or work as executives, they should not have voting rights, and they do not merit pay equal to men for performing the same work as men.

Some amount of informal training in everyday life represents passive incompetency training that usually goes unrecognized especially among those of us who utter, "I am not biased." For example, Bertrand and Mullainathan (2004) provide evidence from a field experiment showing that job applicants named "Emily" or "Greg" received significantly more (50% more) invitations for job interviews than applicants named "Lakisha" or "Jamal" even when all had qualifications on paper that were similar. Humans often leap or blink (Gladwell, 2005) to conclusions, delusions, decisions, and actions—most of the time without considering the informal unconscious training supporting these leaps and outcomes and without considering whether or not such training reflects incompetency or competency (cf. Bertrand, Chugh, and Mullainathan,

2005; Gigerenzer, 2007; Wilson, 2002). Relatedly, Northcraft and Neale (1987) show that varying property listing prices in information given to experts (professional real estate appraisals) changes their appraisal decisions dramatically but most do not recognize or admit that such an influence on their decisions.

Trainers may be unaware of instances of engaging in formal (e.g., classroom) incompetency training leading to increases in knowledge, skills, and actions by trainees that are more negative, harmful, and/or useless in comparison to alternative training programs. For example, findings from surveys and experiments include reports of widespread use of product portfolio matrices (e.g., Boston Consulting Group's growth-share matrix) among business school professors and the discussion of such planning tools in management and marketing textbooks even though using such planning tools leads to making decisions with less desirable outcomes (i.e., lower profits) than not using them (see Anterasian, Graham, and Money, 1996; Armstrong and Brodie, 1994; Armstrong and Collopy, 1996; Armstrong and Green, 2007; Capon, Farley, and Hulbert, 1987; Morrison and Wensley, 1991; Spanier, Woodside, and Marshall, 2011). Anterasian et al. (1996, p. 74) offer the following suggestion for remedying this incompetency training, "…we suggest you find the portfolio models section and rip those pages out [of your textbooks]."

After reviewing a substantial number of empirical field and laboratory studies on the relationship of market share and profitability, Armstrong and Green (2007) conclude that the relationship is negative and statistically and substantively significant. While not recommending a business strategy to seek small versus large market share, they present

substantial evidence that first, firms having their primary objective of growing market share are less profitable and survive less frequently than firms having other primary objectives (e.g., earning profit as the primary objective) and, second, training students in advocating market-share growth as a primary objective is substantial in business schools in North America and Europe.

> While advocates of market-share objectives have provided no evidence to support their contention, their writings seem to have had an effect on the academic research. Ramos-Rodríguez and Ruíz-Navarro (2004) identified the 50 works that have had the greatest impact on strategic management research by counting citations in the *Strategic Management Journal*. Porter's (1980) competitor-oriented work was ranked first; an extraordinary distinction for a book that contains no evidence on this topic. With 44 citations [753 citations via Google. scholar as of 23 September 2011], Buzzell et al. (1975) was also included among the 50 most influential works and was the eighth most cited work from 1980 to 1986. Management textbooks repeat the claim that increasing market share will improve profitability. For example, the authors of Europe's best-selling strategy textbook wrote: "Since companies with higher market share have more cumulative experience, it is clearly important to gain and hold market share" (Johnson and Scholes 2002 168). (Armstrong and Green, 2007, p. 128).

INCOMPETENCY TRAINING THEORY

Figure 2 is a paradigm that builds from two propositions useful in developing a theory of incompetency training. The first is that incompetency training occurs in contexts at the individual and national levels. The second is that incompetency training occurs purposively (consciously) as well as unknowingly (unconsciously). However, all incompetency training processes in Figure 2 include a mix of unconscious and conscious processes to varying extents; the processes in the four quadrants vary in degree and are not completely distinct subcategories.

Figure 2 here.

Purposive, Individual-Level, Incompetency Training

The first quadrant in Figure 2 focuses attention on purposive incompetency training by trainers that is directed to increase incompetency in specific individuals (e.g., consumers, students, and executives). The Bernard Madoff global Ponzi scheme, arrest, and imprisonment illustrate highly effective incompetency training of wealthy, highly educated, trainees—training in operation over more than a decade with investments in the scam reaching $36 billion.

From prison Madoff commented on the incompetency of U.S. Securities and Exchange Commission (SEC) regulators: “I was astonished. They never even looked at my stock records. If investigators had checked with the Depository Trust Company, a central securities depository, it would've been easy for them to see. If you're looking at a Ponzi scheme, it's the first thing you do” (Gendar, 2009, p. 1).

Since Madoff's arrest, the SEC has been criticized for its lack of financial expertise and lack of due diligence, despite having received complaints from Harry Markopolos (2011). The SEC's Inspector General, H. David Kotz, found that since 1992, six botched investigations of Madoff were completed by the SEC, either through incompetent staff work or neglecting allegations of financial experts and whistle-blowers (Wikipedia, 2011).

What is missing from reports on Madoff and SEC investigation incompetency is an in-depth independent investigation of the apparent incompetency training that SEC investigators receive – and possibly continue to receive in the SEC. For example, if Madoff is correct about the ease of uncovering his massive frauds, did/do SEC investigators receive training in examining stock trades posted with the Depository Trust Company? What training did/do SEC investigators receive in uncovering wrong-doing and incompetency? Assuming incompetency training occurred at the SEC throughout the 1990s and the first decade of the 21st century, what steps have been implemented since Madoff's arrest to eliminate such incompetency training and to create/verify competency-training programs?

The development of incompetency-training theory would provide a helpful contribution toward justifying performance evaluations in Ph.D. dissertation studies of such theory. Incompetency-training theory would focus attention on identifying antecedent paths (i.e., causal recipes) leading to incompetency- training program development as well as processes of engaging in incompetency training, and the impacts of trainees receiving such training.

The 2010 movie, *Inside Job*, documents the widespread successful strategies in selling financial products known to be "crap" (U.S. Senator Carl Levin) by a leading firm in the financial industry. Here is a description of scene and verbal exchange between Senator Levin and the former Goldman Sachs executive in the movie and a commentary of the exchange:

> In a televised hearing, Senator Carl Levin asks a former executive at Goldman Sachs, "What do you think about selling securities which your own people think are 'crap'?" Levin is referring to confidential internal e-mail, now subpoenaed for this hearing. There is a disoriented pause. The pinstripe suited exec looks around himself in panic. Finally comes his response, as frightening as it is hilarious. "I think it is very unfortunate that anyone would state that opinion in an e-mail." The question is not "are we being ethical?", or even "are we doing good business?" but "how did we get caught?" (Ardagh, 2010, p. 1)

The movie's director, Charles Ferguson's (2011) brief acceptance speech for the 2011 Academy Award for Documentaries offers a chilling postscript to the movie, "Forgive me, I must start by pointing out that three years after our horrific financial crisis caused by financial fraud, not a single financial executive has gone to jail, and that's wrong." A remarkable documentary reporting on pervasive and highly successful incompetency training!

"Response category effects" appears in the first quadrant of Figure 2. Slovic, Monahan, and MacGregor (2000) and Schwarz, Hippler, Deutsch, and Strack (1985) demonstrate that researchers can manipulate judgments of laypeople and professionals substantially simply by changing the choice of categories even after receiving training. See Figure 3.

Figure 3 here.

Even after receiving a tutorial in probability theory that included what is meant by harm, what a probability is, how probabilities are assessed, and an explanation and warning about category effects, the average probability response of predictions of the probability of a violent act by a person after reading a case study was 34 percent when large probabilities were used but 22 percent when small probabilities were used in the response scale—subjects in this study were members of the American Psychology-Law Society (Slovic et al., 2000).

In reading the above paragraph, Roger Marshall (2011), Auckland University of Technology, commented, "Being 'sucked in' by a framing device is hardly incompetent, or every human is incompetent by definition. Your example doesn't suggest that the participants were given training about framing effects, after all." My response: the evidence refers to substantial category effects occurring due to how the trainer frames responses to the question and that a trainer can bias the answers participants give and the trainer reports due to category effects. Not all participants get sucked-in especially if counter incompetency training in category effects is effective.

Gigerenzer (2002) provides two possible antidotes to incompetency training to overcome category effects include reducing uncertainty in the minds of risk assessors, for instance, by providing them with statistical information about the actual violent behavior of inmates on parole or patients on weekend release. "As their knowledge increases, their uncertainty diminishes, and the category effect will eventually disappear. A second way is to dispense with response categories and use other tools for risk assessment, for example, an open-ended response format: 'Think of 100 patients like Mr. Jones. How many will turn violent within six months? _____ out of 100" (Gigerenzer, 2002, p. 195). A third antidote is having decision-makers practice answering before, during, and after coaching by an expert on counter-incompetency-training. Schank (1995) emphasizes the necessary but not sufficient condition of effective learning via practice. However, additional scientific evidence is necessary to test the efficacy of these training tools.

Note that "groupthink 1" appears partly in quadrants 1 and 4 to indicate that groupthink in particular is partly consciously and unconsciously an antecedent to sense-making and decision-making by individuals and firms. Janis (1972), analyzing policy decisions such as the Bay of Pigs invasion, the Cuban missile crisis, and the escalation of the Vietnam War, identifies in those that ended disastrously a cluster of symptoms for which he coins the term, "groupthink." Defined in Merriam-Webster's dictionary as "a pattern of thought characterized by self-deception, forced manufacture of consent, and conformity to group values and ethics," the official inquiries conducted on the Challenger and Columbia space shuttle disasters documents groupthink. Groupthink is likely a contributing factor in the failures of companies such as Enron and Worldcom, in some

decisions relating to the second Iraq war, and most recently in the housing and mortgage-related financial crisis (Bénabou, 2009).

Park (1990) provides a meta-analysis of the results of 16 empirical studies on groupthink. The results of the analysis contradict the findings Janis (1972) claims about groupthink antecedents. Park (1990, p. 230) concludes, "Despite Janis' claim that group cohesiveness is the major necessary antecedent factor, no research has showed a significant main effect of cohesiveness on groupthink." Park also concludes that research on the interaction between group cohesiveness and leadership style does not support Janis' claim that cohesion and leadership style interact to produce groupthink symptoms.

Details in case study research provides telling support for the perspective that several different alternative causal chains or recipes occur as complex antecedent conditions of groupthink behavior and subsequent negative (sometimes disastrous) outcomes. For example, relating to groupthink 1 in Figure 2, the Tenerife KLM 747 Flight 4805 takeoff disaster (where the KLM aircraft ran into a second 747 jet parked on the runway on Tenerife Island) resulted in the loss of 584 lives.

Relating to groupthink 2 in Figure 2, good examples are provided by well-known, authoritative US Government statements concerning the Vietnam War, the second American–lead Iraq War, the U.S. federal deregulation of the financial industry and the de facto shut-down of regulator agencies starting with President Reagan and continuing though President G.W. Bush's administrations.

Showing deference to a group member who is the recognized leader appears in many of groupthink causal chains. A strong authority (an "initiator" proposing a solution or presenting a defacto next course of action, often overwhelms one or more other group

members that often are natural members within group, for example, "blockers," "supports," and "observers" (see Brafman and Brafman, 2008).

For example, the co-pilot of the Tenerife disaster initially gave a blocking message to the captain of the KLM Flight 4805 (Jacob Van Zanten), "Wait a minute," the copilot said in confusion. "We don't have ATC clearance." "I know that," Captain Van Zanten replied as he hit the breaks and stopped the takeoff. "Go ahead and ask." The co-pilot got on the radio and received airway clearance—approval of the flight plan. But the tower said nothing about the vital takeoff clearance. Yet, determined to take off, Van Zanten turned the throttles to full power and roared down the foggy runway. The co-pilot said nothing further. Both were killed along with 582 passengers and crew members in the deadliest airplane collision in history.

> The thick fog contributed to the disaster. Van Zanten couldn't see the Pan Am plane, the Pan Am pilot couldn't see him, and the tower controllers couldn't see either one of them. On top of that, the tower was undermanned, and the controllers were distracted by the day's events. Despite all these factors, though, the tragedy would never have occurred if Van Zanten hadn't take off without clearance. Why would this seasoned pilot, the ***head of safety*** at the airline, make such a rash and irresponsible decision? (Brafman and Brafman, 2008, p. 15, italics in the original)

Also important to ask, what enactments in the procedure of airplane takeoffs specifically and groupthink in general are examples of groupthink that are representative of incompetency training? What new protocols can be built into training to reduce the

risk that life-threatening errors in judgment are due in part to thinking and interactions among a pilot, co-pilot, and traffic controller?

"The National Aviation Safety Administration's (NASA's) research into plane crashes ultimately helped revolutionize aeronautical procedures. A new model for cockpit interactions was born: Crew Resource Management (CRM), which teaches pilots, among other skills, how to be effective blockers [in communicating to block bad decisions and actions]" (Brafman and Brafman, 2008, p. 163).

CRM is distinctly designed to get away from "the captain is the man" view. Pilots are trained to communicate effectively and accept feedback, and crew members are taught to speak up when they see that their superior officer is about to make a mistake. When pilots spot a departure from safety procedures, they are ***trained*** to challenge the captain. The challenge takes the form of three steps that all Southwest pilots know by heart. "The first step is to state the facts" –for example, "Our approach speed is off." If that's ineffective, the next step is to "challenge." According to a CRM instructor Captain Cathy Dees, research shows that "generally the best way to challenge someone is to use their first name and add a quantifier to the fact. 'Mike, are you going to make it on this approach? Check you altitude… It's important to state the fact without being condescending'" (Brafman and Brafman, 2008, p. 166).

> If these two procedures fail, the third step is to "take action. If someone were flying an unstable approach—that means they were approaching the runway and they were perhaps too high or too fast, or not in a condition to make a normal approach—we would want them to ago around," Dees explained. The action would be to get on the radio and say, for example,

> "Southwest 1 going around, we're too high," and once you say something on the radio, the tower controller will cancel your landing clearance. And that way the action takes place without physically fighting over equipment in the airplane, which might aggravate the person flying. (Brafman and Brafman, 2008, p. 167)

One key to reduce groupthink processes is to train individual and working groups into how to effectively counter culture-based incompetency training (e.g., showing deference to superior authorities). Pilots and co-pilots now receive refresher coaching instruction in countering such incompetency training. Note that step three represents a dynamic shift toward transparency; communicating the occurrence of an incompetency-in-context to others increases the likelihood that corrective action will occur (but sometimes not, see Markopolos, 2011). The effectiveness in using devil's advocates and role-playing to counter incompetency training in groupthink receives substantial support in the relevant literature (Amstrong, 1977; Cosier, 1978; Green, 2002; Schweiger, Sandberg, and Ragan, 1986; Schwenk, 1990).

The idea of coaching is a big one for reducing hubris and groupthink incompetency training. Consider the following coaching application to reduce incompetency training.

> California researchers in the early 1980s conducted a five-year study on teacher-skill development in 80 schools, and noticed something interesting. Workshops led teachers to use new skills in the classroom only ten percent of the time. Even when a practice session with demonstrations and personal feedback was added, fewer than twenty per cent made the

> change—when a colleague watched them try the new skills in their own classroom and provided suggestions—adoption rates passed ninety per cent. A spate of small randomized trials confirmed the effect. Coached teachers were more effective, and their students did better on tests. (Gawande, 2011, p. 47)

Gawande (2011), a highly successful surgeon, reports on his decision and use of a coach. He hired Robert Osten, a retired general surgeon, whom he trained under during his residency. Gawande points out that it's never easy to submit to coaching, especially for those who are well along in their careers. "I'm ostensibly an expert. I'd finished long ago with the days of being tested and observed. I am supposed to be past needing such things. Why should I expose myself to scrutiny and fault-finding? I have spoken to other surgeons about the idea. 'Oh, I can think of a few people who could use some coaching,' has been a common reaction. Not many say, 'Man, could I use a coach!' Once I wouldn't have either" (Gawande, 2011, p. 53).

How many tenured professors would admit to benefitting from a coach observing them and suggesting improvements? Should coaching/mentoring be part of all instruction? One final observation by Gawande helps to answer these questions.

> There was a moment in sports when employing a coach was unimaginable—and then came a time when not doing so was unimaginable. We care about results in sports, and if we care half as much about results in schools and hospitals we may reach the same conclusion. (Gawande, 2011, p. 53)

If Schank's (2011) and Dewey's (1916/2011) perspective is accurate—learning by doing is necessary for real learning to occur—then the teacher-as-coach model follows naturally. However, Dewey (1916/2011, p. 38) observes, "That education is not an affair of 'telling' and being told, but an active construction process, is a principle almost as generally violated in practice as conceded in theory." If you are professor and reading this sentence, ask yourself, are you coaching your students while they learn-by-doing or are you mostly lecturing? Do you personally have a coach? When was the last time a coach came into your classroom? Would you feel more or less comfortable if your dean had a coach? Should the U.S. President have a coach?

Purposive, Public Level, Incompetency Training

The second quadrant in Figure 2 recognizes that planned incompetency training does occur at federal, state, and city government levels. This proposition is not to say that all training government units have the objective of increasing incompetency among employees in these units or in the public. Certainly the available evidence indicates that the training of financial investigators in the SEC is purposively incompetent. The lack of any publicly available data on testing of the effectiveness of training of financial investigators in the SEC as well as Markopolos' (2011) exchanges with the SEC and Kotz's report on the failures of SEC investigators implies that the SEC provides incompetency training to its investigators.

If the SEC's own inspector general and independent auditors confirm that incompetency training of investigators continues to occur at the SEC, the causes for such training might become clear. Most likely, incompetency training of government regulatory agencies occurs and reduces the effectiveness of agencies. These agencies

cannot be eliminated easily. The commissioners heading these agencies are appointed frequently by government leaders advocating industry self-regulation; commissioners so appointed show infrequent interest in using the commission's mandated authority to investigate specific industries. This perspective follows from the findings of the U.S. Financial Crisis Inquiry Commission.

The causal chain of events in the recent financial worldwide meltdown includes the extreme deregulation of the U.S. financial industry beginning with Ronald Reagan's (1981-89) ending of effective government regulatory agencies. The U.S. Financial Crisis Inquiry Commission reported its findings in January 2011. The report concludes that "the crisis was avoidable and was caused by:

- Widespread failures in financial regulation, including the Federal Reserve's failure to stem the tide of toxic mortgages;
- Dramatic breakdowns in corporate governance including too many financial firms acting recklessly and taking on too much risk;
- An explosive mix of excessive borrowing and risk by households and Wall Street that put the financial system on a collision course with crisis;
- Key policy makers ill prepared for the crisis, lacking a full understanding of the financial system they oversaw; and systemic breaches in accountability and ethics at all levels" (FCIC, 2011).

"Tort reform" is a second example of purposive, national, and state level, incompetency training. Tort reform refers to proposing changes in common law civil

justice systems that would reduce tort litigation or damages. Tort reform advocates focus on personal injury common law rules.

Independent assessments indicate that tort reform advocates are engaging in incompetency training; an HBO documentary, *Hot Coffee* (Saladoff, 2011), describes instances of grave harm relating to the behavior of firms advocating tort reform. Eviatar (2009) summarizes arguments in favor of tort reform and evidence refuting these arguments.

> Gov. Rick Perry of Texas in the *Washington Examiner* boasts that Texas tort reform that capped injured patient's damages was the answer to his State's problems. And the American Medical Association has said it won't support any health reform bill that doesn't reduce liability for doctors. "If the bill doesn't have medical liability reform in it, then we don't see how it is going to be successful in controlling costs," James Rohack, president-elect of the organization, told Politico in March. "Why spend the political capital and energy in passing a bill if it is not successful?"
>
> So far Republicans have mostly focused on tearing apart any reform with a role for the federal government, portraying it as the government dictating how long old people get to live. But an undercurrent of those complaints is the insistence of doctors, hospitals, insurance companies and ideological conservatives that medical malpractice claims are out of control and a leading cause of rising health care costs.

> The health economists and independent legal experts who study the issue, however, don't believe that's true. They say that malpractice liability costs are a small fraction of the spiraling costs of the U.S. health care system, and that the medical errors that malpractice liability tries to prevent are themselves a huge cost– both to the injured patients and to the health care system as a whole.
>
> "It's really just a distraction," said Tom Baker, a professor at the University of Pennsylvania Law School and author of *The Medical Malpractice Myth*. "If you were to eliminate medical malpractice liability, even forgetting the negative consequences that would have for safety, accountability, and responsiveness, maybe we'd be talking about 1.5 percent of health care costs. So we're not talking about real money. It's small relative to the out-of-control cost of health care." (Eviatar, 2009)

Ralph Nader (2009, p.1) summarizes the case for relabeling "tort reform" as "tort deform." "Since it was founded, our nation's legislature has never attempted to federally tie the hands of judges and juries in the manner advocated by business interests today. The reason we are seeing tort deformers push the myriad pieces of legislation that would immunize doctors from malpractice responsibility; that would protect oil companies from cleaning up polluting components of gasoline from our drinking water sources; or that would make more onerous the ability of class actions to succeed against wealthy cigarette manufacturers, asbestos manufacturers and other corporations, is because they need only establish a few federal legislative precedents to open the tort deform floodgates. The

resulting slippery slope would have lobbyists from every conceivable industry clamoring for their own set of legislated escapes from the law. Take the time to familiarize yourself with the tort deform debate - don't let Congress brush aside the most fundamental tenets of the judicial system, in case you are wrongfully injured or defrauded, to satisfy corporate avarice and greed."

The objective here is not to offer conclusive evidence that tort reform advocates are engaging in incompetency training. However, watching *Hot Coffee* and reading Baker's book do give warning that tort reform lobbyist and the speeches by former President George W. Bush and Texas Governor Rick Perry on tort reform are examples of incompetency training. Given the budgets being spent on such training and the recent successes in passing state laws supporting tort reform (nine states passed such laws by August 2011), the likelihood is high that such tort-reform incompetency training will achieve its trainers' objectives throughout this decade.

Purposive, state level, incompetency training includes the work by state agencies having the responsibility of marketing their states as tourism destinations. Woodside and Sakai, (2003, 2009) provide reviews of state management, mostly negative audit reports, indicating continuing incompetency training in several American States, for example, the Hawaii Tourism Authority (HTA). The Woodside and Sakai (2009) study also indicates continuing (1987-2003) incompetency training by the Legislative Audit Office of Hawaii as well—its focus mainly on minor financial issues; no identification of sound marketing management practices necessary (such as preparing a written annual marketing plan,

selecting target markets, applying sound metrics to measure marketing performance) to implement to overcome incompetency training in the HTA.

State, National, Global Trainer Unconscious Imparting of Incompetency Training

Quadrant 3 in Figure 2 includes trainer unconscious imparting of incompetency training. The foundation for the success of such training includes appeals to core values and precedence of the trainers advocating beliefs and actions resulting principally in incompetent outcomes. Such trainers and their supporters are unconscious that their messages and actions lead principally to incompetency.

Referring to Hofstede's (1991, 2001) theory of the consequences of cultural values the explicit American core value causal recipe includes the combination of high individuality, high masculinity, low uncertainty avoidance, and low power distance. The American cowboy is an iconic representation of this value combination (Woodside, Hsu, and Marshall, 2011). Except in times of crises (e.g., the American Civil War, the Great Depression, World War II, the recent financial meltdowns), unconsciously this value combination supports advocating less government, self-regulation rather than government regulation, government as the problem rather than the solution. The cowboy carries with him every thing that he needs—without need for government support or regulations.

Robert Brent Toplin is Professor of History at the University of North Carolina, Wilmington, and the author of a dozen books including *Radical Conservatism: The Right's Political Religion* (2006). He offers evidence supporting the observation of highly effective national, unconscious incompetency training.

As the country's greatest modern champion of deregulation, perhaps Ronald Reagan contributed more to today's unstable business climate than any other American. His long-standing campaign against the role of government in American life, a crusade he often stretched to extremes, produced conditions that ultimately proved bad for business…

Recent troubles in the American economy can be attributed to a weakening of business regulation in the public interest, which is, in large part, a consequence of Reagan's anti-government preaching. In the absence of oversight, lending became a wildcat enterprise. Mortgage brokers easily deceived home buyers by promoting sub-prime loans, and then they passed on bundled documents to unwary investors. Executives at Fannie Mae packaged both conventional and sub-prime loans, and they too, operated almost free of serious oversight. Fannie's leaders spent lavishly to hire sixty Washington lobbyists who showered congressmen with campaign funds. Executives at Fannie were generous to the politicians because they wanted to ward off regulation.

Meanwhile, on Wall Street, brokerage firms became deeply committed to risky mortgage investments and did not make their customers fully aware of the risks. The nation's leading credit rating agencies, in turn, were not under much pressure to question claims about mortgage-based instruments that were marketed as Blue Chip quality. Government watchdogs were not active during those times to serve the interests of the public and the investors.

> The most influential person to call for a more powerful watchdog recently is Secretary of the Treasury, Henry Paulson. After responding to the credit crisis by working with the Federal Reserve to shore up and bail out floundering business organizations, Paulson has become the leading challenger to Reagan's outlook on government. During an August 10 interview on *Meet the Press* Paulson stressed over and over again that "the stability of our capital markets" requires "a strong regulator." Our regulatory system is badly "outdated," Paulson complained. Market discipline should be tightened by assigning a "regulator with the necessary power," said the Treasury Secretary.
>
> Henry Paulson never mentioned Ronald Reagan's name during the interview, but the implications of his remarks were clear. Reagan's views of the relationship between government and business helped to put the nation and the world into a good deal of trouble. It is time to recognize that the former president's understanding of economics was not as sophisticated as his enthusiastic supporters often claimed.
>
> Reagan deserves credit for serving as a vigorous defender of free markets, but he carried the idea to extremes. Ironically, the great champion of business enterprise advocated policies that have seriously hurt business here and abroad. (Toplin, 2008, pp. 1-2)

Quadrant 3 in Figure 2 includes additional examples of high-impact, national-level, incompetency training driven by trainers' unconscious thinking, that is, without trainers who advocate these beliefs and actions recognizing the substantially incompetent

outcomes that follow from such training. The examples (and sources for examining) this incompetency training include the following national-level propositions and laws:

- Slavery as God's will (see Weems, 2008)
- "Separate but equal" advocacy and laws (became dominant national logic and federal law in 1896 that ended in Brown v. the Board of Education in1954)
- Efficient market hypothesis (advocated first by Fama, 1965 that an "efficient market" occurs that is defined as a market where there are large numbers of rational, profit-maximizers actively competing, with each trying to predict future market values of individual securities, and where important current information is almost freely available to all participants; identified as "bunch of junk" by money-manager Peter Lynch in 1995; cf. Ball, 1995; Fox, 2009)
- The U.S. Chinese Exclusionary Acts starting in 1882 and ending in 1943
- Gays threaten unit cohesion in the military (dominant view in the military starting in 1920 and recognized to be inaccurate in 2011 resulting in the repeal of "Don't ask, Don't Tell" regulation, cf. Lynch 2008.)

Unconscious Individual and Firm Level Incompetency Training

Trainers unknowingly providing inaccurate, misleading, and sometimes dangerously wrong information and recommendations appear in quadrant 4 of Figure 2. Examples of such incompetency training include:

- Geocentric theory (Ptolemy, 150CE/1952; Toomer, 1998) (that Earth is center of the universe) was the dominant logic among scholars and Christian religious leaders for 1,500 years; Ptolemy's work provides much in competency training as

well in the fields of mathematics, geography, as well as astronomy for several centuries; geocentric theory was finally superseded by heliocentric theory beginning in the 16th century in a three-century struggle that included the publication of Copernicus' (1543) master work, *De revolutionibus orbium coelestium* (*On the Revolutions of the Celestial Spheres*); Copernicus mostly completed his masterwork by 1530 but hesitated for more than a decade to publish the complete version due to its highly controversial content (see Sobel, 2011); after publication, Martin Luther identified Copernicus to be a fool (Kuhn, 1957, p. 191); Copernicus (1543) was on the Roman Catholic Church's *Index of Forbidden Books* from 1616 until 1758 (Catholic Encyclopedia, accessed 2011).

- Portfolio planning methods (e.g., BCG growth-share matrix discussion below)

- Experience curve training—"Since companies with higher market share have more cumulative experience, it is clearly important to gain and hold market share" (Johnson and Scholes, 2002, p. 168). Johnson and Scholes (2002) suggest that following their recommendation would lead to improved profitability, "The link between performance and relative market share, which is emphasized by the experience curve work, is supported by the findings of the PIMS database…" (p. 365). Readers were also told "these benefits of market share can be even more important in global markets" (p. 370). Training/information now given by medical doctors to patients that the patient has HIV after testing positive HIV tests (see Gigerenzer, Hoffrage, and Kleinbölting, 1991)
- Reports on "key success factors" in product innovation management (no one factor is sufficient or necessary for success; to reduce frequency of incompetency

training outcomes, consider causal chains of factors as recipes of key success paths that associate with success rather than the net effect of each factor on success, see Woodside, 2009).

An example of firm-level incompetency training where the trainer is unaware of the negative impact of the training includes training by marketing and management professors in business school in describing product portfolio planning methods as well as focusing the trainee (i.e., students) on information about how the firm's decisions affect competitors' outcomes rather than focusing attention on profit of the trainees' firm. These methods include most classroom descriptions of the Boston Consulting Group (BCG) growth-share matrix.

In a classroom-setting experiment by Armstrong and Brodie (1994), subjects in a (baseline) treatment groups were asked to make a choice between two investment alternatives. Here are summaries of the two choices:

- Invest $1.5 million in a better way to make Digits. The forecasts are that, while this invention would not affect the final demand, it would produce cost savings after taxes of about $500,000 per year for the next ten years. After the initial outflow of $1.5 million, the invention would yield a net cash flow of $500,000 per year. Your sales forecasts for Digits show it holding steady for the next ten years. Digits has a modest current sales volume, is in a market that is not growing at all, and it has a small market share, about ¼ of the leading competitor. Digits now has barely adequate profits of $50,000 per year and it has negligible cash flow.

- The alternative investment is in the Sunbars product-line. The Sunbars division has an opportunity it feels would strengthen its position in the market. It proposes a new advertising campaign. The $1.8 million investment would generate after-tax profits of $400,000 the first year, $300,000 the second, and $100,000 per year for the next eight years. Cash flow would be approximately the same as profits. Sunbars has a relative market share of 1.5 (versus its leading competitor), and it is in a market growing 20% per year. Cash flow from Sunbars is negligible. Sunbars produces an after-tax profit of $500,000 per year. Future prospects for Sunbars are good.

Rather than receiving the baseline treatment, some subjects were assigned randomly to receive information on the BCG planning matrix for identifying high and low sales growth by high and low market share product lines (a 2 X 2 matrix). Additional subjects were assigned randomly to receive information on the net present value (NPV) rather than the baseline or the BCG matrix information.

Armstrong and Brodie (1994, p. 78) report, "The most surprising result was that in 44.7% (n = 228) of the decisions, subjects in control groups failed to select what was designed to be an obviously more profitable investment" (i.e., the Digits investment). A higher share of subjects (n = 296) receiving training (information) in the BCG matrix, selected the less profitable decision than the share of control group subjects (63.5% v. 44.7%). Training in competency (n = 232) – the NPV treatment – did reduce the share of subjects selecting the less profitable alternative versus the training in incompetency and the baseline treatment (37.1% v. 63.5% v. 44.7%).

Indicating the unconscious thinking that goes hand-in-hand with teaching the BCG, Capon et al. (1987, p 69) present evidence that it is the most widely used portfolio method in US firms. "Morrison and Wensley (1991), in their survey of teachers at 34 business schools in the UK, found that the BCG matrix is taught at all schools and that warnings are seldom discussed" (Amstrong and Brodie, 1994, p. 74).

A second series of studies, Armstrong and Collopy (1996) exposed 65 subjects in a base treatment group that made no mention of competitors. Here is the information provided to subjects in this base treatment:

You are the marketing manager of a manufacturing firm know as Big Guys, Inc. As the company's marketing manager, you are responsible for all marketing decisions and strategies, including the pricing structure of the firm's products. Recently your company introduced a new highly technical product, and you have been asked to set the pricing strategy for this product. You calculate the present value of the total profits expected for your firm over the next five years. You determine the following results for both strategies:

Expected Profits over Five years

Low-Price Strategy	High-Price Strategy
$40 million	$80 million.

Additional treatments included harm your major competitor versus beat your major competitor treatments; see Armstrong and Collopy (1996) for details.

When no information was provided about the performance of competitors, 14% of the 65 subjects selected the less profitable decision. This finding might suggest that several rounds of practice in decision making may be necessary and/or training in additional methods in generating competent decisions are necessary to achieve 100% competent decisions. In the harm the competitor treatment condition, 34% of the 139 subjects selected the less profitable decision. In the best the competitor treatment 60% of the 60 subjects selected the less profitable decision. Thus, subjects in the harm and beat treatments were two to more than four times more likely to select the less profitable decision than when no information was provided about competitors.

Kalra and Soberman (2008) provide similar findings in additional experiments using other scenarios. In reviewing additional studies, Kalra and Soberman (2008, p. 32) conclude, "These studies show that managers do not naturally gravitate to strategies that maximize outcomes. Griffith and Rust (1997) extend these ideas by demonstrating that managers place a high value on performance relative to competitors (and not absolute profits), even when they are explicitly instructed to maximize their own profits and are compensated on the basis of their own profit performance."

Figure 4 summarizes findings in three sets of studies on the impact of baseline (control) treatments. The findings in Figure 4 support the perspective that not mentioning (treatments a1 and a2) the concept "market share" in decision scenarios is likely to result in the lowest frequency of incompetency outcomes. Referring to "market share" only in reporting a focal firm's 49.1% share with no mention of any competitor's share or competitors' shares resulted in 22% of subjects selecting the incompetent decision, an incompetent outcome share lower than the share (27%) following competency training to

ignore market share information and focus on profitability—treatment c5 versus c4, respectively.

Figure 4 here.

Many decision-makers appear to be inherently vigilant about share information rather than profit information to the extent that providing any information about competitors' market shares may cause them to select options that are incompetent in comparison to readily available more competent options. Lots of practice-in-doing—thinking and making decisions may overcome this incompetency bias toward beating competitors rather than increasing firm wealth. Schank (1995) emphasizes that learning new skills requires practice with opportunities to make mistakes and repetitive doing necessary tasks multiple times until the trainee acquires both implicit-tacit-unconscious abilities as well as explicit-conscious abilities to do all steps necessary accurately. Testing Schank's competency-causing strategy is necessary to learn if, indeed, practice (possibly with coaching) overcomes exposure to incompetency training.

A meta analysis of the findings in Figure 3 includes an average incompetency share for the seven control treatments equal to 31.7, standard error equal to 6.6; the average incompetency share for the seven incompetency training treatments is 49.7, standard error equal to 5.1; the average incompetency share for the three competency training treatments is 33.3, standard error equal to 3.2. Incompetency training overall is successful in increasing incompetency outcomes while competency training is unsuccessful in reducing incompetency outcomes in comparison to the findings for the baseline control treatments. More powerful tools (possibly practice sessions, coaching

before, during, and post decision-making, and visualizing potential outcomes using bar diagrams) are necessary to overcome the inherent bias favoring incompetence training.

Incompetency training about the high value of growing market share builds in part from frequent reporting in textbooks and articles of an article in *Advertising Age* (1983) representative of one form of incompetency training. The 1983 article reports on brand market-sales leadership from 1923-1983. In performing the historical method in marketing research, Golder (2000) reports the following observations.

> The original 1923 book [data on market-sales leadership in 1923] reveals a startling finding about the commonly referenced data that "19 out of 25" market leaders maintained their leadership for at least 60 years. Although this finding of long-term leadership has been widely reported in marketing textbooks and journals and in the mass-market publications, it is based on a biased sample. The original 1923 study was not done on 25 categories, but rather 100 categories (Hotchkiss and Franken 1923). The sample of 25 categories was selectively chosen to demonstrate long-term leadership. Therefore, the Advertising Age study is dramatically flawed, and the report of long-term leadership are overstated. (Golder, 2000, p. 162)

Golder (2000) collected data in the relevant literature to examine market leadership in all 100 categories in the original report (Hotchkiss and Franken, 1923) for 1923-1997. Golder's (2000, p. 163) findings include the following observations, "More of the leading brands in 1923 failed than remained leaders. More of the top three brands in 1923 failed than remained among the top five brands. Market shares over this

prolonged period are not stable; regressions of rank-order market share versus time show a significant decrease in market position over time."

The cherry-picking of data to support a trainer's (e.g., writer's perspective for the *Advertising Age* 1983 article) perspective and discarding data that do not do so is representative of incompetency training in the first quadrant of Figure 2. Referrals to such inaccurate information as evidence supports an apparent unconscious bias in trainers that favors market share rather than profitability as the principal objective of the firm—quadrant 4 in Figure 2.

Related to trainers unknowingly providing incompetency training (quadrant 4 in Figure 2), Gigerenzer (2002) and associates (Chase, Hertwig, and Gigerenzer, 1998; Gigerenzer, Hoffrage, and Ebert, 1998) provide details of a study on how dangerous incompetency training can be. Counseling and literature for the public before and after HIV testing is intended to help the client understand the risks of HIV infection and the meaning of a positive and a negative result. Gigerenzer (2002 and Gigerenzer et al. (1998) report a field observation study where one of the authors (Axel Ebert) volunteered to go undercover to 20 public health centers to have 20 HIV tests. The centers are located in 20 German cities, including the three largest, and they offer free HIV tests and counseling to the general public. Pretest counseling is mandatory, and this allowed Ebert to ask relevant questions, such as "Could I ever test positive if I do not have the virus? And if so, how, often does this happen?" Of the 20 professional counselors Ebert met face-to-face, 14 were physicians and the others were social workers.

When it came to explaining Ebert's risk of being infected if he tested positive, most counselors lacked the ability even to estimate, much less to communicate the risks. The majority of counselors (13) incorrectly assured the client (Ebert) that false positives never occurred. Ten of the counselors asserted incorrectly that if a low-risk man tests positive, it is absolutely certain (100%) that he is infected with virus. (Based on the best figures available, this probability is, in fact, around 50 percent.)

An examination of hospital and government AIDS leaflets in the U.S. and Germany provide similar incompetency-training information. For instance, one leaflet, "Coping with HIV Disease," distributed by the Illinois Department of Public Health, leaves no room for uncertainty: "A person who is HIV positive has HIV disease." See Gigerenzer (2002, p. 139).

Trying to solve problems in uncertainty using conditional probabilities rather than natural frequencies is a major problem. Gigerenzer (2000) identifies the problem in a causal chain of factors in incompetency training by counselors (including most physicians and humans generally). Before reading on, please read the information and two questions in Figure 5 and use the information to answer the questions. (Be sure to commit to your answers by writing them down.)

Figure 5 here.

Hoffrage and Gigerenzer (1998) asked 24 physicians to answer the two questions appearing in Figure 5. A second group of 24 physicians answered the same questions appearing in a different format (natural frequencies). The 48 physicians were assigned randomly to the two groups. All physicians answered the two questions working individually.

When answering the first of the two questions after reading the information appearing in conditional probabilities (in Figure 5), the estimates ranged from 1 percent to 90 percent. One-third of the physicians estimated the chances to be between 50 percent and 80 percent. When the information was presented in probabilities, the median estimate was 70 percent. The majority of physicians grossly overestimated the risk of breast cancer. Only 2 of the physicians reasoned correctly giving estimates of about 8 percent; another 2 percent estimated the chances near the percentage but for the wrong reasons.

When answering the second question in Figure 5, extraordinary differences occurred among the physicians' estimates, which ranged from 1 to 99 percent. "The most frequent estimate (50%) was 10 times higher than the correct answer, which only 1 out of the 24 physicians reached when they received the information in probabilities" (Gigerenzer, 2002, p. 105).

How did the second group of physicians manage in answering following receiving the same information in natural frequencies? For the problem in the left side of Figure 6, the majority of the 24 physicians responded with the correct answer, or close to it. Only five of the physicians who received the information in

natural frequencies concluded that the chance of breast cancer given a positive mammogram was above 50 percent (Hoffrage and Gigerenzer, 1998). Simply stating the information in natural frequencies helps to counter incompetency training.

Figure 6 here.

"The implication of this finding is not to blame physicians' (or patients') inability to reason about probabilities. Rather, the lesson is to represent risks in medical textbooks and in physician-patient interactions in a way that comes naturally to the human mind. Natural frequencies are a simple, inexpensive, and effective method of improving diagnostic insight" (Gigerenzer, 2002, p. 44.)

Using natural frequencies for the second problem (right side of Figure 6) dispelled mental confusion. The responses were less scattered and ranged from 1 to 10 percent. All the physicians came up with the correct or nearly correct answer. "As with the breast cancer screening, physicians' clouded thinking about what a positive hemoccult test means can be remedied [to a substantial extent] simply by presenting statistical information differently than it is presented in standard medical textbooks" (Gigerenzer, 2002, p. 105).

MILESTONES AND SALAD DAYS IN INCOMPETENCY TRAINING

Throughout history, specific tipping points supporting incompetency training are identifiable. Identifying such milestones, their antecedents, and outcomes may be helpful

in taking indentifying and controlling future incompetency training milestones. This section briefly summarizes a few of these historical milestones.

Article 1, Section 2, Paragraph 3 of the United States Constitution was a 1787 compromise supporting incompetency training regarding slavery for many decades. "Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons [i.e., slaves].

The U.S. Army did not have much official interest in homosexuals and homosexual conduct until the 1920s, when *consensual* sodomy was criminalized for the first time in the Articles of War, and the Army began administratively discharging gay Soldiers regardless of conduct. During the 1920s and 1930s, the official-and stated-rationale for these separations was medical: homosexuality was an illness and sick men should not be in uniform. This medical rationale continued to be at the root of Army policy in World War II, as the Army-relying on the expert opinions of psychiatrists and psychologists-steadfastly insisted that homosexuality was a sexual psychopathy and that this deviancy required the exclusion of homosexual men (and women) from the Army (Borsch 2010; Kesler 2010)

The (Smoot-Hawley Act) Tariff Act of 1930 raised tariffs on over 20,000 imported products to record levels. After the 1929 stock market crash unemployment never reached double digits in any of the 12 months following that event, peaking at 9 percent, then drifted downwards until it reached 6.3 percent in June 1930. Then the

federal government made its first major intervention in the economy with the Smoot-Hawley tariff. After passage of the tariff, the downward movement of unemployment rates reversed and shot up far beyond the level it had reached in the wake of the stock market crash hitting 11.6 percent in November 1930 (Wikipedia, 2011; Sowell, 2008).

January 21, 2010, a day including the overruling of two important precedents about the First Amendment rights of corporations, a bitterly divided Supreme Court ruled ("Citizens United ruling") that the government may not ban political spending by corporations in candidate elections. President Obama called it "a major victory for big oil, Wall Street banks, health insurance companies and the other powerful interests that marshal their power every day in Washington to drown out the voices of everyday Americans" (Liptak 2010). The Supreme Court ruling allows amounts of corporate spending that overwhelms the campaign spending capabilities of moderates and liberals—see Jane Mayer's (2011) report on North Carolina, "State for Sale" for detailed case studies on this conclusion.

Assuming that it is going to be Obama versus Romney in 2012, this last step in support of incompetency training permits corporate spending to tip-the-balance in North Carolina in electing Mitt Romney—President Obama won NC in the 2008 election and must win the State in 2012 to win re-election. The "Occupy Wall Street" protests support a momentary pause in forecasting that Obama's 2012 defeat is done deal. "With little organization and a reliance on Facebook, Twitter and Google groups to share methods, the "Occupy Wall Street" campaign, as the prototype in New York is called, has clearly tapped into a deep vein of anger, experts in social movements said, bringing longtime crusaders against globalization and professional anarchists together with younger people

frustrated by poor job prospects" (Eckholm and Williams, 2011). Is grass-roots social marketing capable of overcoming 2010 U.S. Supreme Court supported incompetency training?

ACTIONS USEFUL FOR OVERCOMING INCOMPETENCY TRAINING

The study of incompetency training provides several insights that serve as propositions in creating useful theory of the processes causing such training to be successful and in designing-testing effective antidotes to counter. What becomes clear from such study is that incompetency training occurs in individual/firm and national/global contexts. Individuals, firms, governments, and national cultures can and do engage consciously and unconsciously in incompetency training.

Becoming aware of exposure to incompetency training requires training and a deep understanding of the conditions and contexts of how the mind performs badly and well rather than claiming that humans are irrational. Gigerenzer is correct in writing, "The key role of representation in thinking is often downplayed because of an ideal of rationality that dictates that whenever two statements are mathematically or logically the same, representing them in different forms should not matter. Evidence that it does matter is regarded as a sign of human irrationality. This view ignores the fact that finding a good representation is an indispensable part of problem solving and that playing with different representations is a tool for creative thinking" (Gigerenzer, 2002, p. 50).

Creating effective antidotes to incompetency training likely requires deep knowledge about such training within specific contexts. Figure 2 shows four general

context of incompetency training. Identifying these general contexts is one step toward building a taxonomy of incompetency training processes. Becoming aware that incompetency training takes many forms and varies by contexts, supports the suggestion that creating, learning, and applying a multiple set of tools is necessary to disrupt such training processes and to counter the outcomes of such training.

Awareness and study of incompetency training in universities and management training programs may be a necessary (but not sufficient) step in replacing the dominant logic in many industries that self-regulation is sufficient for preventing abusive practices by firms and industries. How incompetency training works—the antecedents to and the nitty-gritty details of incompetency training processes in the SEC—remain unknown. Little to nothing is known about the antecedents to similar training processes at the Federal Trade Commission and additional federal and state commissions and agencies.

Incompetency trainers supporting calls for self-regulation and ending government regulation of the financial industry grow silent for a short time when the failure of such self-regulation becomes dramatic. The 2008 American-led, global, financial meltdown was one such dramatic moment. The moment provided a window for passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) that included establishing the Consumer Financial Protection Bureau.

Given the historical tendency to inaction and incompetency by federal agencies charged to regulate American industries, the CFPB needs to practice counter-incompetency training to stay free from industry control and to work effectively in achieving the objectives Congress set in enacting its creation. Counter-incompetency

training programs need to become explicit in the operations of the CFPG as well as all federal and state regulatory commissions and agencies.

Figure 7 is a somewhat messy Venn diagram showing the presence of different tools in different combinations (conjunctive recipes). Figure 7 is an attempt to emphasize that the use of one to two tools to counter incompetency training likely will be insufficient in achieving 100 per cent elimination of such training. Franklin's (1987) law applies to trying to eliminate incompetency training—"Nothing is certain but death and taxes." A reminder that in all human conduct, uncertainty is prevalent as the result of human and technical errors, limited knowledge, unpredictability, deception, and other causes (Gigerenzer, 2002).

Figure 7 here.

Figure 7 serves to illustrate that including causal chains of counter-measures is more likely to be effective in preventing grave outcomes caused by incompetency training. Thus, even though problem-solvers and executives may never eliminate incompetency training, the dream may be achievable that counter-training will dramatically decrease the tragic outcomes that follow from incompetency training.

Note that the tools in Figure 2 appear in a specific context. This follows from Herbert Simon's (1990, p. 1) most famous analogy, "Human rational behavior… is shaped by a scissors whose two blades are the structure of task environments [i.e., the context] and the computational capabilities of the actor."

Consider the following story on the relevancy of contexts. "The U.C.L.A. basketball coach John Wooden, at the first basketball meeting each season, even had his players practice putting their socks on. He demonstrated just how to do it: he carefully rolled each sock over his toes, up his foot, around the heel, and pulled it up snug, then went back over his toes and smoothed out the material along the sock's length, making sure there were no wrinkles or creases. He had two purposes in doing this. First, wrinkles cause blisters. Blisters cost games. Second, he wanted his players to learn how crucial seemingly trivial details could be. 'Details create success' was the creed of a coach who won ten N.C.A.A. men's basketball championships" (Gawande, 2011, p. 49).

CALL FOR PAPERS

Incompetency training happens. The pervasive presence of learning-by-telling and the scarce implementations of learning-by-doing support this perspective. The American-led Vietnam War, the Second Iraq War, the most recent financial global crisis, instruction focusing on market shares versus profits, calls for industry self-regulation, the loss of 20 trillion dollars relating to the nonfunctioning federal regulatory commissions, the suicides by patients following misinformation about false positive HIV test results, the Tenerife disaster, the continuing incompetency of management audits by state auditing agencies of their states' tourism marketing programs, viewing gays as medically ill and a threat to military unit cohesion, and tort reform legislation are example outcomes of conscious and unconscious incompetency training.

The usefulness of theory in sense-making is likely to increase by purposively studying the role of incompetency training in causing undesirable outcomes. Weick's

(1996, 2001, 2007) application of the Mann Gulch fire disaster to organizational research and management education describes how seemingly competency training can sometimes result in incompetent outcomes when the learner is present in specific contexts.

Weick (1997) offers several recommendations for "dropping one's tools" to achieve teaching excellence. These include drop your confused complexity; drop your fixations; drop your undifferentiated categories; drop your focus on decision making; drop your tactics that muddy learning about dropping; and drop your preoccupation with efficiency.

The last one is most relevant here. Weick (1997) calls for dropping preoccupation with efficiency; that is, focusing on successes, simplify assumptions, refining strategies, pouring resources into planning and anticipation, and deferring to authorities at higher levels in the organizational hierarchy. "These ways of acting are thought to produce good decisions; however, they also often allow unexpected events to accumulate unnoticed until those events become so complex that they are tough to deal with and have widespread unintended effects" (Weick, 1997, p. 14).

Becoming "too big to fail" (TBTF) as an outcome of the 2008 financial meltdown is a large-scale example of what can result from focusing on efficiency and successes and deferring to authorities at higher levels (see FCIC, 2011; Lewis, 2010). Consider the following assessment of the anti-competitive outcomes and more-not-less government resulting from TBTF following the 2008 meltdown:

> The collapse of Bear Stearns [in 2008], in which creditors were protected through a takeover engineered and subsidized by the Federal Reserve Board, undoubtedly reinforced the expectation of government backing of

> the debts of major banks. The decision to let Lehman collapse temporarily shattered this expectation. However, the consequences were so cataclysmic that it led the government to move aggressively to convince financial markets that the government would not allow another major bank to fail in this manner. After Lehman's failure, Congress passed the Troubled Asset Relief Program (TARP) to funnel hundreds of billions of dollars to support banks in a period of extraordinary financial turbulence [2008]. In addition, the Federal Reserve Board lent hundreds of billions of dollars to the banks through a series of newly created special lending facilities. On top of these measures, the Fed and Treasury also took extraordinary actions to keep Citigroup and Bank of America solvent, at a time when they almost certainly would have collapsed without government support. As a result of this recent history, TBTF is now virtually official policy. (President Obama's financial reform proposal would make it official policy.) A predicted result of a formal TBTF policy is that the gap between the interest rate that smaller banks must pay to obtain deposits and otherwise borrow funds and the interest rate paid by the TBTF banks would increase, since the TBTF banks are now effectively able to borrow all their funds (not just smaller deposits) with the backing of the federal government. (Baker and McArthur, 2009)

Weick (1997) points out high reliability organizations (HROs) have a different set of priorities (cf. Weick and Sutcliffe, 2001). "They drop the traditional ways of acting and pay more attention to failures than success, avoid simplicity rather than cultivate it,

are just as sensitive to operations as they are to strategy, organize for resilience rather than anticipation, and allow decisions to migrate to experts wherever they are located. These may sound like odd ways to make good decisions, and that may be true. However, decision-making is not what HROs are worried about. Instead, they are more worried about making sense of the unexpected. In that context, their attention to failure, simplification, operations, resilience, and migrating expertise makes perfectly good sense" (Weick, 1997, p. 14).

Additional research supports the value of worrying about making sense of the unexpected. For example, Nenkov, Inman, and Hulland (2008) develop an elaboration on potential outcomes (EPO) scale and then investigate its relationships with conceptually-related traits and its association with consumer behaviors such as exercise of self-control, procrastination, compulsive buying, credit card debt, retirement investing, and healthy lifestyle. They show that consumers with high EPO levels exhibit more effective self-regulation when facing a choice and that EPO can be primed, temporarily improving self-regulation for consumers with low EPO levels. Possibly Nenkov and colleagues can convert their scale into a tool useful for increasing mindfulness and reducing the impact of incompetency training.

Weick's (1997) perspective here is a further justification for the direct study of incompetency training. Consequently, a second step is necessary following the U.S. Financial Crisis Inquiry Commission 2011 report (FCIC, 2011) to answer the question: What operational steps will work to overcome the incompetency training in the U.S. regulatory commissions and failure outcomes documented in the report? Little appears to be known about the inner-working and the operational incompetency of the SEC and

other federal commissions. The sheer act of management auditing and fault-finding reporting is insufficient frequently for generating effective remedies (Woodside and Sakai, 2003, 2009)

Have procedures changed at the SEC and the Federal Reserve Board since the 2008 financial meltdown? Who knows? What changes are useful for shrinking incompetency training at these governmental agencies? How can we test the efficacy of the suggested changes? What do the results of such tests indicate? These questions are useful to address in responding to this call for papers.

Research and applications focusing on developmental management is necessary. Developmental management is presented here as a new concept and potential sub-discipline that would include field studies of theory, practice, and remedies of incompetency training and failures by individuals, organizations, and governments. Developmental management would focus in particular on testing theory in field experiments on the effectiveness of alternative protocols to replace incompetency training via implementable counter incompetency training designed to achieve this objective.

Developmental management as a field of research would complement and extend the work of behavioral and developmental economics (e.g., Ariely, Gneezy, Loewenstein, and Mazar, 2009; Banerjee and Duflo, 2009; Duflo and Saez, 2002) and action research (e.g., Brydon-Miller, Greenwood, and Maquire, 2003; Reason and Bradbury, 2000; Whyte, 1991). Similar to behavioral economics, developmental management would embrace true and quasi-experiments in field settings. Similar to action research, developmental management would embrace testing proposals for practicing alternative methods of identifying incompetency training and testing the effectiveness of alternative remedies of such training. Giving a name to the idea and establishing its own home (e.g.,

devoting a new journal and new professional association to this subfield) may be necessary steps toward nurturing the attention necessary for overcoming incompetency training.

References

Advertising Age (1983). Study: Majority of 25 leaders in 1923 still on top—"old standbys: hold their own. September 19, 32.

Anterasian, C., Graham J.L., and Money R.B. (1996). Are U.S. Managers Superstitious about Market Share? Sloan Management Review, 37(4): 67 – 77.

Adragh, A. (2010).WikiLeaks, you, and me. Retrieved on September 30, 2011 at: http://arjunaardagh.wordpress.com/2010/12/03/wikileaks-you-and-me/.

Ariely, D., Gneezy, U., Loewenstein, G. F., and Mazar, N. (2009). Large stakes and big mistakes. *Review of Economic Studies*, *76*(2), 451-469. doi:10.1111/j.1467-937X.2009.00534.x

Armstrong, J. S. (1977). Social Irresponsibility in Management. Journal of Business Research, 5, 185-213.

Armstrong, J.S., and Brodie, R. J. (1994). Effects of Portfolio Planning Methods on Decision Making: Experimental Results. International Journal of Research in Marketing, 11, 73-84.

Armstrong, J.S., and Collopy, F. (1996). Competitor Orientation: Effects of Objectives and Information of Managerial Decisions and Profitability. Journal of Marketing Research, 33, 188-199.

Armstrong, J.S., and Green, K. C. (2007). Competitor-oriented Objectives: The Myth of Market Share, International Journal of Business, 12, 115-134.

Baker, T. (2005). The Medical Malpractice Myth. Chicago: University of Chicago Press.

Baker, D., and McArthur, T. (2009). The value of being too big to fail. Issue Brief. Washington, DC: Center for Economic and Policy Research. Retrieved on October 7, 2011 at: http://www.cepr.net/documents/publications/too-big-to-fail-2009-09.pdf

Banerjee, A. V., and Duflo, E. (2009). The experimental approach to development economics. *Annual Review of Economics*, *1*(1), 151-178. doi:10.1146/annurev.economics.050708.143235

Ball, R. (1995). The Theory of Stock Market Efficiency: Accomplishments and Limitations. Journal of Applied Corporate Finance, 8, 4-18.

Bénabou, R. (2009). Groupthink: The delusions of organizations and markets. Working paper. Princeton, NJ: Princeton University. NBER Working Paper No. 14764 Issued in March 2009.

Bertrand, M., and Mullainathan, S. (2002). Are Emily and Jane more employable than Lakisha and Jamal? A field experiment on labor market discrimination. American Economic Review 94: 991-1013.

Bertrand, M., Chugh, D., and Mullainathan, S. (2005). Implicit Discrimination. The American Economic Review, 95 (2), Papers and Proceedings of the One Hundred Seventeenth Annual Meeting of the American Economic Association, Philadelphia, PA, (May), 94-98.

Blix, H. (2010). "Iraq inquiry: Former UN inspector Blix says war illegal." At http://www.bbc.co.uk/news/uk-politics-10770239.

Borch, III, F. L. (2010). The history of "Don't Ask, Don't Tell" in the Army: how we got to it and why it is what it is. Military Law Review-litigation-essentials.lexisnexis.com. Retrieved on October 8, 2011 at http://dont.stanford.edu/commentary/History_of_Dont_Ask_Dont_Tell.pdf.

Brydon-Miller, M. Greenwood, D., and Maquire, P. (2003). Why action research: Action Research, 1, 9-28. Available at: http://www.civitas.edu.pl/pub/nasza_uczelnia/projekty_badawcze/Taylor/Brydon-Miller.pdf.

Bush, G. W. (2003). "Intelligence gathered by this and other governments…" at http://whatreallyhappened.com/WRHARTICLES/WMDlies.html.

Buzzell R.D., Gale B.T., and Sultan, R.G.M. (1975). Market Share: A Key to Profitability. Harvard Business Review 53(1): 97 – 106.

Bush, G. W. (2005). "See in my line of work…" at http://whatreallyhappened.com/IMAGES/georgebushpropaganda.wma.

Capon, N., Farley, J.U., and Hulbert, J.M (1987). Corporate Strategic Planning. Columbia University Press.

Copernicus, N. (1543), De revolutionibus orbium coelestium. Nuremberg, private printing (400 copies).

Catholic Encyclopedia (2011). Nicolaus Copernicus. Retrieved at http://www.newadvent.org/cathen/04352b.htm.

Chase, V. M., Hertwig, R., and Gigerenzer, G. (1998). Visions of rationality. Trends in Cognitive Science, 2, 206-214.

Cosier, R. A. (1978). The effects of three potential aids for making strategic decisions on prediction accuracy. Organizational Behavior and Human Performance, 22, 295-306.

Dewey, J. (1916/2011). Democracy and Education. New York: Simon and Brown.

Duflo, E., and Saez, E. (2002). Participation and investment decisions in a retirement plan: the influence of colleagues' choices. Journal of Public Economics 85 (2002) 121–148.

Eckhold, E., and Williams, T. (2011). Anti-Wall Street protests spreading to cities large and small. New York Times, October 6. Retrieved on October 8, 2011 at http://www.nytimes.com/2011/10/04/us/anti-wall-street-protests-spread-to-other-cities.html.

Eviatar, D. (2009). Tort Reform Unlikely to Cut Health Care Costs. The Washington Independent, (August 19). Retrieved on September 24, 2011 at http://washingtonindependent.com/55535/tort-reform-unlikely-to-cut-health-care-costs.

Fama, E.G. (1965). The behavior of stock market prices. Journal of Business, 38, 34-105.

FCIC (2011). Financial Crisis Inquiry Commission Releases Report on the Causes of the Financial Crisis. http://fcic-static.law.stanford.edu/cdn_media/fcic-news/2011-0127-fcic-releases-report.pdf. Retrieved on September 24, 2011.

Fox, J (2009). The Myth of the Rational Market. New York: HarperBusiness.

Franklin, B. (1987). Writings. New York: Library of America.

Galdwell, M. (2005). Blink: The Power of Thinking without Thinking. New York: Little, Brown.

Gawande, A. (2011). Personal best. The New Yorker, October 3, 44-53.

Gendar, A. (October 31, 2009). "Bernie Madoff baffled by SEC blunders; compares agency's bumbling actions to Lt. Colombo". New York: Nydailynews.com. http://www.nydailynews.com/news/ny_crime/2009/10/31/2009-10-31_bernie_baffled_by_sec_blunders.html#ixzz0Vaymp8JU. Retrieved September 23, 2011.

Gigerenzer, G. (2002). Reckoning with risk. New York: Penguin.

Gigerenzer, G. (2007). Gut feelings: the intelligence of the unconscious. New York: Viking.

Gigerenzer, G., Hoffrage, U., and Ebert, A. (1998). AIDs counseling for low-risk clients, AIDS Care, 10, 197-211.

Gigerenzer, G., Hofffrage, U., and Kleinbölting, H. (1991). Probabilistic mental models: a Brunswikian theory of confidence. Psychological Review, 98, 506-528.

Golder, P. N. (2000). Historical method in marketing research with new evidence on long-term market share stability. Journal of Marketing Research. 37, 156-172.

Green, K.C. (2002). Forecasting decisions in conflict situations: a comparison of game theory, role-playing, and unaided judgment. International Journal of Forecasting, 18, 321–344.

Griffith, D. E., and Rust, R.T. (1997). The price of competitiveness in competitive pricing. Journal of the Academy of Marketing Science, 25 109–116.

Hotchkiss, G.B., and Franken, R.B. (1923). The leadership of advertised brands. Garden City, NY: Doubleday, Page & Company.

Hoffrage, U., and Gigerenzer, G. (1998). Using natural frequencies to improve diagnostic inferences. Academic Medicine, 73, 538-540.

Hofstede, G. (1991). Culture and organizations: software of the mind. London: McGraw-Hill.

Hofstede, G. (2001). Culture's consequences. Revised ed. Beverly Hills, CA: Sage.

Janis, I. L. 1972, Victims of Groupthink, Boston, Houghton-Mifflin.

Janis, I. L. 1982, Groupthink, Boston, Houghton-Mifflin.

Johnson, G., and Scholes, K. (2002). Exploring Corporate Strategy: Text and Cases, 6th Ed. London: Financial Times-Prentice Hall.

Kalra, A., and Soberman, D.A. (2008). The curse of competitiveness: How Advice from Experienced Colleagues and training can hurt marketing profitability. Journal of Marketing, 72, 32-47.

Kellermanns, F. W., Walter, J., Floyd, S.W., Lechner, C., and Shaw, J.C. (2011). To agree or not to agree? A meta-analytical review of strategic consensus and organizational performance Journal of Business Research, 64, 126-133.

Kerr, N., and MacCoun, R. J. (1996). Bias in judgment: Comparing Individuals and Groups. Psychological Review, 103, 687-719.

Kesler L. R. (2010). Serving with integrity: the rationale for the repeal of "Don't Ask, Don't Tell" and its ban on acknowledged homosexuals in the armed forces, 203 MIL. L. REV. 284 (2010).

Kuhn, T. (1957). The Copernican Revolution. Cambridge, Massachusetts, Harvard University Press.

Lewis, M. (2010). The big short. New York: Norton.

Lieberman, M.B. (1987). The Learning Curve, Diffusion, and Competitive Strategy. Strategic Management Journal, 8, 441 – 452.

Liptak, A. (2010). Justices, 504 reject corporate campaign spending limits. New York Times, January 21. Retrieved on October 8, 2011at http://www.nytimes.com/2010/01/22/us/politics/22scotus.html.

Lynch, M. P. (2008). Don't Ask, Don't Tell Revisited: Debunking the Unit-Cohesion Rationale for the Continuing Exclusion of Gays from the Military. University of Louisville Law Review, 47, 391-408.

Markopolos, H. (2011). No One Would Listen. New York: Wiley.

Marshall, R. (2011). Comments on Woodside's editorial. October 5.

Mayer, J. (2011). State for sale. The New Yorker, October 10, 90-103.

Nader, R. (2004). The Public Deserves to Hear the Facts on Tort Reform. CommonDreams.org, July 12. (Retrieved September 24, 2011.)

Nenkov, G. Y., Inman, J. J., and Hulland, J. (2008). Considering the future: the conceptualization and measurement of elaboration of potential outcomes. Journal of Consumer Research, 35, 126-141.

Northcraft, G. B., and Neale, M.A. (1987). Experts, amateurs, and real estate: an anchoring-and-adjustment perspective on property pricing decisions. Organizational Behavior and Human Decision Processes, 39, 84-97.

Park, W. (1990). A review of research on groupthink. Journal of Behavioral Decision Making, 3, 229-245.

Porter, M.E. (1980). Competitive Strategy: Techniques for Analyzing Industries and Competitors. New York: The Free Press.

Ptolemy, C. (150/152). The Almagest: I-V, in Great Books of the Western World, vol. 15, Encyclopedia Britannica, 1952, pp.5-7, 14-24.

Ramos-Rodríguez, A-R, and Ruíz-Navarro, J. (2004). Changes in the Intellectual Structure of Strategic Management Research: A bibliometric Study of the *Strategic Management Journal,* 1980-2000. Strategic Management Journal, 25(10), 981 –1004.

Reason, P., and Bradbury, H. (Ed.) (2000). Handbook of action research – participate inquiry and practice. Thousand Oaks, CA: Sage.

Schank, R. C. (1995). Tell Me a Story: Narrative and Intelligence, Chicago: Northwestern University Press.

Schank, R. C. (2011). Teaching Minds: How Cognitive Science Can Save Our Schools. New York: Teachers College Press.

Schwartz, N. Hippler, H.-J., Deutsch, B., and Strack, F. (1985). Response categories: Effects on behavioral reports and comparative judgments. Public Opinion Quarterly, 49, 388-395.

Schweiger, D.M., Sandberg, W.R., and Ragan, J.R. (1986). Group approaches for improving strategic decision making: a comparative analysis of dialectical inquiry, devil's advocacy, and consensus. Acad Manage J, 29 (1), 51–71.

Shadish, W. R., Cook, T.D., and Campbell, D.T. (20010). Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Boston: Houghton Mifflin.

Saladoff, S. (Director) (2011). Hot Coffee. New York: DOCUDRAMA.

Schwenk, C.R. (1990). Effects of devil's advocacy and dialectical inquiry on decision making: A meta-analysis. Organizational Behavior and Human Decision Processes, 47, 1990, 161-176.

Simon, H.A. (1990). Invariants of human behavior. Annu. Rev. Psychol. 1, 1–19.

Slovic, P., Monahan, J., and MacGregor, D. G. (2000). Violence risk assessment and risk communication: The effects of using actual cases, providing instruction, and employing probability versus frequency formats. Law and Human Behavior, 4, 271-296.

Sobel, D. (2011). A more perfect heaven: how Copernicus revolutionized the cosmos. New York: Walker.

Sowell, T. (2011). Economics: facts and fallacies. New York: Basic Books.

Spanier, N., Woodside, A. G., and Marshall, R. (2011). Does Training about the Incompetent Implications of Product Portfolio Methods Eliminate Their Impact in Decision-Making? Working Paper. Boston College, Carroll School of Management, Department of Marketing, 40 pages.

Toomer, G. J. (1998). Ptolemy's Almagest. Princeton, NJ: Princeton University Press.

Toplin, R. B. (2006). Radical Conservatism: The Right's Political Religion. Lawrence, KS: University Press of Kansas.

Toplin, R. B. (2008). Blame Ronald Reagan for Our Current Economic Crisis. George Mason University's History News Network, September 8. Retrieved on September 25, 2011 at http://hnn.us/articles/53527.html.

Weems, R. (2000). Listening For God: A Ministers Journey through Silence and Doubt. New York: Touchstone.

Weick, K. E. (1996). Drop your tools: An allegory for organizational studies. Administrative Science Quarterly, 41, 301-313.

Weick, K. E. (2001). Tool retention and fatalities in wildland fire settings: Conceptualizing the naturalistic. In E. Salas and G. Klein (Eds.), Linking expertise and naturalistic decision making (pp. 321-336). Mahwah, NJ: Lawrence Erlbaum.

Weick, K.E. (2007). Drop your tools: On reconfiguring management education. Journal of Management Education, 31, 5-16.

Weick, K. E., and Sutcliffe, K. M. (2001). Managing the unexpected. San Francisco: Jossey-Bass.

Whyte, W. F. (Ed.) (1991). Participatory action research. Thousand Oaks, CA: Sage Focus editions, 123.

Wikipedia (2011). http://en.wikipedia.org/wiki/Bernard_Madoff. Retrieved September 23, 2011

Wilson, T. D. (2002). Strangers to ourselves: discovering the adaptive unconscious. Cambridge, MA: Belknap Press of Harvard University Press.

Woodside, A.G. (2009). Key Success and Failure Paths in Fashion Marketing Strategies, International Journal of Global Fashion Marketing, 1, 1-8.

Woodside, A.G., Hsu, S-Y., and Marshall, R. (2011). General theory of cultures' consequences on international tourism behavior. Journal of Business Research, 64, 785-799.

Woodside, A. G., and Sakai, M. Y. (2003). Metaevaluation: Assessing alternative methods of performing evaluations and audits of planned and implemented marketing strategies. Evaluating marketing actions and outcomes, Vol. 12 in Advances in Business Marketing & Purchasing. Amsterdam: Elsevier.

Woodside, A. G., and Sakai, M. Y. (2009). Analyzing performance audit reports of destination management organizations and outcomes. Journal of Travel & Tourism Marketing, 26, 303-328.

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

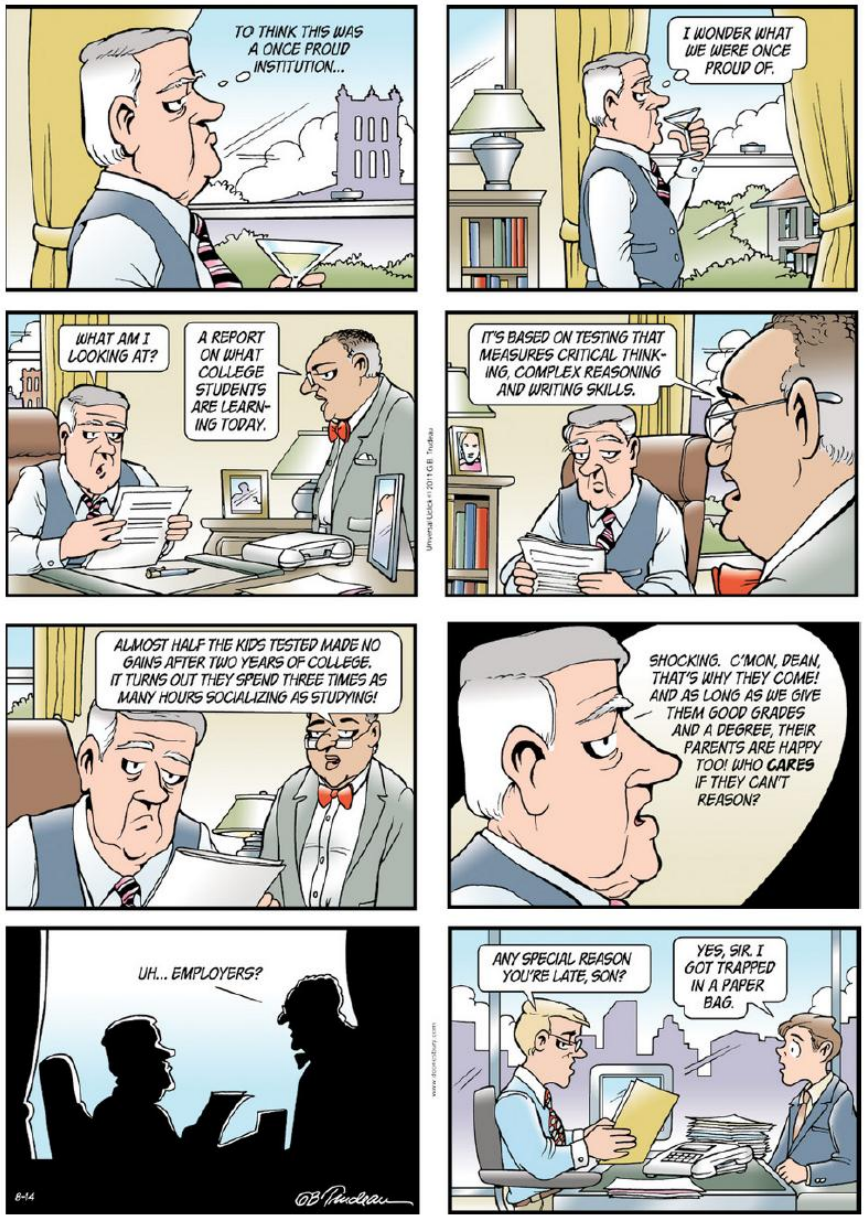


Figure 1. Incompetency Training Story in Doonesbury

Source: //www.doonesbury/strip/archive/2011/08/14, reprinted by permission of Universal Uclick.

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

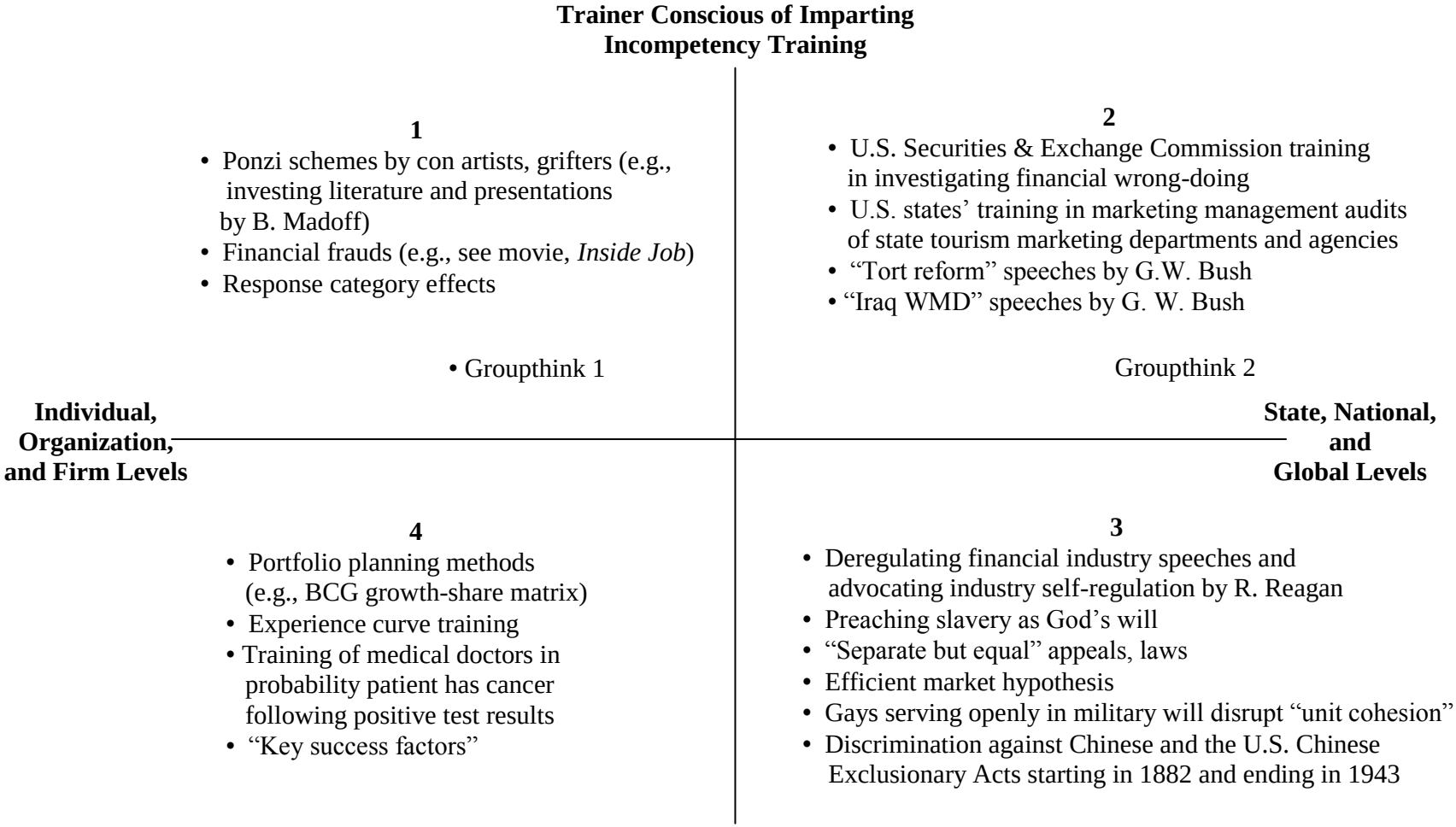


Figure 2
Incompetency Training Paradigm and Examples

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

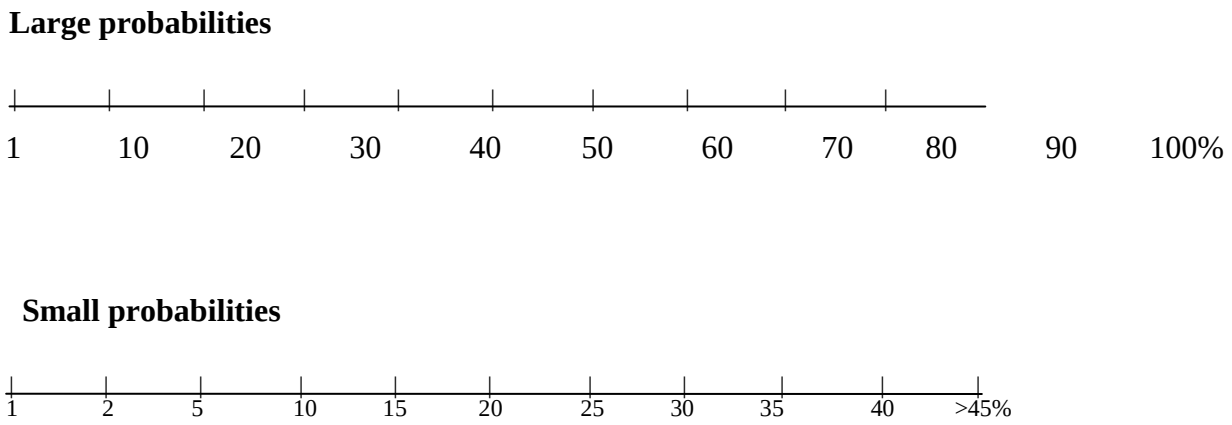


Figure 3
What is the probability that the patient will harm someone?
The two response scales show different categories for probabilities.
Source: Slovic et al. (2000).

Post-print version of an article published in Journal of Business Research 65(3): 279-293 (2012). doi: 10.1016/j.jbusres.2011.10.025

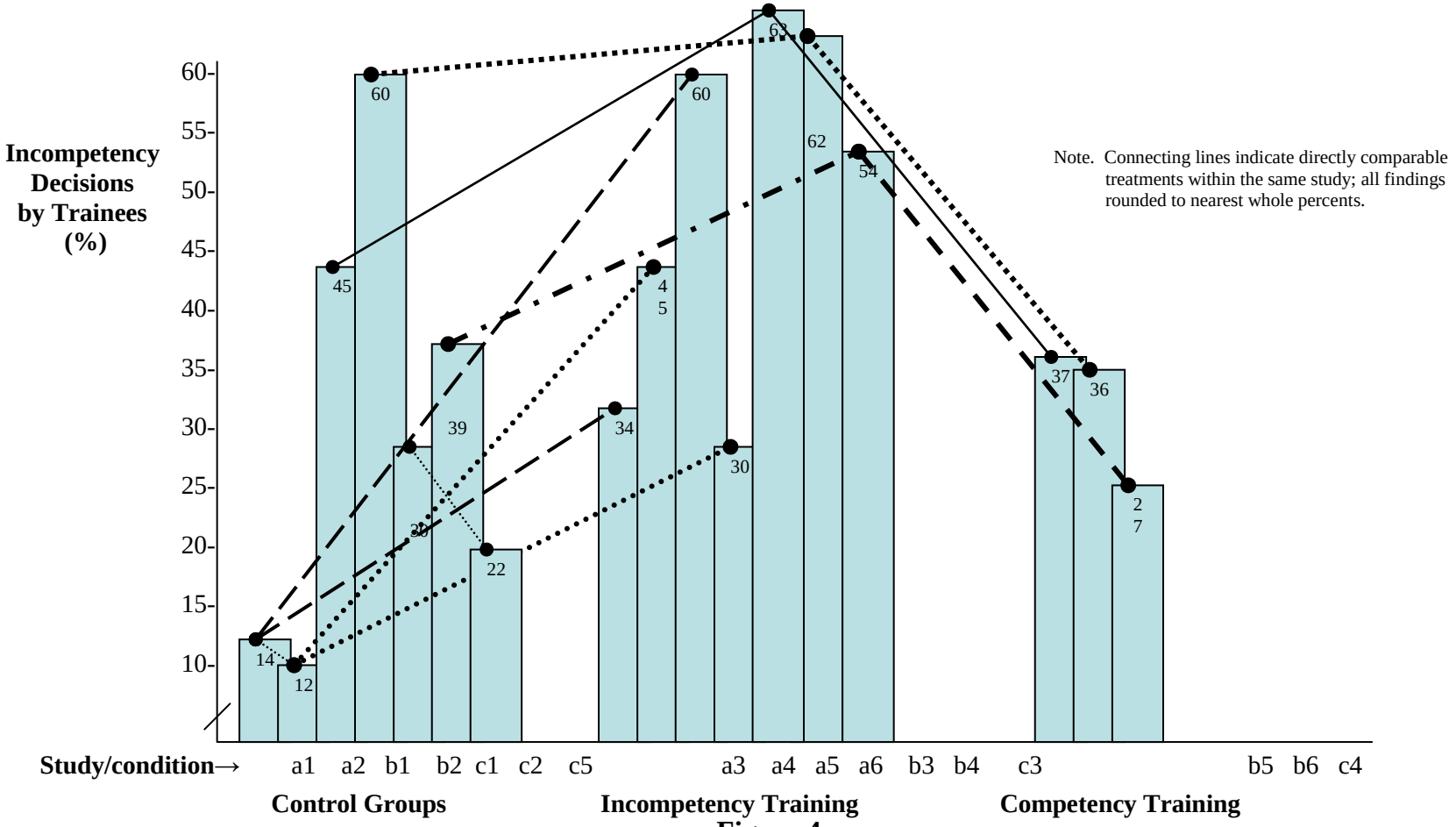


Figure 4

Impacts on Incompetency by Incompetency and Competency Training

Key. A&C = Armstrong & Collopy, 1996; A&B = Armstrong & Brodie, 1994; SWM = Spanier, Woodside, and Marshall, 2001.
a1 = A&C, no information about competitor, 5 years time horizon; a2 = A&C, no information about competitor, 20 year time horizon; a3 = A&C, information on ability to harm competitor, 5 year time horizon; a4 = information on ability to harm competitor, 20 year time horizon; a5= A&C, information on ability to beat competitor, 5 year time horizon; a6 = A&C, information on ability to beat competitor, 20 year time horizon; b1 = A&B, no competitor information given; b2 = A&B, both BCG and NPV information given middle-management subjects; A&B, b3 = A&B, BCG information given; b4 = BCG information given, middle-management subjects; b5 = A&B, NPV information given; b6 = NPV information given, middle-management subjects; c1 = SWM, no BCG, no competency training, focal firm with 49.1% market share; c2 = SWM = BCG & competency training, focal firm with 56% market share; c3 = SWM, BCG training, focal firm with 56% market share; c4 = SWM, competency training; focal firm with 56% market share; c5 = SWM, no BCG, no competency training, no competitor share directly mentioned; focal firm with a 49.1% market share.

Predicting Breast Cancer from a Positive Mammogram Test

- To facilitate early detection of breast cancer, starting at a particular age, women are encouraged to participate at regular intervals in routine screening, even though they have no obvious symptoms. The following information is available about asymptomatic (i.e., showing no symptoms of a disease) women aged 40 to 50 who participate in mammography screening in a geographic region:
- The probability that one of these women has breast cancer is 0.8 percent in the geographic region. If a woman has breast cancer, the probability is 90 percent that she will have a positive mammogram. If a woman does not have breast cancer, the probability is 7 percent that she will still have a positive mammogram. What is the probability that she actually has breast cancer?
- Your answer: _____ percent

Predicting Colorectal Cancer from a Positive Hemoccult Test

- To diagnose colorectal cancer, the hemoccult test—among others—is conducted to detect occult blood in the stool. The hemoccult test is also known as FOBT, or fecal occult blood test. This test is used from a particular age on, but also in routine screening for early detection of colorectal cancer. Imagine you conduct a screening using the hemmocult test in a certain geographic region. For symptom-free people over 50 years old who participate in screenings using the hemoccult test, the following information is available for this region:
- The probability that one of these people has colorectal cancer is 0.3 percent. If a person has colorectal cancer, the probability is 50 percent that he will have a positive hemoccult test. If a person does not have colorectal cancer, the probability is 3 percent that he will still have a positive hemoccult est. Image a person (over age 50, no symptoms who has a positive test in your screening. What is the probability that this person actually has colorectal cancer?
- Your answer: _____ percent

Figure 5
Using Conditional Probabilities in Presentation Formats for Achieving Highly-Successful Incompetency Training
Source: from pages in Hoffrage and Gigerenzer (1998).

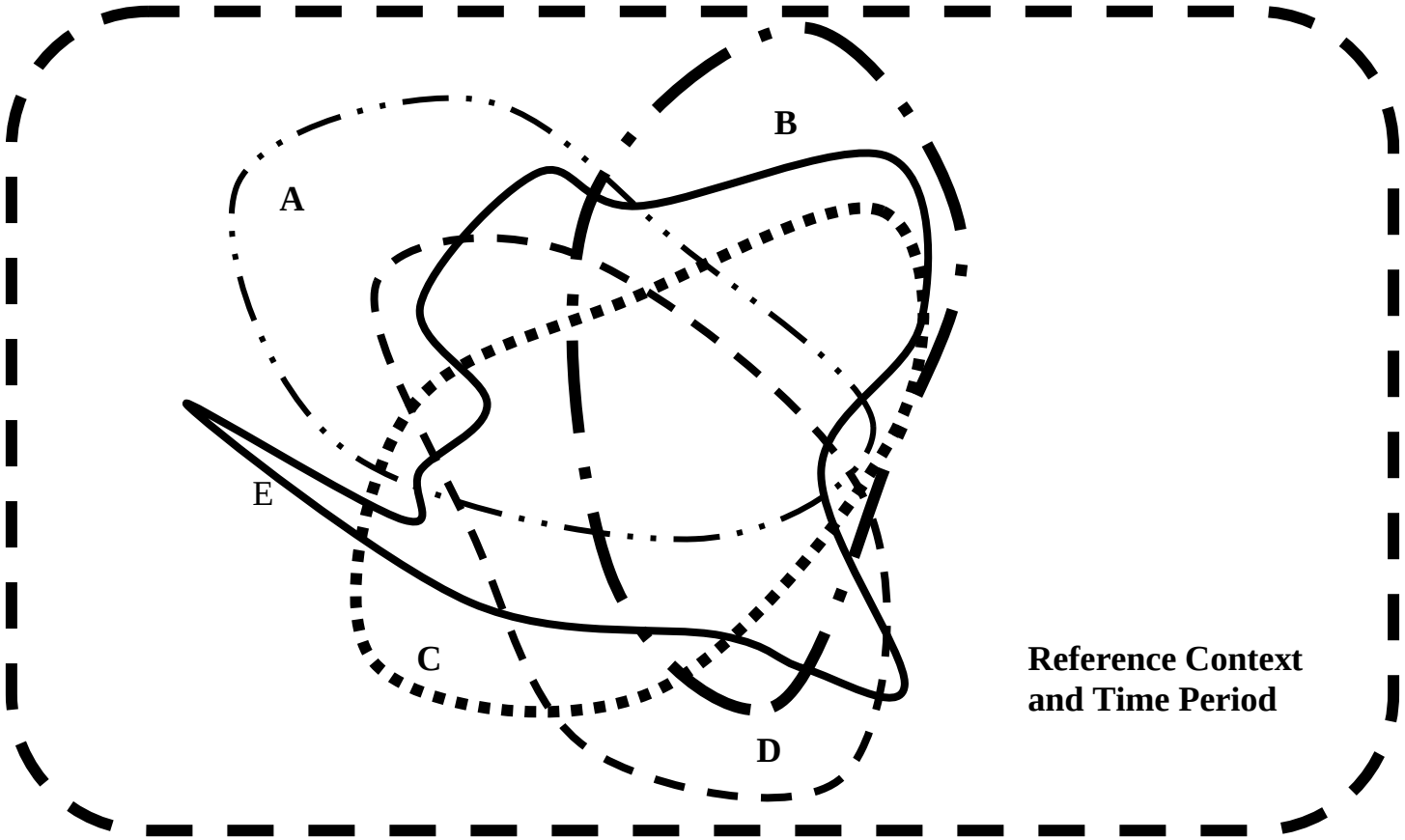
Predicting Breast Cancer from a Positive Mammogram Test

- To facilitate early detection of breast cancer, starting at a particular age, women are encouraged to participate at regular intervals in routine screening, even though they have no obvious symptoms. The following information is available about asymptomatic (i.e., showing no symptoms of a disease) women aged 40 to 50 who participate in mammography screening in a geographic region:
- Eight out of every 1,000 women have breast cancer. Of these 8 women with breast cancer, 7 will have a positive mammogram. Of the remaining 992 women who don't have breast cancer, some 70 will still have a positive mammogram. Imagine a sample of women who have positive mammograms in screening. How many of these women actually have breast cancer?
- Your answer: _____ out of _____.

Predicting Colorectal Cancer from a Positive Hemoccult Test

- To diagnose colorectal cancer, the hemoccult test—among others—is conducted to detect occult blood in the stool. The hemoccult test is also known as FOBT, or fecal occult blood test. This test is used from a particular age on, but also in routine screening for early detection of colorectal cancer. Imagine you conduct a screening using the hemmocult test in a certain geographic region. For symptom-free people over 50 years old who participate in screenings using the hemoccult test, the following information is available for this region:
- Thirty out of every 10,000 people have colorectal cancer. Of these 30 people with colorectal cancer, 15 will have a positive hemoccult test. Of the remaining 9,970 people without colorectal cancer, 300 will still have a positive hemoccult test. Imagine a sample of people (over age 50, no symptoms) who have positive hemoccult tests in your screening. How many of these people actually have colorectal cancel?
- Your answer: _____ out of _____.

Figure 6
Using Natural Frequencies in Presentation Formats for Achieving Highly-Successful Incompetency Training
Source: from pages in Hoffrage and Gigerenzer (1998).



- Using natural frequencies and not probabilities to forecast events; use visual representations and not words alone
- Using independent investigative reporting; historical marketing research; do not rely on second-hand reports or self-reports only
- Using open-ended responses; avoid category effects in formatting answers to questions
- Adopt devil's advocate and role-playing in meetings; do not rely on leader's views and traditional meeting procedures alone
- Practice deciding/doing with a coach; do not make the decision alone or with subordinates only

Figure 7
Counter-Incompetency Training Tools and Conjunctive Recipes of Using Two to Five Tools in the Same Context