THE DENIAL OF RELEVANCE: BIOGRAPHY OF A QUEST(ION)
AMIDST THE MIN(D)FIELDS—GROPING AND STUMBLING
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Early research on just why it might be the case that “the mass of men lead lives of quiet desperation” suggested that denial of relevance was a significant factor. Asking why denial of relevance would be significant and how it might be resolved began to raise issues of the very nature of questions. Pursuing the nature of questions, in light of denial of relevance and Thoreau’s “quiet desperation” provoked a journey of modeling questions and constructing a biography of the initial question of this research and its evolution. Engaging literature from philosophy, neuroscience, and retrieval then combined with deep interviews of successful lawyers to render a thick, biographical model of questioning.
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I am immensely grateful to so many mentors who have influenced my life, as we “stand on the shoulders of giants,” “get by with a little help from our friends,” and benefit when “it takes a village.” This appreciation is consistent with the major themes in this paper, including that what we know or think we know is often not nearly as certain and conclusive as we may wish to believe, that our knowledge and understanding seem to best favor a holistic and interdisciplinary working-out of ideas and analyses, that these realities occasion much paradox to be found on virtually any topic and in general life, and that we therefore should seek out and reach out for personal, helpful, intelligent, and discerning mentors and guides during the entire course of an individual’s lifetime. Whether by way of deliberate seeking, gracious providence, or blind luck, my stumbling and groping granted the great gift of my life: phenomenal people crossing my life’s path, aptly described as my family, friends, and teachers. First, I am most grateful for my immediate family and particularly my wonderfully spirited parents, the small-town preacher and public-school teacher, both of whom have dedicated their lives to teaching, mentoring, and giving so much to others. Second only to my Dad, my gifted Irish preacher in New York City, the late Dr. R. Maurice Boyd, provided an almost overwhelming wave in his spiritual and literary insights for my continuing education. Third, the litany of all the great teachers, suffice it here to list those on my committee who more directly dedicated themselves to this particular consummation: committee chair Brian Clark O’Connor who quite personally and relationally chaired this 54th dissertation committee, Jim Duban who energetically advised in many endeavors, and Jodi L. Kearns who contributed valuable inputs—these amazing teachers reflect the “something more” worth living and dying for, and thankfully are “paid to think” and wrestle with ideas in their commitment to the life of the mind.
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CHAPTER I
INTRODUCTION AND RESEARCH QUESTION

_The mass of men lead lives of quiet desperation._

H.D. Thoreau (1854)

*Where is the Life we have lost in living?*
*Where is the wisdom we have lost in knowledge?*
*Where is the knowledge we have lost in information?*

T.S. Eliot (1934)

One sometimes imagines that most of life’s seemingly inexhaustible questions may be immediately if not adequately resolved in a static and linear fashion, from a precise question to a directly relevant answer, squarely on point. It typically does not take much further excavation to realize, however, that many of life’s ponderous questions place more intense and deeper demands upon the mind which actively seeks out life’s answers and even one which more nonchalantly or haphazardly slides, glides, stumbles, and struggles through a morass of encountered information, whether in direct experience or in the guise of subconscious influences.

Indeed, such is the case herein. The genesis of the idea, which has gradually transformed over the course of decades if not my entire life, involved the Thoreauvian notion of “quiet desperation,” particularly in the professional mindset, and most specifically for lawyers. But as often occurs—and indeed must transpire if an inquiry is to be taken seriously and deeply—that initial idea for the research question has inevitably and inexorably evolved, morphing as it were through the nuanced development of the question itself. Hence, this analysis of the denial of relevance in the face of quiet desperation is deeply entwined with tracing a biography of questions, how we live with them, how they enmesh themselves into our brains and thus our
lives, how we deal with and address them, and ultimately the theoretical frameworks of how and what influences and guides us in further developing them. In doing so, we may better understand our questions, our life choices, and ourselves, bringing information “to the point of use” to aid its dissemination and improve accomplishment or at least comprehension of our desires and dreams.

The literature suggests that information seeking behaviors become more of a groping than hunting approach when dealing with broad, high-level decision-making on major (and often abstract) life choices. Groping as used here is contrasted with a more directed or focused hunting, where in the former instance an information user feels in the dark or senses a fuzzy inclination toward an information need (O’Connor et al., 2003, 100, 146). Information from today’s culture suggests that dissatisfaction with jobs, finances, and life in general, if not outright anxiety, exists which may impact those behaviors. Information from philosophy and literature may help to better identify and address certain issues, and in combination with the academic literature, may intimate partial causes for behavioral dislocations as well as potential solutions for their resolution. Thus, we may ask, can information ultimately help information users find the way back to life?

As T.S. Eliot astutely observed, as quoted at the outset, people may be losing themselves in a morass of information and the issues to which it relates. Yeats quoted Confucius, “How am I fallen from myself?” (Boyd, 2005). Robert Bolt wrote of Sir Thomas More in a *Man for All Seasons*: “When a man makes an oath, Meg, he’s holding his own self in his own hands. Like water. And if he opens his fingers—he needn’t hope to find himself again” (Boyd, 1998, 77, 1999, 40). In addition to “Life lost,” Eliot (1934) described the inevitable scenario every information user encounters at some point in one’s life: “Footfalls echo in the memory, Down the passage which we did not take, Towards the door we never opened, into the rose-garden”
Thus, another way to pose the research question of this study may be stated: Can information be used to increase the probabilities of reaching the “rose garden” of an information need?

More than 150 years ago, H.D. Thoreau (1854/1992) similarly asserted the inexorable condition of decision makers today: “The mass of men lead lives of quiet desperation” (7). Eliot and Thoreau are not alone in this perspective. Many notable literary scholars and poets also observed this characteristic in human nature that contributes to how and whether information users satisfy essential information needs—whether of the apathy and absence of alacrity, if not melancholy and despondency—when encountering the critical points at which life decisions are made:

- Rabindranath Tagore (1998), the first Indian Nobel laureate in 1913, poetically wrote, “The song I came to sing remains unsung. I’ve spent my days stringing and unstringing my instrument.”

- Joseph Campbell (1988) quoted the last line in Sinclair Lewis’s novel, “Babbit”: “I have never done the thing that I wanted to do in all my life,” to which Campbell concluded, “That is a man who never followed his bliss.” (117).

- Robert Frost (1916) in *The Road Not Taken*, echoed the importance of the divergences encountered in life choices, “I took the one less traveled by, And that has made all the difference.” And Frost etched the epitaph on his tombstone: “I had a lover’s quarrel with the world.”

Lest one conclude these sentiments are decades or centuries old, there is very current recognition of the themes sounded by Thoreau that is being acknowledged by contemporary mainstream America. Sanneh (2009, June 22) wrote in *The New Yorker* of a possible new trend beginning to catch on:

Crawford’s book [*Shop Class as Soulcraft*] arrives just as a vague sense of dissatisfaction with the demands and rewards of the modern economy is coalescing into something like a movement. In 1998, the sociologist Richard Sennett published “The Corrosion of Character: The Personal Consequences of Work in the New Capitalism,” in which he saw soul-destroying consequences in our new work habits – endless hours spent at flexible
jobs, performing abstract tasks on computer screens. Last year, in “The Craftsman,” Sennett suggested that skilled labor could be a way to resist corporate mediocrity. The environmentalist writer Bill McKibben proposed something similar in “Deep Economy,” which condemned the ruinous effects of endless economic expansion and urged readers to live smaller, simpler, more local lives…. These ideas have crept farther toward the mainstream in the wake of the economic collapse, which inspired calls for a return to real work – a return, in other words, to activities more tangible (and, it was hoped, less perilous) than complex swaps of abstract financial products. Crawford means his book to be a philosophical manifesto for a dawning age: an ode to old-fashioned hard work, and an argument that localism can help cure our spiritual and economic woes.

Similarly, Yoshino (2009, June 2) reported that the joblessness from the recent economic downturn engendered the opportunity to be “funemployed,” viewed as both cultural narcissism and backlash against corporate America by employees feeling that there is a lost balance between work and life and that “The rat race puts blinders on you and makes time fly.” Dreher (2009, May 31) similarly wrote, “Many a white-collar man works hard but lives in a world of soul-killing abstraction, where what he does, what he feels and who he is have little to do with one another.” Quoting Crawford, Dreher continued, “The work cannot sustain him as a human being. Rather, it damages the best part of him, and it becomes imperative to partition work off from the rest of life.” Iyer (2009, June 28) wrote of his leaving a New York corporate job to live simply in a Japanese village because “I’m not sure how much outward details or accomplishments ever really make us happy deep down. The millionaires I know seem desperate to become multimillionaires and spend more time with their lawyers and bankers than with their friends (whose motivations they are no longer sure of).” Rosemary Hill is another such example, who left a $200,000+ executive position in information systems, “re-evaluated her life [and] switched gears” because her priorities changed, so now she earns about $40,000 in her second career as a nurse in a cancer center (Roberson, 2009, January 25).

The most recent data points of intense and urgent concern demonstrate the pertinent information gap(s):
Time magazine recently reports: “Lawyers are committing suicide at an alarming rate” (2014, January 20). CNN’s site inquires, “Why are lawyers killing themselves?” (Flores and Arce, 2014, January 20). Since the CNN reporting, another study states that “depression is the main trigger for suicides and lawyers are 3.6 times more likely to suffer from it” (Karabin, 2014, April 7). “According to the American Psychiatric Association and numerous other sources, depression is the most likely trigger for suicide. Lawyers, as a group, are 3.6 times more likely to suffer from depression than the average person. Of 104 occupations, lawyers were the most likely to suffer depression.” (Clarke, 2014, March 31).

“Further, according to a two-year study completed in 1997, suicide accounted for 10.8% of all deaths among lawyers in the United States and Canada and was the third leading cause of death. Of more importance was the suicide rate among lawyers, which was 69.3 suicide deaths per 100,000 individuals, as compared to 10 to 14 suicide deaths per 100,000 individuals in the general population. In short, the rate of death by suicide for lawyers was nearly six times the suicide rate in the general population” (Clarke, 2014, March 31). These reports corroborate the prior article in the *Vanderbilt Law Review* with an extensive analysis of attorneys exhibiting high levels of suicide, depression, divorce, drug and alcohol abuse. (Schiltz, 1999, p. 871).

Most recently, the *American Bar Association Journal* conveys survey results of over 6,000 lawyers, providing further corroboration of higher life dissatisfaction among lawyers at top-tier “prestige jobs” (Weiss, 2014, March 17). “These data consistently indicate that a happy life as a lawyer is much less about grades, affluence, and prestige than about finding work that is interesting, engaging, personally meaningful, and is focused on providing needed help to others,” the authors conclude. “The data therefore also indicate that the tendency of law students and young lawyers to place prestige or financial concerns before their desires to ‘make a difference’ or serve the good of others will undermine their ongoing happiness in life.”

U.S. Senator Sherrod Brown (Brown, 2014, January 29) adduces evidence in the *Wall Street Journal* blog of another “true crisis: the retirement picture for those currently age 45 to 64. Three-quarters of Americans nearing retirement have less than $27,000 in their retirement accounts and one-third do not have any sort of retirement account at all.” Further reported in the recent Yahoo Finance article, *One-third of Americans only have $1,000 saved for retirement*, “More Americans are confident about their retirement prospects for the first time in seven years, but even so, more than one-third of workers (36%) have a measly $1,000 saved for their later years, according to a new study by the Employee Benefit Research Institute” (Woodruff, 2014, March 18). Corroborating the paucity of savings, Yahoo Finance also recently quoted one senior, “I’m never going to be able to retire.” (Yahoo, 2014, February 20).

Former Director of the Office of Management and Budget, appointed by President Reagan, describes another looming financial crisis: “[W]e are heading for $30 trillion—$35 trillion national debt [forecasted for the next ten 10 years]. It would take the system
down. It would bankrupt the country. We need to stop the buildup of this debt any further and actually pay it down…. Everyone’s spending every dime they can earn and every additional dime they can borrow. We desperately need much higher productivity and investment in order to compensate for our very high wage cost and cost of living. We therefore need to curtail consumption, change the basic equation so people are required to save, especially as the baby boom (retirement) continues to gather momentum. You cannot think this economy will continue to work 10 years from now with 20 million more retirees, with all of the entitlements that need to be paid, if we don’t have a downshift in consumption. That will cause the economy to go through a period of slow growth or even recession. But we’ve been having a party for 30 years. We’ve been living beyond our means. The longer we wait to face up to the facts and the longer the politicians lie to the public and say you just need to go out to the mall and buy some more junk you don’t need, the greater is going to be the eventual day of reckoning.”


- As a result of such serious concerns, some writers question whether Americans will adapt to lower living standards. In Tyler Cowen’s (2013) *Average Is Over: Powering America Beyond the Age of the Great Stagnation*, “Cowen says it will be tougher to get ahead in the future, for three reasons familiar to anybody who’s been paying attention to the shifting fortunes of U.S. workers,” of hiring selectivity and labor costs, international competition “for jobs at all levels,” and “replace[ing] people with technology” and automation (Newman, 2013, October 29). “As uncomfortable as it may sound, there are plenty of ways for Americans to adjust to the Darwinian economy Cowen envisions. They can move to cheaper, more affordable areas and use…other Internet innovations to telecommute…. Americans will also find new ways to eliminate a lot of waste, becoming thriftier in the process.” (Newman, 2013, October 29).

These poets and writers evoke the question: What causes such “quiet desperation,” and what information may help clarify, resolve, or at least help us understand its relation to individual lives?

Having identified the information need, Thoreau then implicitly, posed his own informational model (simplify, reduce financial encumbrances, attend to meaning and purpose (e.g., spirituality)), which is consistent with what contemporary scholars in information science and behavior analysis propose as a workable solution to resolving informational behavior problems in satisfying informational needs.
Wilson (1973, 1977) contended that whatever information solves a particular problem for an individual is relevant for that person in that situation. O’Connor, Copeland, and Kearns (2003) posited that an abstract browsing approach for certain needs may occur, akin to hunting and gathering (which I recast here as groping, stumbling, staggering, shuffling), particularly in instances where an information need or question is ambiguous and/or otherwise difficult to articulate or reduce to specific terms and where the bereft information user is seemingly incapable of achieving clarity. This is particularly the case involving off-the-grid and edge-of-the-grid queries, which are less amenable to an off-the-shelf or googled answer to a strictly circumscribed question. O’Connor et al. present this scenario graphically by way of their MLO (Maron Levien O’Connor) matrix, in Appendix C and discussed herein, as a grid in which question states toward the lower-right edge risk fuzzy or unarticulated information needs. Case (2005) identified behaviors that can further impede the information-seeking process (or experience) involving cognitive dissonance and denial, thereby erecting obstacles to the resolution of information needs and gaps. Wilson (1973, 1977) proposed a somewhat interactive approach to tutor or guide an information user to what is situationally relevant. Gilbert (1978/1996) similarly asserted one means to accomplish such guidance by organizing information in such a way as to make it easier to understand and use. Weaving these threads can lead toward a holistic and heuristic model (O’Connor, Copeland, & Kearns, 2003, pp. 95, 102, 113) for engaging the more abstract life choices and decision-making needs.

Describing the emerging biography of the question uses various threads of multiple, disparate sources to weave a tapestry of a holistic model. This model aids the information user in recognizing, identifying, clarifying, and otherwise better understanding a problem or potential problem. The use of different sources may aid the information professional in anticipating or
otherwise addressing the multiple unknown factors affecting receptivity of particular users. This stage of the process may contribute to the user in both recognizing and accepting that an anomalous information gap exists, and recognizing the causal components of the particular problem to that particular user. Various sources are used to better understand both the problem as well as the possibility of an available and accessible solution to it, which may move a user to better decision-making. This process of using multiple sources, of constructing information in simple ways amenable to the user’s easier understanding, and of guiding the user through the initial stages of the process of unrecognized or ambiguous needs, as well as unknown and unanticipatable receptivity factors affecting retrieval, may significantly aid an information user. It may increase the probability of a user (1) identifying and accepting that an information gap exists; (2) being aided to better understand various aspects of that problem, including causal factors, intervening influences, and changing nuances; and (3) enabling the user to see and accept plausible solution(s). This interactive guidance may not only accomplish these three objectives, but in part benefiting from such accomplishment, may also increase the probabilities that the user will choose action, appropriate action in the circumstances, in their decision-making process.

Put simply, if a user faces various obstacles to problem-solving on a major life decision in the ongoing quest of question development, constructing an easy-to-understand case may persuade the user to see and solve their problem. For example, if one encounters the above quotations by Thoreau and Eliot, this information itself may awaken an anomalous state, which was latent but existent only in the interstices of consciousness and subconsciousness. Depending on various constraints upon and obstacles facing the person-- including the capability to articulate specifically how and whether the encountering information is situationally relevant to that individual, the time to develop the thought and pursue the information gap, and the
awareness of the sources and types of information that may aid resolution-- the individual may evade, bypass, confuse, or even deny the anomalous gap.
Men at some time are masters of their fates: The fault, dear Brutus, is not in our stars, But in ourselves, that we are underlings.

W. Shakespeare, *Julius Caesar* (1.2.135)

This analysis utilizes a hybrid methodology in its overall approach of multi-level, multi-dimensional, and multi-disciplinary information sources. The study weaves a textured model with threads from the discrete categories of information science, neuroscience, psychology, behavior analysis, philosophy, literary sources, spirituality, financial and economic information, among others. It can be reduced generally, however, as primarily concentrated on three types of specific methodological categories.

First, it uses the integrative literature review (ILR) (Torraco, 2005) to canvass multidisciplinary sources to draw upon dissimilar but interrelated elements in critiquing, yet borrowing from, existing models in the construction of a proposed model. The ILR is a methodology that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated (Torraco, 2005). An ILR involves analyzing and critiquing the literature, and creating new understandings of the topic through one or more forms of synthesis (Torraco, 2005).

Second, in-depth interviews of lawyers and accountants have been conducted to obtain data with richness in texture and depth to be interwoven in and illustrative of the model construction. Aspects of multiple qualitative research methods may be useful as complementary subparts of interviews for this hybrid approach. Interviews are a flexible technique that may be
brief (one time for an hour), "intensive," "doorstep" (e.g., census), or the "random walk" method to obtain a fair sample, may use “domain analysis” of a discourse community (e.g., scholars in a given discipline) (Case, 2002, pp. 209-10). Brief interviews may be illustrated by Atwood and Dervin’s study (1982), which tested "situated movement state" typology (of information gaps people reported) as a better predictor of subsequent question-asking than race (i.e., the individual’s situation was most influential for information seeking) (Case, 2002). Face-to-face interviews may be conducted in homes, at work, and in schools (Case, 2002). Another example of brief interviews is the study by Gantz, Fitzmaurice, and Fink (1991), conducting phone interviews (15 minutes each) for information behavior of seeking by topics and the relationship of interest in topic to seeking (a sample interview inquiry included: do you actively turn for more information about a topic you have already heard about?), with results tending to reinforce the stereotype of passivity for general categories of information studied and explained at least in part by the cost-benefit model (of rewards to expenditures), and possibly less reinforcing for the more educated and wealthy respondents (Case, 2002).

Alternatively, intensive interviews are less amenable to quantitative analysis, and may or may not strive for generalization (Case, 2002). Some assume that objectivity is possible, while others study phenomena that are entirely subjective in nature (Case, 2002). Two examples are reflected by a sample of a subculture (52 janitors or working poor over the course of 2 years) and a more lengthy study of three brothers conducted to understand viewpoints (Case, 2002). Relating to the former sample, Chatman (1990) summarized evidence of comments, field notes, and representative samples categorized in 5 alienation indicators. Many comments and anecdotes of the respondents studied supported her theory based on the particular source or indicator categories she used. Chatman found that respondents used media for utilitarian and escape
purposes. She left open, however, that her findings “may apply” to a larger group, without explicitly generalizing (Case, 2002, p. 215). Relating to the latter sample, Mick and Buhl (1992) studied three Danish brothers in phenomenological interviewing of ads in magazines and of culture to examine whether themes and projects in their lives affected meanings (i.e., a unique way of seeing), rather than information content or researchers’ projected interpretations. Mick and Buhl utilized a research design based on psychological theories of personal constructs and life themes. It was their view that individuals at an early age “begin to structure their goals and actions to create coherence in their lives,” which create interpretational differences (Case, 2002, p. 216). Mick and Buhl conducted two phases: interviews on ads and interviews on life themes and society. They found that each brother did connect some life elements to ads (e.g., a suit was viewed as pride of achievement or by another as scorn of false image), and did tie to events and values. The strength of such an ideographic strategy is also its weakness of merely one individual’s reality. Nevertheless, Case concluded that Mick and Buhl had demonstrated the value of the “life story” method and had established that “life themes and projects” are valuable data (Case, 2002, p. 217).

Another subpart involves the case study method, which evolved from legal cases, or the case analysis method (Case, 2002). It involves in-depth study of one (or very few for comparison) person(s), object(s), or event(s). It provides richer qualitative data and emphasizes context. The richness may be evoked from the individual’s template of understanding, construed through his or her complex network of background and experience (O’Connor, Kearns, & Anderson, 2008). O’Connor et al. noted that an individual’s question is not static, but rather exists on a continuum, suggesting the need for qualitative methods to flesh out the possible positioning of the individual’s need on this continuum. (O’Connor et al., 2008) Case studies
may include several types of evidence, such as archival and thoughts or actions, and it may utilize various other methods (interviewing), quantitative techniques (e.g., sales records, stats), or likely qualitative devices (e.g., notes, transcripts) and are often used in combination with other methods and techniques of, for example, observation, interviews, etc. (Case, 2002). This method uses limited numbers of entities and variables, tends to deemphasize other factors, and is limited by its length and timing by studying only one point in time (Case, 2002).

Kuhlthau’s (1999) case study of a securities analyst, is one such example, on the question of expertise development over time (i.e., a longitudinal investigation reviewed over 5 and 15 years) (Case, 2002).\textsuperscript{1} She analyzed the process of identifying and interpreting information, uncertainty, decision-making, and task complexity. Kuhlthau’s study also showed that purposeful selection of participants in this method can be useful and reinforce validity, but it may also inject biases, whereby reliability may suffer. Creswell (2009) described validity, as whether one can draw meaningful, accurate, and useful inferences based on the procedures used; reliability as internally consistent across constructs and researchers. Case (2002) similarly noted that studies using lab experiments, including “quasi-experiments” (198) and which may be biased by participant awareness, indicated that consumers budget their time allocations and prefer the opinions of others, even if less authoritative or reliable. In her case study, Kuhlthau’s findings included that the analyst’s uncertainty was tied to anxiety, which was affected by perceptions of complexity. In sum, the methodology of using such case studies can have a cumulative effect, they may explain why, and they may lead to the implementation of further studies (Case, 2002).

\textsuperscript{1} Citations to studies and publications addressed by Case (2002) are contained there, and therefore omitted here for purposes of this paper.
Two additional components involving these in-depth interviews within my hybrid method should be noted. Within the interviews, this study upon occasion adopts a Likert-scale for responses to some questions to obtain a sense of the extent of a reaction or of where on a spectrum a respondent may place their reaction. Also, a method suggested in behavior analysis is utilized. Gilbert (1978/1996) established a methodology of two comparisons: “exemplary performance to typical performance” in order to assess the possibility of improved performance (pp. 30, 38-39, 60-62) and the extremes of performance at either end of the spectrum, noting that Olympic gold-medalist Mark Spitz at his best was only about 20 percent faster than the average high-school swimmer. Corollaries of method should also be noted: “The way you gather the information affects the outcome of the experiment” (Seife, 2006, p. 161), and “the outcome of measurement depends on the…frame of reference” (Seife, p. 130).

Specifically, this study includes intensive and in-depth interviews of legal and business professionals consisting of six lawyer interviews and two certified public accountants (CPAs) interviews, for a total of eight. All eight interviewees have graduate degrees, professional licenses all are aged over 40 years (from 41 to 63); and they have all worked at large firms, and the lawyers all in litigation, who achieved top grades and/or attended top schools, including Columbia, Dartmouth, University of Texas, Texas A&M, University of Houston, SMU, and Baylor. The break-down analysis of interview details for time duration, demographics, and average data is provided as follows:

- 3 lawyers (3 females) avg: approx 4.75 hours
- 3 lawyers (3 males) avg: approx 3.5 hours
- 2 CPAs (both males) avg: approx 2.75 hours

Overall average interview time was approximately: 3.75 hours for each of the eight interviews.
Patrick Wilson’s dissertation "On Interpretation and Understanding" (1960) informs the method and substance of this exploration. As a philosopher he approaches information science topics from a pragmatic behaviorist perspective, with a deep concern for “bringing knowledge to the point of use” (Wilson, 1977). Of particular importance here is Wilson’s notion that attempting to understand what another means requires an iterative process of examination and checking, and frequently still having no surety of understanding. (McCreery, 2000, p. 71) From a substantive perspective, Wilson’s dissertation makes contributions to my thesis about the means by which information users go about thinking, interpreting, understanding, and thus possibly knowing and applying, different types of information. One may observe the merger of the two merely by review of his dissertation contents page, which utilized the following terminology: dialogue, questions and answers, meaning and understanding, transintentionality, intention and sense, exegesis, meaning and justification (Wilson, 1960, pp. ii, 1-2). The substantive use of Wilson (1960) is taken up herein, in chapter III.

Thus, this study adopts a hybrid method using the ILR, in-depth interviews (by face-to-face and phone interactions), and the broad and philosophic approach adopted by Wilson (1960).
CHAPTER III
LITERATURE REVIEW

*Denial is the most predictable of all human responses.*


*It’s the question that drives us…. Why isn’t [it] working? Perhaps we’re asking the wrong questions.*

movie *The Matrix* (1999)

*The problem is choice…. Hope, it is the quintessential human delusion, simultaneously the source of your greatest strength, and your greatest weakness.*


A. Information Science Background

There is a thread running through the history of information science of a role for information professionals—a core tenet of this proposal—as interactive guides to and through potentially disparate information sources.

Vannevar Bush (1945), an MIT professor who led the scientists during World War II, foresaw a new profession of trailblazers to establish informational paths, necessary through the maze of accumulating information to aid all people with their innumerable questions, with information needs to be addressed, and with the potential need for guidance to information that may rescue them from serious and engulfing life circumstances. Bush implicitly invoked notions of Maslow’s (1963, 1970; Case, 2002) hierarchy of needs in suggesting that science permitted control over the material environment (including security and disease) and then moved to higher-level needs of communications and of a record that evolves and endures throughout the life of a race, not just an individual. The mountain of research and levels of specialization risks the
human race’s significant attainments being lost in the mass of the inconsequential; but cheap, complex, and reliable devices could free brains for a higher focus, including intuitive judgment. Shannon and Weaver (1949; O’Connor, Kearns, & Anderson, 2008) subsequently contributed notions that a communication channel is noisy, where the designer and user’s templates of understanding do not match and that communication involves both the message’s content and structure. Wilson (1960, 1973, 1977; O’Connor et al., 2008) later provided the philosophical context of how we know things, how we know whether we know things, how our experiences and backgrounds relate with a document, and how relevance is highly contextual, individualistic, and subject to our personal circumstances and situations.

Noting Bush, Saracevic (1999) stated that information science’s characteristics include an interdisciplinary nature (because of the nature of the problems it addresses, as well as the characteristics of the fields that contribute to the study these problems) and evolution connected to technology, the active participation in evolution of the information society, and the social and human aspects beyond technology. Further, it involves three ideas: processing information for information retrieval based on formal logic, relevance to human information needs, and the interaction with feedback of systems and people, within the social order evolving to the information (or post-industrial or post-capitalist) society. Like most basic phenomenon, Saracevic said we do not know what information is, but suggesting it lies on a continuum, with an information science structure integrated to get the “human in the loop” (p. 1058). Citing Schamber (1994), Saracevic also addressed the concept of relevance as the criterion of effectiveness of exchange between the user and information retrieval (IR) systems with the measuring instrument of human judgment, which is both the strength and weakness of such measurements.
Consistent with Saracevic, Bates (1999) further described information science as cutting across or orthogonal to content disciplines, as a meta-discipline. Information Science professionals require a transformation to thinking in terms of representations, and conceptualizing and translating queries, as an Information Science lens for theoretical and practical levels. Bates further elaborated on open cognitive styles and orienting strategies, preferring a both/and approach and distancing from the historical monothetic/idiographic struggle (Fisher, Erdelez, and McKechnie, 2005, chap. 1). Allen (1996) similarly took a broad approach, focusing on information-as-process and information-as-knowledge. He recognized the necessity of analyzing the background of informants, information seekers, and devices to understand the interrelationships of the component entities of the system, graphically presented on a grid with a point of contact at the intersection of the user and device at the center of four quadrants. Beyond the point of contact, Allen described it as an evolving or cyclical process of feedback. Relating to this process, Allen stated, “Most people engage in a combination of information-seeking and information-avoiding behaviors. The problem-solving perspective is broad enough to include both information-seeking and information-avoiding activities” (p. 12).

B. Information Science Issues

1. Information and Seeking

Case (2002) stated that information is typically defined broadly to mean: “any difference that makes a difference to a conscious, human mind” (p. 40, citing Bateson, 1972, p. 453). He elaborated that information are typically about answers, uncertainty reduction, and gaps. Nicholas Belkin viewed uncertainty reduction as seeking that is motivated by an “anomalous state of knowledge” or ASK (Case, 2002, p. 74). Kuhlthau researched uncertainty as learning through a process of testing constructs often involving anxiety and other emotions in stages.
Dervin viewed the need as sense-making of the world, emphasizing feelings rather than cognitions, by filling/bridging a gap. Information behavioral action includes decision-making, relevance, pertinence, salience, selective exposure, browsing, serendipity, knowledge gaps, information poverty, information overload, information anxiety, and entertainment. As items increase and time decreases, information seekers resort to simpler and less reliable rules.

Information may increase or reduce uncertainty and anxiety, may stimulate and entertain, and may not even be sought – including accidental or incidental information encounters – yet may trigger interest. This may occur by way of browsing (described by Case as unplanned searching, casual, skimming, and having a bifurcated nature of either purposive or nonpurposive behavior), scanning, and serendipity. “Browsing is fundamentally a shift in the locus of representation,” involving an individual’s sampling and representing by the individual for the individual. Information users must then evaluate the information’s relevance, pertinence, and salience (often associated with document retrieval), with relevance generally defined as logical relationship and typically invoking pattern and context. Case stated that there has been a move toward a subjective characterization of relevance, commonly called “situational relevance” or pertinence or psychological relevance. Patrick Wilson defined situational relevance as “[w]hatever information solves the particular problem at a particular moment for a particular individual is relevant for that person in that situation.”
2. Information and Avoidance

Case, Andrews, Johnson, and Allard (2005) address the history of and intricacies about avoidance behaviors. Since Aristotle, scholars have assumed that humans have a desire to know, and that is the impetus to information seeking (Case et al., 2005). To illustrate the standard model for seeking behaviors, Case et al. adopted (Tom) Wilson’s model to reflect the flow of information-seeking behaviors (see Appendix A). Another assumption is that seeking, and then acquiring, information aids in the reduction of uncertainty (Case et al., 2005). Scholars began to observe, however, that humans seek information congruent or consistent with prior knowledge and beliefs (Hyman & Sheatsley, 1947). Users avoid exposure to information that conflicts with those internal states, hence, the growing research on “cognitive dissonance” (Festinger, 1957; Frey, 1982).

Further research on “fear appeals” by Janis and Feshback (1953) revealed that frightening people to seek or use information may not be effective and that information about possible threats creates tension, which if serious and not effectively resolvable, may be ignored entirely to accomplish consistency. Such information-seeking styles have been described as “monitoring” or “blunting” (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). One study demonstrated that one-third of patients choose to distract themselves when faced with threats they see as uncontrollable (Miller, 1979a, 1979b, 1987).

The assumption of seeking knowledge is embedded in theories of uncertainty reduction (Affifi & Weiner, 2004; Bradac, 2001; Brashers, Goldsmith & Hsieh, 2002), with uncertainty tied to anxiety, and functioning to maximize future outcomes (Miller, 1979a) and to guard against emotional stress (Shiloh, Ben-Sinai & Keinan, 1999). Uncertainty management theory (Babrow, Kasch & Ford, 1998; Ford, Babrow & Stohl, 1996) holds that uncertainty may not
merely be an uncomfortable tension demanding reduction, but may be managed toward ambiguity and confusion, being cultivated as a cognitive state rather than eradicated (Bradac, 2001).

Related behaviors may include selectivity, reinforcement, and being chronically uninformed (Case, 2002). Case cited Schramm (1973), who described five elements of the “complex set of causes” for selective exposure: availability of stimulus, contrast of stimulus with its background, receiver mindset, estimated usefulness of stimulus, and the receiver’s individual qualities, such as education and social status (2002, p. 98). Differences occur in how users may interpret the same information due to their perceptions, memory, motives, and attitudes (Case, 2002). O’Connor, Kearns, and Anderson (2008) similarly described this phenomenon as a person’s “template of understanding” (p. 18). Case (2002) stated, however, that the receipt of information does not necessarily change attitudes or behaviors (citing for example, Thayer, 1987).

People assess threatening messages based on certain factors: the nature of the hazard, their perceptions of the effectiveness of responses to the threat (response efficacy), and their beliefs about their own ability to achieve effective responses (self-efficacy) (Case et al., 2005, citing Johnson, 1997). Therefore, to the extent the nature of the information makes information users feel threatened or anxious, then the likelihood of users avoiding the information, even if relevant or of concern to the immediate issue, increases. For this reason, information relating to issues considered frightening or intimidating may be eschewed, despite the importance of such information to address or resolve a problem. Similarly, if users perceive that the information, if utilized, would not be effective to resolve the issue of concern, or that they are incapable for
some reason to use the pertinent information and thereby render the information impotent, then users may also dismiss or reject the information.

Despite these typical behaviors, people do not always prefer information that is agreeable to them, typically occurring in situations when users choose to seek information if it is useful to them or when the individual is more educated (Case, 2002, citing Sears and Freedman, 1967). Some argue that failure to act on information is due less to selective exposure than to rejection of information with which we disagree: “Perhaps resistance to influence is accomplished most often and most successfully at the level of information evaluation, rather than at the level of selective seeking and avoiding of information” (Case, 2002, p. 99, quoting Sears and Freedman). Case nevertheless noted that Frey (1982) later confirmed “a preference for supportive information in most cases,” and that Sears and Freedman noted a long term “drift” toward information that supports our point of view (p. 98).

Filtering or nonuse can be efficient and rational if part of a conscious policy (Case, 2002, citing P. Wilson, 1995, 1996). While filtering includes seven categories of responses to overload (i.e., omission, error, queuing, filtering, approximation, multiple channels, escaping), the risks of such responses are potentially dysfunctional and maladaptive behaviors (Case, 2002).

Case (2002) asserts that “we can seek knowledge in order to reduce anxiety and we can also avoid knowing in order to reduce anxiety” (p. 104, quoting Maslow, 1963, p. 122). If we cannot avoid, we may incur stress and anxiety, which can lead to lowered performance and enjoyment. Case quoted psychologists for the view that finding a pattern in information is necessary to maintain peace of mind: “The search for structure is inherent in behavior…. People in any situation will search for meaningful relations between the variables existing in the situation, and if no such relations exist or can be perceived, considerable discomfort occurs” (p. 22).
105, quoting Garner, 1962, pp. 339-340). Case mentioned that information anxiety is a “black hole”; it is a feeling of being unable to keep up (p. 105). Case quoted the Pensees: “Blaise Pascal stated that humans have an ‘instinct which impels them to seek amusement…[arising] from the sense of their constant unhappiness’ (1670/1940, p. 50)” (p. 108). But Case also suggested that we can, in fact, learn using fiction (p. 112-13). Based on a Wall Street Journal article, Case said that even investing money and saving for retirement in stocks, versus mutual funds, is viewed as both pleasure and profits (p. 114).

From communications research to psychology studies, Case et al. (2005) canvassed the available research and concluded that the typical assumptions that seeking involves the desire to know, uncertainty reduction, and congruence, are met with the reality of avoidance, cognitive dissonance, fear appeals, and blunting. They focused on Johnson’s three factors that should be evaluated to determine when or whether avoidance behaviors may arise: perceptions of the nature of hazard, response efficacy, and self-efficacy, any one of which may result in the individual avoiding certain information or avoiding the use of information. Despite thoroughly addressing avoidance, Case et al. did not create a new model or suggest a change to Tom Wilson’s model (Appendix A) for this behavior; however, I propose incorporating these three factors into a modified Wilson model (see Appendix B). Having extensively reviewed the relevant literature, Case et al. found that further research on avoidance is important and that existing research is limited and in its relative infancy. Since their research primarily involved a review of the literature on avoidance, they also suggested areas susceptible to future research on avoidance, including cancer issues and genetic screening.

Other contemporary catalysts may also be susceptible to cognitive dissonance, dislocations, uncertainty, anxiety, and perceived threats to the livelihoods and well-being of
millions of people both here and abroad. Economic shifts in global commerce may cause potential dislocations. For example, “Products, industries, technologies, and even jobs no longer depend on the strengths and weaknesses of any one country. Jobs lost at home reappear abroad. U.S. graduates compete with their peers from overseas” (Oblinger, 2001, p. 62). Similarly, Thomas Friedman (2006) noted destabilizing effects, such that “one person’s economic liberation could be another’s unemployment” (p. 240), which could result in “a lot of people stranded on an island” (p. 280).

While some scholars have suggested that workplace spirituality may remedy such threats, it concurrently could raise additional dislocations and cognitive dissonance. These may include its use as a manipulative tool by management to serve various corporate goals (Gotsis & Kortezi, 2008), or its paradox of aiding workers’ transcendent growth, yet their becoming self-focused (Sheep, 2006). These examples suggest that threatening or fear-based information is not only susceptible to cognitive dissonance, but as a result may produce avoidance behaviors.

3. Importance and Paucity of Research on Information Avoidance

Despite some research conducted in psychology and communications, Case et al. (2005) acknowledged, “Few theorists consider both costs and benefits in their examples,” “The information-seeking literature…cites relatively few behavioral theories,” and “[T]he idea of avoiding information is rarely discussed” (pp. 355, 356). These authors reviewed existing theories and studies, and they acknowledged the importance of studying avoidance, as stated in their first sentence: “Beyond obsessions, curiosity, and creativity, lies a host of motivations not to seek information” (Case et al., 2005, p. 354).
Although there are few articles on information avoidance, leading information-science scholars (in addition to Case et al.) have intimated the existence of this information behavior, and particularly confirm the significance of avoidance behaviors:

- “[W]e may neglect or avoid information that is of concern but of no interest.” (Wilson, 1973, p. 465).

- Dervin addressed information-seeking myths, including that more information is always better, or that people make easy, conflict-free connections between external information and their internal reality (Dervin, 1976). Case stated that Dervin’s “landmark 1976 article” challenged the “dubious assumptions” that had dominated information seeking. (Case, 2002, section 1.1.3).

- “‘People can, and frequently do, engage in information avoidance.’ Furthermore, ‘Organizations are frequently equally irrational in their collection, processing, and use of information.’” (Allen, 1996, p. 119).

In addition to little research on the concept of information avoidance, there also have been few articles studying such behavior in specific sectors or with particular types of information, such as health or financial information. In “Please advise: Using the Internet for health and financial advice,” Sillence and Briggs (2007) analyzed studies of consumers’ use of websites to seek financial and health advice and information and they determined factors that engage users, rather than create barriers to users (See, also, Burchell, 2003). In “Consumer Education and Information Rights in Financial Services,” Reifner and Herwig (2003) analyzed the information needs and behaviors of consumers of financial products.

The implications of this research have a broad reach. In his national bestseller, *The Tipping Point*, Malcolm Gladwell (2000) examined the points at which information tips the scales into broader acceptance, and thereby less avoidance, in marketing, product, health, and other contexts. He concluded, “[T]here are relatively simple changes in the presentation and structuring of information that can make a big difference in how much of an impact it makes” (Gladwell, 2000,
p. 25). Understanding the behavior of information seekers and avoiders (the benefits and the costs), therefore, may be at the crux of solving the cognitive-dissonance dilemma and in determining the extent to which information is expanded, disseminated, and becomes public knowledge.

4. Five Information Models of Seeking, Avoiding & Nondeterministic Activity

   a. Wilson Model

       As noted above, Case et al. (2005) selected the T. Wilson Model (see Appendix A) in their analysis and review of studies on information seeking and avoiding behaviors. This model provides a flowchart of the possible stages at which an information user may receive, evaluate, and use information throughout the information-seeking process.

       Case et al. (2005) claimed that Wilson’s model of “information behaviour,” explicitly deals with how individuals may not seek and may actively avoid learning new things. They based this conclusion on Wilson’s model invoking activating mechanisms of the psychology of stress and coping, along with risk-reward theory and perceptions of self-efficacy, all of which relate to avoidance behaviors. Case et al. (2005) asserted that Wilson’s model “deal[s] explicitly with how individuals may not seek information and when they may actively avoid learning new things,” and that it “explicitly recognizes avoidance behaviors in its references to psychological literature on coping and stress” (pp. 356, 357). Contrary to Case et al.’s assertion, there does not seem to be any explicit mention of “avoidance.” The model certainly contains points at which an individual may opt out of the seeking model entirely, but it needs clarification about the stage(s) at which avoidance occurs and the user’s explanation of which, or what combination of, the three avoidance factors (i.e., information nature, response efficacy, self-efficacy) resulted in avoidance.
b. Modified Wilson Model

Despite emphasizing the phenomenon of avoidance, its importance in Information Science, and the paucity of and need for research and analysis of it, Case et al. did not propose a modification to Wilson’s Model. Using the three factors articulated by Case et al. from Johnson’s research (perceptions of the nature of hazard, response efficacy, and self-efficacy), I propose modifications to Wilson’s model to reflect the timing of avoidance into the seeking process, as well as these factors to explain plausible reasons for such avoidance (Appendix B).

Furthermore, since the Case et al. (2005) article, scholars have critiqued these conclusions and suggested the need for future research. Loiselle, Lambert, and Dubois (2006) stated that information avoidance is not an all-or-nothing phenomenon, despite such behavior being fluid and context-bound. They asserted that individual users are rarely found to be avoiders or seekers across the board, but are purposefully selective in the type, sources, and amount of information they seek. As noted above, Patrick Wilson (1973) made the same point. He suggested that an information user determines the information’s relevance depending on the specific situation at a given point in time, but that even if relevant (or falling within a concern set), a user may avoid the information if it is of no interest to the user. Another article addressed a related concept of information behavior, using the label “information in context” (Bawden, 2006). Loiselle et al. (2006) also noted that individuals attend differently to information depending on how it is presented. Gladwell (2000) concurred that the manner of the information’s presentation may be the critical tipping point necessary for the user to react favorably to the information.

Loiselle et al. (2006) suggested that such articles on behavior modulation are informative, but do not attempt to address how and why different information-seeking behaviors emerge in
the scope of their review. They proposed future theoretical and empirical work to address why individuals choose to seek certain types of information and ignore others within and across situations, what are the specific features of information that prompt individuals to seek or avoid it, and how individual differences interact with context to influence distinct processes and outcomes related to information seeking about the self. This modified model based on Wilson’s model addresses several of Loiselle et al.’s criticisms by adding multiple points at which a user may exit, so that both the when and why is reflected by which exit point the user chooses. Furthermore, if the user is purposefully selective in the type, sources, and amount of information it seeks, then the user may not exit to avoidance, but may continue through Wilson’s model to seeking behaviors, with an altered or narrowed information choice.

c. Maron Levien O’Connor Matrix

O’Connor, Copeland, and Kearns (2003) in *Hunting and Gathering*, established the MLO matrix (Fig. 7.1, p. 140) that puts “Question Types” along the horizontal axis and “Question Articulation” along the vertical axis. This Matrix (see Appendix C) demonstrates that “as we move away from the well-articulated look-up-question state, the more likely we are to see more complex, contingent, iterative, and collaborative-seeking behavior (2003, p. 140).

As conveyed above, and reflected by the prior two models, information users are often viewed in the literature on “human information-seeking behaviors” as active seekers, which assumption can lead to a more linear analysis, and which has occasioned much research (O’Connor, Copeland, & Kearns, 2003, pp. 1, 3; Case, 2002). Seeking or denying information may involve a more active or intentional element, with more recent study under the rubric of information avoidance or denial. Additional analyses suggest an alternative view on how information users may encounter information needs, gaps, unresolved issues, and question states.
This analysis invokes a less active and more abstract, nebulous, and vague sense of the entire information-behavioral process, from awareness of the question state itself to the remedy or solution of the information gap. As a result, it conjures a non-linear, “messy,” and “nondeterministic” analysis (pp. 3, 4) to reflect how humans may actually be less cognizant of a question, struggle to become aware of and to grasp and comprehend it, wrestle and “grapple” with it to evaluate its situational and/or immediate relevance, and grope and “stumble” (pp. 1, 100) toward resolution.

Moving beyond these two seeking and avoiding behaviors, these latter three models address another reality of the human thought process—“the nondeterministic manner in which humans often solve problems” (O’Connor, Copeland, & Kearns, 2003, p. 3). As part of this reality, a need exists for “numerous sources of assistance in seeking,” which may “point the way,” particularly due to the “vague and iterative nature of many searches” (p. 5). Thus, an overly rigid or linear approach of typical systems may nonsensically compel the user to “Tell us what you don’t know – and do it in system terms” (p. 6). This challenge is further compounded because the “information is not simply waiting to be found” (p. 45). In this “constant juggling, this constant interplay . . . looking for that little anomaly…that does not make sense,” the information user can confront insurmountable difficulty when relevant information is “not noticed by anyone else, not even visible sometimes to anybody else” (p. 40). Further, in assisting the user, “we cannot anticipate all the ways in which people will ask for” relevant information, so the approach should be “[t]olerant of ambiguity, uncertainty, conceptualizing, pragmatic, and visual” concepts (p. 11) to better “address the whole human engagement with the lived world and the spectrum of questions and seeking patterns that constitute the means of navigating within that world” (p. 10). Rather than merely placating the need, or accomplishing
absolute certainty of a “fit” of information to fill a gap or need (p. 6-7), an information professional may usefully narrow or ameliorate the vague need or abstract question state underlying a sense of uncertainty.

This study seeks an approach or model through an illustration of using multiple information sources reformulated as a new role of trailblazing information professionals to address those more difficult, abstract, and challenging questions, which typically fall off the lower-right edge of the MLO matrix grid, and are often subject to dismissal or denial.

d. Nondeterministic Model of Engineering Design Activity

O’Connor, Copeland, and Kearns (2003) also used a nondeterministic model of engineering design activity (Fig. 7.2, pp. 116, 141), which serves as a functional, pragmatic, emergent, contingent, and satisficing model (see Appendix D).

Life, or a living being, is equipped with at least a measure of “some reasonably successful set of adaptations for survival in a complex and diverse environment” (p. 2). Imagining there are at least some temporary periods or situations in which a relative status quo exists can be itself susceptible to denial, especially in that “stuckness” within the “broader range of human thinking modalities [that] has become legitimate” (p. 6). A quintessential paradox of life arises: that which may enable us to avoid demise and even to adapt can also confine us to a narrowly-restrained rut of mediocre and shallow existence, as well as superficial thinking.

Amidst this context lies the overall condition of “human search frailty,” yielding “a discipline devoted largely to assisting human information seeking” (p. 6). The reality of human searching involves a “paradox” of mistaking “our abstractions for concrete realities" (pp. 98, 114). As a result, humans seem to wear blinders when information may be “concealed” and various forms of “dissonance” exist (pp. 98, 110).
e. Third-Level Elaboration of Seeking Model

Through the combination of these prior models, O’Connor, Copeland, and Kearns (2003) developed a third-level elaboration (Fig. 7.5, p. 144) to show that the “seeking process is likely to be iterative, with changes of course, rather like a sailor tacking downwind” (see Appendix E).

An “epistemological model [should be] hospitable to ambiguity, respectful of failures, and aware that passions are full partners of reason emerged,” which acknowledge that seeking strategies “move away from the well-articulated look-up-question state…to see more complex, contingent iterative, and collaborative-seeking behavior" (p. 140). Humans meet a “kaleidoscope of potential realities, any of which can be readily evoked by altering the ways in which observations are framed and categorized” (pp. 16, 108). “Framing” is “a means of bringing together insights and theories that would otherwise remain scattered in other disciplines” (p. 15), and “Counterframing” then suggests “alternative ways of thinking about their research engagement, and, perhaps more important, they can provide alternative perspectives for viewing problem definition, interpretation, and solution in any given research inquiry” (p. 17). In this way, the information professional may assist not merely in addressing human frailty, but also the coincident fruit of unproductive “illusions” (pp. 20, 115).

Neuroscience places this process in context. It suggests “that reason may not be as pure as most of us think it is or wish it were, that emotions and feelings may not be intruders in the bastion of reason at all; they may be enmeshed in its networks for better or worse…. People who succeed in an information economy are alert and adaptable to an ever-changing environment" (p. 138). The complexity encountered, and as reflected in these last three models, is captured by the comprehensive figure exhibited in Appendix F (adapted by Klaver and O’Connor, 2014).
If denial or unawareness is implicated, finding such applications may be aided by “mentors” (O’Connor, Copeland, & Kearns, 2003, p. 146) or tutors who consider the background of the user and their specific needs, context, and situation.

5. Information Science Solution

As alluded to in the aforementioned sections, when attempting to inform the instances at the lower-right edge of the MLO matrix—which for purposes of this study focus upon denial or avoidance and inarticulated or fuzzy informational gaps—a more tailored if not tutorial model may best serve a particular information user in a particular query or quandary.

Patrick Wilson and Thomas Gilbert each proposed theoretical frameworks for the guidance of an information user, including potentially by the manipulation of information: information users may be aided by taking into consideration the background of the user and his or her specific needs and situation, as well as by manipulating the data into formats or models in which the information is a better fit for that user.

Wilson (1973) suggested a very interactive, if not tutorial, model to encourage and possibly promote improved use of information by,

providing a personal rather than impersonal approach, yielding information selected on the basis of logical relations to our concerns rather than on the basis of subject matter, taking into account one’s state of knowledge, perhaps operating in a ‘tutorial’ mode, modifying or reformulating information so as to be comprehensible and acceptable to us…would be of enormous power and utility. (p. 468).

Wilson later asserted: “the physical availability of every document in the world does not necessarily equate with accessibility. Recall that a work may be linguistically inaccessible, conceptually inaccessible, or critically inaccessible” (O’Connor et al., 2008, p. 125, citing Wilson, 1977). To be brought to use, therefore, the model must support accessibility.
Wilson (1977) subsequently elaborated extensively on such guided and interactive accessibility. Wilson urged as a foundational starting point a much older proposal by William Learned (1924). Learned proposed a “community intelligence service” to serve “first to overcome the reluctance people have to seeking information, and later to maintain their interest and support by supplying just the information needed in the form in which it can best be utilized by the person in question and in a manner that invites repetition” (1977, p. 108, quoting Learned, 1924). Such an “expert” would need to possess “personal tact, quick intellectual sympathies and appreciation, a thorough knowledge of a certain field of material, precision and discrimination of thought, and the power promptly to organize results,” and whose “business is not only to answer but to raise educative questions in as many minds as possible; it must not only interpret the dream, but for many persons it must provide the dream as well” (Wilson, 1977, p. 108).

For “communicable knowledge” to achieve “its effective consumption,” Learned (1924) noted that a “suitable distributing medium” is necessary; otherwise, information “soon lies smothered and useless so far as the great majority of the population are concerned” (Wilson, 1977, p. 109, quoting Learned). Learned asserts:

Meanwhile, the questions that it could answer, the ambitions and struggles that it could promote and assist, the unrecognized needs and opportunities that it could reveal are teeming in the minds of men who either know no recourse for satisfaction, or have no time for a laborious search. The daily losses in energy and material that result from sheer ignorance on the part of otherwise intelligent persons of how to avail themselves of the contents of books must be colossal beyond all calculation. (Wilson, 1977, p. 109, quoting Learned, 1924).

Such “costly ignorance” may have a “remedy” by which “the available knowledge is to be reorganized, simplified, and presented in new ways” (p. 109). Expanding upon Learned, Wilson extended this rationale, starting with some of his own observations.
Because most of us “prefer personal sources” (p. 107), “are insufficiently studious to take advantage of what is accessible and insufficiently imaginative to make helpful applications of the portion we do discover” (p. 108), and “rest on shallow and undependable use of standard reference works to answer a limited category of questions” (p. 108), we may need help. But not merely any help, because “not everyone deserves to be listened to, or consulted” (p. 106). So then what kind of help to awaken and guide us?

This may be answered only after further observations about us, the human animal needing the assistance. For example, “we have no reason to suppose that people are aware of what it is they need to know, and we have no reason to expect that dissatisfaction will drive them to sue the service. We had better think first in terms of an agent whose job it is to discover or diagnose costly ignorance, and we should think next of a means of bringing the needed information to people’s attention directly through some active medium of communication, not indirectly through the dissemination of bibliographical notices” (p. 112).

It is important to notice from the above discussion of Wilson’s ideas that certain themes emerge: he noted the “personal” and “sympathetic” nature or quality of a guide, the discernment of what others “need” to know (pp. 112-13), “how decisions ought to be made,” and “how to decide when information should be gathered and how it should be used” (p. 117), and involving a person “prepared to go much further, by applying things known to the circumstances of my case and recommending courses of action” (p. 113), and implicating “ease and trust” (p. 114).

Wilson proceeded to recognize the array of matters for which advice is needed by ordinary people on a wide variety of their concerns, including health, economic, legal, education, and “the like,” noting such categories as lawyers, doctors, financial and educational counselors, or on “money,” etc. (pp. 115, 117). “We are indeed proposing a corps of professionals as public advisers”
In addressing the “problems of choice,” Wilson noted the “already existing range of professions and near-professions,” as well as “new professions…and occupational groups” which will in time “come into existence” (p. 116). But he also envisioned “new information professionals that might occupy the interstices in the present array of professions,” involving a “personal information system” (p. 117), with such system divided between a particular decision problem on the one hand, versus needed advice on the reorganization of that system or altering one’s system for future problems (p. 117).

This then may involve the “choice of procedures” in “making decisions,” “to decide which relevant information to take into account and to decide what information to seek and use, given the facts that search is costly and imperfect and that use may be difficult and time-consuming,” and may also include a form of deliberate and productive denial of “deciding what relevant information to ignore” (p. 118). “But it is also a matter of deciding what needs to be decided, and knowledge of the relevance of information to a decision problem does not give one knowledge that one is addressing the right problem” (p. 118).

Wilson then arrived as his new information solution as an “imaginary professional”: an “information doctor” (p. 118). “The information doctor aims…at making prescriptions, at recommending effective techniques for attaining one’s goals,” and “he tries to select a pattern of information flow that will lead to improvements in the decisions made in those same old ways”; “he simply tries to predict that, if a particular sort of information system (pattern of information sources) is used, decisions will improve” (p. 118). Wilson continued: “In effect, he tries to put himself in a position to be able to say, Take this, an you’ll find that good things happen to you” (pp. 118-19). Wilson claimed that at that time, “no one is now in such a position, and it is not certain that anyone will ever be in such a position”; the “information doctor may never exist” (p.
119). But he further recognized that information professionals “have not exhausted…the direction of assistance to those concerned with the reorganization and application of existing knowledge. There are still untried possibilities of service through the undertaking of continuous or occasional search not for familiar but for unfamiliar sorts of materials, not for obviously related but for unobviously related materials, and not for the easy but for the hard to find materials. This implies sustained and personal connections between” such information doctors and those whom they seek to assist (p. 120). Wilson sought “a reorientation toward the functional” and “a possible goal…that explicitly recognizes the primacy of the need to bring knowledge to the point of use. This is the ideal…in aid of the reorganization and application of knowledge” (p. 120).

Gilbert (1978) similarly proposed that a more efficient approach to improve human performance may be to organize, clarify, and simplify the information:

Improved information has more potential than anything else I can think of for creating more competence in the day-to-day management of performance. But, as the behavior engineering model (Chapter 3) points out, we can improve information in two general ways:

i. We can improve the clarity, relevance, and timeliness of the data designed to inform people.

ii. We can improve people’s ability to use the existing data.

Training is an attempt to create a permanent change in people’s repertoires – most often, in their ability to process difficult data. As an alternative, we can work on the data – try to make them simpler and clearer, thus easier to understand without extensive training. Obviously, I am not restricted to one or the other of these solutions, and intelligent planning will require that I weigh both alternatives. Perhaps a little change in the clarity of the data can be combined with a little training on how to use them to get cheaper or better results than a lot of either. (p. 175).

Gilbert concluded,

But, in my experience, one stratagem tends to pay off more often – and pay off dramatically: to improve the data designed to support performance. And even if training is the central solution for improving performance, redesigning the data will nearly always make the training simpler and easier to achieve. (p. 175).
By taking an educative approach, espoused by Wilson and Gilbert, informational models generated to aid a user’s decision-making process may help mitigate the person’s trepidation in dealing with certain types of information or in making particularly difficult or unfocused decisions. For example, different kinds of budgeting or other financial-based models may strike a personal chord important to a particular person, resulting in at least a pause in the decision-making process and maybe an adjustment in the person’s subsequent actions.

Redesigning or reformulating information using various models may help mitigate the extent of avoidance of information, or of an incoherent or inchoate information need. This can be critical when such behaviors lead to people making uninformed, reckless, or impulsive decisions. Such errors may occur because people are compelled to deal with a necessary decision, but do so by deliberately disregarding salient information or otherwise attempting to avoid any action whatsoever on the particular issue. The recent global financial crisis of 2008 - 2009 may constitute an instance giving rise to difficult choices and decisions and of perceived threats, risks, and inordinate fears, which make it susceptible for further research, including the testing of information models and whether they aid an individual’s use of pertinent information for better decision-making.

Information seeking, avoiding, and nondeterministic activity involve a complex mix of an almost infinite set of variables, many of which may not be fully capable of articulation by the person with the information need or question. Avoidance may be the result of various factors including fears and anxieties about the information or the decision to be made, lack of time to focus on the information or the related decision, information overload, lack of any interest by the person despite an impending decisional deadline, or even the fact that the person may not know the extent of what they do not know. Relating to these issues, a person may be in a quandary
about how one appropriately evaluates or assigns weight to the credibility, authoritative and persuasive aspects, and value of a given set of information (Silence & Briggs, 2007). As Case et al. (2005) indicated by their suggestion of research on cancer and genetic screening, avoidance may occur on the most important issues in our lives – the issue’s gravity alone may be the key cause of trepidation and avoidance. In such instances, Wilson and Gilbert’s proposals for information models of guidance or reformulations to assist decision makers may afford the most efficacious and efficient method by which professionals in Information Science may serve as trailblazers to help solve serious problems (Bush, 1945).

C. Information Science and Neuroscience

With the advent of new and developing research in neuroscience and psychology, it becomes incumbent upon the present analysis, including its support for an “Information Doctor,” to survey the pertinent literature in this different yet overlapping field. Hence, interest in neuroscience and epistemology, in both the physical and philosophical dimensions of the mind and brain, is essential at the convergence of the brain, worldviews, and Information Science. The brain’s involvement with information clearly necessitates at least some theoretical context from which Information Science may thus build and extrapolate its frameworks and models.

1. Processing of Information

In The Engine of Reason, The Seat of the Soul, Churchland (1995) described the cognitive processes of the brain as recurring loop mechanisms by which sensory data enters, and in which discriminating functions partition vectors to distinguish, for example, different faces and sounds, apples from oranges, or sweet from sour. The brain uses constructed networks by “parallel distributed processing” (or “PDP”) rather than simply being limited to serial processing (p. 11). This occurs by the use of “vector coding” and processing (pp. 26, 29, 35, and 92) through
synaptic adjustment by the successive “back-propagation of errors,” or trial and error (pp. 42, 81, and 86), using descending or recurrent pathways (p. 99). New sensory data enters the brain while the recurrent pathways maintain certain existing information, to which the brain compares the new data. The bottom line of this process is that the brain partitions the different vectors as it “discriminates” among the data and fitting it with possible categories (pp. 38, 50-53, 83, 91, 125, and summarized at 211 and 236).

Churchland also described the concepts of “redundancy” of information and vector completion, by which the brain deciphers an object despite certain portions of the complete information being blocked, “camouflaged,” or otherwise degraded or ambiguous (pp. 9, 14, 45-46, 65, 102, 108-112, 123, and 212). In other words, the brain is able to fill in the gaps to determine, assume, or overcome the missing information.

In Theology and Psychology, Dr. Fraser Watts (2002) similarly addressed the brain’s processing abilities in its development, evolution, and in dealing with information. First, evolution likely involves the “convergence” of both genetic and cultural influences (p. 22). Second, the “Implicational” and “Propositional” systems of the brain may explain how human emotions work and occur and become known within the brain (86-88; see also Churchland on “emotional states,” p. 222).

These conclusions suggest that the evolution of human consciousness may result from the introduction of and consistent advocating for ideas. To support such proposition, history is replete with the (assumed) forward movement of civilization from the ideas of Socrates, Plato, Aristotle, Gutenberg, Copernicus, Galileo, Newton, Kant, James Watt, Wilberforce, Darwin, William James, Einstein, Gandhi, Malcolm X, Martin Luther King, Jr., and so many others, all of whom were likewise affected by others who aided their lives and contributed to their developing
ideas, consistent with the saying attributed to Sir Isaac Newton that we are dwarves standing on
the shoulders of giants. In “Mere Christianity” (1952), C.S. Lewis similarly compared the

Upon the introduction of a new idea, the brain performs what Churchland (1995)
described as comparing the idea to existing vectors, and if it does not fit within existing
categories, the brain begins to create a newly partitioned vector (p. 278). In describing this
process, however, one should exercise care in attempting to keep “either/or” distinctions or
“dichotomous thinking” (Watts, 2002, p. 151) in check. Such new ideas, at least coalescing
among a number of brains, may trigger or result in new trends or directions in social systems,
thereby initiating debates and battles, pushing humanity and its consciousness, individually and
collectively. This struggle within the brain to comprehend, understand, and apply new ideas may
occur within the inarticulate Implicational system, which may later be coded into words in the
Propositional systems. Some may refer to this phenomenon as “cognitive evolution,” whereby,
“We need no longer depend on personal experience or the recollections of those with whom we
have physical contact” (O’Connor et al., 2008, p. 225). Churchland also described this as
follows:

Accordingly, what was the exclusive possession of a scientific elite during one age can
become the working possession of Everyman in another. Today’s esoteric theoretical
framework can become tomorrow’s thumb-worn common sense. And today’s common
sense can become tomorrow’s forgotten mythology. The scientific enterprise,
accordingly, is not just the indulgence of the hyper-curious. It is the leading rung of a
ladder the entire human race is climbing. (278).

Throughout this process of debates and struggles, it is helpful to bear in mind that “Certainly there
will be some frustrations that we did not discover a simple mechanism, a single prescription, and
a main highway across the territory. Yet this can also be the source of wonder and encouragement”
(O’Connor et al., 2008, p. 226).
2. Illustrative Examples of Affective Worldviews

Influential worldviews may impact the partitioned vectors within our brains, and therefore also affect our interpretations of information whether in documents or obtained through our senses. Postmodernism may present one such worldview as a particular way we see things (O’Connor, Copeland, & Kearns, 2003, pp. 20, 115). It constitutes a system, a way of being in and understanding the world (Moules, 2000). Its characteristics include pluralism and indeterminacy, involving a construction of reality by which we create meaning. Moules further stated that postmodernism may result in a person choosing to abdicate responsibility, become self-indulgent, endanger reality, and fall into nihilism and narcissism. Postmodernism relates to (either by overlapping with, being independent of, or intermittently both) the second worldview.

Materialism is another viewpoint or mindset, which may influence us and therefore affect the meanings we develop for messages. It may involve escalating expectations for hygiene (or material) needs (Sachua, 2007). Sachua found that income can prevent suffering better than it can bring happiness. In fact, he concluded that materialistic people are more depressed, have more anxiety and narcissism, and have increased drug use, but that long-term happiness occurs only where there is psychological growth.

Such influential vectors within the brain may alter our subjective views of documents or objects or our decision-making processes, including information-seeking and information-avoiding behaviors. These constitute part of the individual’s worldview. “A person’s template of understanding is quite a simple concept to express, though each template is construed by a complex network of experiences, ideas, images, emotions, an knowledge… It is by one’s own template of understanding that meaning and function can be extracted from a document [or object or idea]” (O’Connor et al., 2008, p. 18).
Another schematic perspective to view vectors, PDPs, the “massively parallel computing system” of the brain (Churchland, p. 264), worldviews, and our interpretation of ideas, may also exist. In the brain’s multi-dimensional (described by Churchland as being “plastic functionally,” p. 262) and recurrent neural processes, the brain likely performs not merely the initial discriminatory partitioning, attempting to decipher and categorize new sensory inputs (including ideas), but also, and as part of this process, another form of filtering and perception through our own uniquely individual lenses. Our lens may operate in a sense like a funnel, or vectors upon or within vectors, or plasticity, shaping and narrowing the information in the partitioning process. Churchland touched on this (or an arguably similar) notion as follows:

Creativity, like intelligence itself, is probably not a single feature or a one-dimensional phenomenon. But one of its salient dimensions is clearly illustrated in the case of major scientific discoveries. It is the capacity to see or interpret a problematic phenomenon as an unexpected or unusual instance of a prototypical pattern already in one’s conceptual repertoire (278)….

In summary then, the suggestion is this. Scientific [and I would suggest other forms of] creativity is the capacity for the novel deployment and extension of existing activational prototypes in the face of novel or problematic phenomena, by means of vector completion and the recurrent manipulation of one’s own neuronal populations (279)…. That process of concept formation takes place relatively slowly as one’s global pattern of synaptic weights is gradually reconfigured in response to one’s ongoing sensory experience. But once those prototypes are in place, a human is in a position to find new and surprising applications of those prototypes, even in perceptually inaccessible domains, by virtue of our built-in capacity for vector completion or filling in the gaps. (279-280; see also “insights,” “novel deployments,” and “conceptual advances” at 248-249).

Using the above mindset of materialism as an example, one might demonstrate the potential impact with the following example of two shoppers who walk into a department store. The first shopper rates much higher on a Likert-scale for materialism than the second. With escalating material needs, and in circumstances of desiring to relieve some perceived suffering or anxiety, the first
shopper may have a tendency to look at the price tag of a garment or a gadget and rationalize the reasonableness of the purchase, including that it fits within his or her budget. The second shopper looks at the same price tag, however, and may very nearly convulse at the unreasonableness of such a purchase because it would explode the budget. One might next hypothesize about the reaction of these two shoppers to an economic model, for example, a financial budgeting spreadsheet. If the first shopper were asked to look at and consider an actual budgeting model, evaluating the more comprehensive or larger web of cost of that purchase and how it might impact the personal budget, the shopper may not wholly change the initial rationalization, but may consider a different purchase, less spending, or no spending for the moment. The second shopper, when faced with a similar tailored or customized budgeting spreadsheet, might feel that the initial reaction had been properly confirmed, and thereby reinforce the preliminary decision.

In considering these concepts and examples, various corollaries and caveats should be recognized. First, prototypes and departures from prototypes can yield both thousands of “copycat” versions and thousands of more novel or challenging versions of paradigms, patterns, and cycles (Churchland, pp. 295-297, describing rock, blues, and jazz music variations). The former copycatting occasioned by the strength of repetition, as one Stanford study has demonstrated, and as psychologists described in the propagation of legends by striking an emotional chord or of ideas by emotional selection (Wang & Aamodt, 2008, p. 19A). Second, a caution might be warranted to be vigilantly aware of the potential mental trap of “dichotomous thinking,” by which we assume “this” and “that” are mutually incompatible, without a relationship between the two (Watts, 2002, p. 151). But this may include being wary of dichotomous thinking about dichotomous thinking because in some instances the things may actually be mutually exclusive, rather than complementary. Coleridge addressed these distinctions, choosing to welcome “distinguishing”
but to castigate “dividing”: “It is a dull and obtuse mind that must divide in order to distinguish, but it is a still worse, that distinguishes in order to divide” (p. 151). In this regard, as noted above, Bates (Fisher, Erdelez & McKechnie, ed., 2005) helpfully argued for the application of a both/and approach for conceptual distinctions.

The aforementioned literature on the brain’s processes, particular worldviews and vectors, and the potentiality of manipulating, redesigning, or reformulating information to ameliorate a problem perceived by people, especially when making major decisions of great import to their lives and lifestyles, corroborates Bush’s (1945) vision of a new profession of Information Science trailblazers who make advancements through the maze of information. We may be able to accomplish Wilson’s necessity to “bring information to the point of use” through models that construct information pertinent to a particular person (or group) for particular situations. If the model causes the information to resonate with that individual’s prototypes and vectors, including by challenging them, then the possibility of information use and of better decisions may be realized.

3. Recent Literature on the Brain’s Processes

Since Churchland (1995), there has been a surge of work modeling the intricate recesses of the human mind. This research impacts not merely epistemological issues about how and whether we can “know” certain things, or anything, but it also penetrates the central issues of what is at the core of human representation in its myriad forms. Neuroscientists, psychologists, behavioral economists, and scholars in other related disciplines are attempting to better understand and analyze these inner workings about how we think, what we know or can know, how we make choices and decisions, and thus ultimately, how we live our lives. This subsection draws their insights into the realm of information science so that we may apply them to how and whether information users may better bring knowledge to the point of use.
a. Expansion and Update on Churchland

Churchland (1995) had nicely surveyed how the brain works in his theoretical philosophic framework. Seventeen years later, Churchland (2012) extended his earlier work. Generally, Churchland’s cornerstone concept involves “maps of abstract feature domains”: maps of “complex universals and the often intricate similarity-and-difference relations that unite and divide them…of the timeless and invariant background structure of the ever-changing, ever-unfolding physical universe in which all brains are constrained to operate…[and] that constitute the ‘conceptual frameworks’ so familiar to us from the philosophical tradition, and so vital to any creature’s comprehension of the world in which it lives” (p. viii). Churchland adopts much of the terminology of his earlier book to describe brain activities, such as “vector-coding, matrix-processing, synapse-modifying, map-constructing, prototype-redeploying” (p. 251).

In short, the inner conceptual map ‘mirrors’ the outer feature-domain. Imperfectly, no doubt. But possession of the map allows the creature to anticipate at least some of the real-world features that it encounters, at least some of the time. The interactive library of such maps…constitutes its background knowledge…or…background understanding (for better or worse), of the world’s lasting abstract structure…. It’s just that our relevant representations are not remotely prepositional or linguaformal in character. Rather, they are high-dimensional geometrical manifolds…maps [which can be “indexed”]” (viii-ix)…. In this way, our several sense organs are continuously indexing our many feature-space maps to provide us with an unfolding understanding of our unfolding objective world-situation…a Map-Indexing Theory of Perception, and it gives a contemporary voice to Plato’s further claim that a prior grasp of ‘universals’ is necessary for any particular case of perceptual understanding. (p. ix).

He notes, “The framework of high-dimensional neuronal activation-vectors being ‘multiplied’ by a matrix of synaptic ‘coefficients’ to yield new activation-vectors across the neuronal population to which those synapses connect is a novel deployment of some well-known mathematical resources. But it is hardly a deployment that draws on elements of our familiar experience” (p. 274). Churchland (2012) proceeds to challenge the notions that the central
explanation of cognition is language or linguiformal (pp. 260-261), Hegelian or the better accounts of the “Logical Empiricists” (pp. 261-263, 266, 271-272), or Dawkins’s “memetics” drawn from metaphors of Evolutionary Biology (p. 264), but consists “instead of the high-dimensional neuronal maps of abstract feature-domains” (p. 265), of the “underlying forms of prelinguistic cognitive activity” (p. 261). It is “the business of trying to deploy a very high-dimensional and only partially articulated map to an ambiguous and only partially appreciated empirical feature-domain, in hopes of having the expectations thereby generated either rewarded or disappointed” (p. 271). Such reconstructions involve, logico-linguistic terms…whose meaning is already embedded in a complex, fluid, and not entirely determinate network of background assumptions, which assumptions are often themselves part of what is at stake in the research program at issue…. But we should not presume that they embody the true cognitive kinematics and the real cognitive dynamics embodied in the vector-processing activities of those very same speakers and writers. They don’t (p. 271). Sentences are just the comparatively low-dimensional public stand-ins that allow us to make rough mutual coordinations of our endlessly idiosyncratic conceptual frameworks or theories, so that we can more effectively apply them and evaluate them (p. 262). [Indeed,] the framework of prototype activations in recurrent neural networks provides an immediate characterization of both those cognitive epiphanies themselves, and their subsequent evaluation as potential guiding paradigms for a novel research program in an already existing but troubled explanatory domain. (pp. 273).

Churchland (2012) alludes to a kind of denial in the cognitive processes he describes:

“Cognitive inertia can be an enormous barrier to conceptual change, and it most surely has been in the case here at issue. Perhaps the main purpose of this book has been to weaken that inertia and to break down the relevant barriers” (p. 274). Whatever our individual internal maps may be, embedded with our various assumptions and idiosyncratic sensory perceptions, such inertia can comfort us in a rut, or rather into a ditch, from which we may need help being awakened.

Churchland (2012) concludes that through the cognitive processes, as he proposes them, including the aforementioned awakening nudge upon occasion, a collective awareness and
expansion can occur, and indeed has occurred, existing beyond temporal and spatial limitations, even beyond individual brains, but reaching out to cognitive activities which are at once external and integral to individual brains (pp. 274-275). These extra-activities have been referred to as “situated,” “embedded,” and “scaffolding” which serve as “enabling mechanisms” (pp. 274-275). While Churchland does not subscribe to a type of Hegelian “giant living organism” or “giant mind” (p. 277), he does call it “Third-Level or Cultural learning” from which “the remarkable amplification of human cognition” is sustained (p. 275). In his “cartoon of figure 5.2” (pp. 275, 257), Churchland (2012) diagrams the “enveloping cornucopia of nested regulatory mechanisms,” comprising the structure and components of the enterprise of human cognition. Hence, we might collectively recognize “the primacy of the need to bring knowledge to the point of use” (Wilson, 1977, p. 120).

b. Evolution to Self and Illusion of Will

Damasio (2010) describes the conscious space of the brain as fairly restricted and limited, but the nonconscious space as relatively more vast (pp. 275, 269, 270 and citing Patricia Churchland on control issues), and thus making the reach of consciousness “amplified” and “free for creative use” (p. 270). Hence, with the conscious brain guiding the larger functionality of the nonconscious space, evolution has provided humans with an improved ability to plan, deliberate, and make informed decisions for prospective actions (p. 269-77). It is this “combination of unconscious and conscious powers” that result in a “felicitous synergy of the covert and overt levels that carries the day” (p. 275), though “[w]hat exactly is going on is not entirely clear yet” (p. 276). “Our economic decisions [for example] … are significantly influenced by powerful biases such as the aversion to losses and the delight in gains” (p. 276, citing D. Kahneman, Jason Zwein, and J. Lehrer), as are voting and courtroom decisions (p. 277).
To Damasio, the peak has been the developmental process to the “robust and rebellious self” (pp. 287, 289, 290, 291), which culminated from the long evolutionary path from the emergence of neurons in mobile organisms toward “relentless progression” (pp. 285-86), to the brain, to the mind, to the “protagonist” (p. 286) of the self-conscious and reflective self, as “self comes to mind” (pp. 286, 288). The reflective and curious self engendered stories, upon the “systematic discovery of the drama of human existence and of its possible compensations,” wondering “about their status in the universe, something akin to the where from and where to questions that still haunt us today, thousands of years later,” and thus developing accounts through myths and “religious narratives” to explain the reasons behind the “drama” (p. 291).

The “engine behind these cultural developments is the homeostatic impulse” (pp. 292, 282) which enlarged into the “sociocultural homeostasis” (p. 292); hence, generating the various structures of laws, punishments, rewards, “complex emotions” (p. 287), reasoning, and ultimately the “autobiographical self” (p. 287) using arts to solve and resolve the various imbalances impeding humans from “dreamed-of well-being” (p. 293). Like Churchland (2012), Damasio noted, “Minds constituted by maps of diverse sensory modalities were helpful in improving life regulation, but even when maps became properly felt mental images, they were not independent, let alone rebellious,” until “minds first added a core self to their stock, which is when consciousness really began” (p. 287). The interaction and interplay of mythical and scientific (p. 288), value and reason (p. 289), and the aforementioned conscious and nonconscious all contributed to this extensive development, all of which ultimately rests, relies upon, and is dependent on memory (p. 290, 296-297). “Neurally speaking, sociocultural homeostasis begins at the cortical level, although the emotional reactions to the imbalance immediately engage the basic homeostasis as well, testifying once again to the hybrid life
regulation of the human brain, high, then low, then high, in an oscillatory course that frequently flirts with chaos but barely avoids it” (p. 292). “The imagined, dreamed-of, anticipated well-being has become an active motivator of human action. Sociocultural homeostasis was added on as a new functional layer of life management, but biological homeostasis remained” (p. 293).

“The problem of how to make all this wisdom…stick” was solved by “storytelling” which is “something brains do, naturally and implicitly” in the creating of “our selves” and pervading “the entire fabric of human societies and cultures” (p. 293). As with the “oscillatory course,” “[b]iology and culture are thoroughly interactive. Sociocultural homeostasis is shaped by the workings of many minds whose brains have first been constructed in a certain way under the guidance of specific genomes” (p. 294). And the “homeostatic impulse that shaped the development of myths and religions was behind the emergence of the arts, aided by the same intellectual curiosity and explanatory drive” (p. 294).

Ultimately, because the arts have deep roots in biology and the human body but can elevate humans to the greatest heights of thought and feeling, they became a way into the homeostatic refinement that humans eventually idealized and longed to achieve, the biological counterpart of a spiritual dimension in human affairs…[and that humans “sought much of what we seek today—food, sex, shelter, security, comfort, dignity, perhaps transcendence,” p. 290]. The arts were an inadequate compensation for human suffering, for unattained happiness, for lost innocence, but they were and are compensation nonetheless, an offset to natural calamities and to the evil that men do. (p. 296).

“They are one of the remarkable gifts of consciousness to humans,” with the ultimate gift perhaps being “the ability to navigate the future in the seas of our imagination, guiding the self craft into a safe and productive harbor,” along with the “interaction of the self and memory” (p. 296).

In addition to Damasio’s study of the self, Wegner (2002) addresses the issue of conscious will and free will theories, noting that: “the experience of will reminds us that we’re
doing something. Will, then, makes the action our own far more intensely than could a thought alone…[such that] the occurrence of conscious will brands the act deeply, associating the act with self through feeling, and so renders the act one’s own in a personal and memorable way. Will is a kind of authorship emotion” (p. 325). He views conscious will as a feeling, which “might be classed as one of the cognitive feelings,” and the “experience of willing is more than a perception of something outside oneself; it is an experience of one’s own mind and body in action. Now, the body serves as an anchor to thinking in many ways” (p. 326). He cites Damasio’s description of “the general function of emotions as ‘somatic markers,’ deep and unavoidable reminders of the body’s interests in what we do and what we experience” (p. 326). Wegner (2002) avers, “Conscious will is the somatic marker of personal authorship, an emotion that authenticates the action’s owner as the self. With the feeling of doing an act, we get a conscious sensation of will attached to the action…[so that] we “resonate with what we do, whereas we only notice what otherwise happens or what others have done. Thus, we keep track of our own contributions without pencils or tally sheets. Conscious will can be understood as part of an accounting system,” an aid to remembering (p. 327). And this “authorship emotion” then enables a “sense of responsibility,” a “basis for morality,” and achievement and confidence (p. 328). “Conscious will puts the agent self together in the puzzle of life” (p. 329). “Perceived control is usually used to refer to the experience of conscious will in the achievement domain,” and such feelings “are essential for psychological health” (p. 329). It lessens negative effects of actual reductions in control in many areas and makes “people feel and perform better in stressful environments” (pp. 330-331). The “action-specific form of perceived control is really quite like the experience of conscious will…. Self-efficacy seems to be conspicuously missing for actions associated with fears and phobias” (p. 331). Whichever “happens to be our personal cripper, the
essential ingredient in each case is that, in this particular situation, we simply don’t know what to
do and have no memory of doing anything right in the past” (p. 331), resulting in people who are
“likely to attempt little or nothing, [are] the classic dilemma of the underachiever [and can find
themselves on] a road to depression and despair” (p. 332). Wegner (2002) recognizes the
“positive illusion” of the belief or even fantasy of “an inflated perception of control,” yet not the
paradoxical benefits too of “losing one’s illusions” (pp. 332-333), noting Einstein’s view of
relaxing the striving for control and religious traditions “such as Zen Buddhism [that] teach a
philosophy of relinquishing the pretense of control and view a break with the illusion of
conscious will as the ultimate form of enlightenment” (p. 333). But whether embracing or
rejecting “the illusion of control,” the presence and absence of the illusion remain “useful as
clues to what is real” (p. 333).

Addressing responsibility and morality, Wegner (2002) then considers the “legal and
religious free will theories [and] the theory of apparent mental causation” (pp. 334-336).
“Conscious will is the mind’s way of signaling that it might have been involved in causing the
action. The person’s experience of doing the act is only one source of evidence regarding the
actual force of the person’s will in causing the action, however, and it may not even be the best
source” (p. 336). “Illusory or not, conscious will is the person’s guide to his or her own moral
responsibility for action. If you think you willed an act, your ownership of the act is established
in your own mind” (p. 341). “But however we do calculate our complicity in moral actions, we
then experience the emotional consequences and build up views of ourselves as certain kinds of
moral individuals as a result. We come to think we are good or bad on the basis of our authorship
emotion. Ultimately, our experience of conscious will may have more influence on our moral
lives than does the actual truth of our behavior causation” (p. 341).
“Sometimes how things seem is more important than what they are.... The fact is, it seems to each of us that we have conscious will. It seems we have selves. It seems we have minds. It seems we are agents. It seems we cause what we do. Although it is sobering and ultimately accurate to call all this an illusion, it is a mistake to conclude that the illusory is trivial. On the contrary, the illusions piled atop apparent mental causation are the building blocks of human psychology and social life.... The illusion is sometimes fragile.... But behavior does not merely enact whatever has already been thought through and decided. It has its own sources....” (pp. 341-342). “The feeling of doing is how it seems, not what is—but that is as it should be. All is well because the illusion makes us human. Albert Einstein...had a few words on this that make a good conclusion: ‘...So would a Being, endowed with higher insight and more perfect intelligence, watching man and his doings, smile about man’s illusion that he was acting according to his own free will’” (p. 342).

Thus, Damasio (2010) describes the evolutionary development of Self, and Wegner (2002) delves into that Self's will.

c. Decisional Factors and Choice

The foregoing strikes a chord with Iyengar’s (2010) prescription in better decision-making by not wasting energy, focus, or space on trivial matters, but instead focusing our resources on more relevant and higher priority concerns (pp. 212-213). When the Self wills a decision upon multiple choices, it may use various factors.

Iyengar presents a study on car selection. It shows that “people can learn to choose from more options, but will less likely drown if they start off in the shallows and then slowly move toward the deep, all the while building their skills and their nerve” (p. 212). A large choice pool is not “as overwhelming when it occurs near the end of the choosing process, by which point we
have a much clearer vision of the whole…” (p. 212). “If we generally know what kind of car we want to buy…that simplifies the choosing task by eliminating some options and highlighting others. We should, therefore, focus first on the dimensions that are easiest to choose from, whether because they offer fewer options or because we already know what we want, and let these choices guide us through the more difficult dimensions” (pp. 212-213).

Henri Poincare said: “Invention consists in avoiding the constructing of [the] useless [and the] infinite minority. To invent is to discern, to choose” (p. 213). Iyengar inverts this:

“To choose is to invent. What I mean by this is that choosing is a creative process, one through which we construct our environment, our lives, our selves. If we ask for more and more material for the construction, i.e., more and more choice [and information], we’re likely to end up with a lot of combinations that don’t do much for us or are far more complex than they need to be. We’ve worked very hard for choice, and with good reason. But we’ve become so accustomed to producing it and demanding it and producing even more of it, that we sometimes forget to assess when and why it is useful. Managing our expectations is perhaps the most difficult challenge of choice, but one way to do so is to look to those who have shown how constraints create their own beauty and freedom, [such as inventors, artists, and musicians who know the value of constraints on choice and “work within forms and strictures…which they may break only to form new boundaries”]. (p. 213).

“A truly democratic society must, to a certain extent, encourage reactance” (i.e., “our aversion to restrictions on choice,” which can skew or compromise our judgment), which may motivate challenging threats to freedom and stop “acquiescing to totalitarianism” (p. 245). “We can design and adopt strategies that bypass, manipulate, or take advantage of reactance in such a way that they serve our interests without endangering our rights,” which worked well “for Brer Rabbit when he was trapped by his nemesis, Brer Fox” (p. 245). Iyengar alludes to another story when Odysseus in the epic “The Odyssey,” ordered his mates to bind him with ropes to the mast to avoid the influence of the Sirens (p. 250). “It was well known even in ancient Greece that we act against our better judgment with disturbing regularity” and “that we give in to our cravings,” “are constantly confronted by dilemmas of temptation,” and “procrastinate on responsible actions
like saving more and exercising regularly” (p. 251). Thus we might avoid temptations and “should consider lashing ourselves to the mast” (p. 251).

Like Odysseus, we “can similarly choose to relinquish our difficult choices to others, which neatly avoids having to decide between the distress or harm that would result from choosing for ourselves and the diminished autonomy that would result from others’ restricting our choices without our approval” (p. 251). She notes several services already available by those who enable “us to precommit”, with a prearranged “contract out on yourself,” including professor Richard Thaler’s “Save More Tomorrow” program as clever circumventions around our aversions to turn them to our advantage, as well as those embracing a religious code of conduct (pp. 252-254). Iyengar (2010) extols us to “remember that every choice, whether life altering or not, has the potential to leave us anxious or regretful. However, the cumulative results of the diverse array of studies…tell us that we have the power to reduce the exhausting effects of choice, not by expanding our options but by delegating parts of a decision to others or by limiting ourselves in ways that positively affect the choosing process. Specific examples of these strategies include consulting experts,” such as a real-time guides and “information doctors,” or using precommitment programs and services (p. 255).

To connect the prior discussion to the following, I conclude with Iyengar’s and then open with Schwartz’s different quotations, both of Camus. Iyengar (2010) notes: “In our brief labor in this world, we can move the rock by, and with the aid of, choice. If, as Camus claims, ‘[o]ne must imagine Sisyphus happy’ because ‘[t]he struggle itself towards the heights is enough to fill a man’s heart,’ we can either sulk at the bottom of the mountain or reach for the heights and for happiness through choice. In other words, choosing helps us create our lives. We make choices and are in turn made by them. Science can assist us…but…choice remains an art. To gain the
most from it, we must embrace uncertainty and contradiction. It does not look the same to all eyes, nor can everyone agree on its purpose. Sometimes choice pulls us to itself, other times it repels us… We cannot take the full measure of it. Therein lies its power, its mystery, and its singular beauty” (p. 268). Schwartz (2004) also quotes Camus: “‘Should I kill myself, or have a cup of coffee?’ His point was that everything in life is choice. Every second of every day, we are choosing, and there are always alternatives. Existence, at least human existence, is defined by the choices people make [and] we face more choices and more decisions today than ever before” (pp. 42-43).

Similar to Iyengar, Schartz (2004) raises multiple concerns in his aptly-entitled book, The Paradox of Choice, emphasizing that despite the “popular belief” for only the benefits of freedom of choice, it instead wreaks havoc upon our brains, and hence our lives. Three principal problems he identifies involve the shopping or shopping-mall mentality in every area of life (e.g., whether actual shopping for goods and gadgets, clothes and condos, cars and candies, to colleges, college curricula, spouses, careers, religions, and communities, pp. 14-42), being maximizers rather than satisficers (pp. 78-96), and unduly focused on “status” (p. 94) and the rising “material affluence” (pp. 108-109). He suggests strategies to reduce their ill-effects or – consequences to include reducing choices, binding rather than liberating us to choices (pp. 107-108), and importantly, prioritizing and learning to be “selective in exercising our choices. We must decide, individually, when choice really matters and focus our energies there, even if it means letting many other opportunities pass us by. The choice of when to be a chooser may be the most important choice we have to make” (p. 104). What ill-effects? The “epidemic numbers” of depression, dissatisfaction, and unhappiness (pp. 110, 109, 78-79, 44, 5), not to mention the rise of divorce, teen suicide, violent crime, and “our modern malaise” (p. 109),
which in turn “contributes to, and is exacerbated by, a massive increase in levels of stress, stress that in turn contributes to hypertension and heart disease, lowers immune responsiveness, and causes anxiety and dissatisfaction” (p. 109). Schwartz also cites the increasing number of studies, which support that while money matters, it “doesn’t matter as much as you might think” (p. 106). Invariably, the spending and making of money is inextricably tied to the choices of how we spend our time (pp. 110-111). What we humans value most, and serves as the most important factor in providing happiness, is “close social relations” (p. 107), “close attachment,” “deep connections,” or “our social fabric” (p. 110). “[W]e are paying for increased affluence and increased freedom with a substantial decrease in the quality and quantity of social relations. We earn more and spend more, but we spend less time with others. More than a quarter of Americans report being lonely,… not from being alone, but from lack of intimacy” (p. 110). “Most people find it extremely challenging to balance the conflicting impulses of freedom of choice on the one hand and loyalty and commitment on the other” (p. 112).

Schwartz (2004) identifies certain strategies people can use to minimize the overload of information, abundance of choice, and barrage of decision-making. “So by using rules, presumptions, standards, and routines to constrain ourselves and limit the decisions we face, we can make life more manageable, which us more time to devote to ourselves to other people and to the decisions that we can’t or don’t want to avoid” (p. 114), which is of course a beneficial form of deliberate denial. On August 18, 2013, Iyengar stated in an interview on CNN’s Fareed Zakaria (a joint interview also of Kent Greenfield, author of “The Myth of Choice”), that President Obama recently identified his own self-limiting rule of wearing only dark suits, so that he does not consume energy or time on choices of far less importance among the many other daily considerations.
Schwartz (2004) also delves into forms of unhelpful denial, asserting that more choices, more comparisons, added features, opportunity-cost comparisons, and other negative emotions, may accumulate to the point that test subjects avoid making any decision at all, or alternatively diminish their thinking to harm performance (pp. 118-140). This occurred in studies increasing the choices of jams, of selections among essay topics for students, and even the author’s loss of appetite after comparing a dozen Parisian restaurants, in which “each new alternative just reduced the potential pleasure I would feel after I made my choice” (p. 135). Such “cumulative opportunity cost of adding options to one’s choice set can reduce satisfaction…and may even make a person miserable” (p. 135).

One of Schwartz’s numerous conclusions is the following: “Nobody likes to make trade-offs. Nobody likes to watch opportunity costs mount. But the problem of trade-offs and opportunity costs will be dramatically attenuated for a satisficer…and the pain of making trade-offs will be especially acute for maximizers. Indeed, I believe that one of the reasons that maximizers are less happy, less satisfied with their lives, and more depressed than satisficers is precisely because the taint of trade-offs and opportunity costs washes out much that should be satisfying about the decisions they made” (p. 146). And “the problem of regret will loom larger for maximizers than for satisficers,” for whom the stakes are lower (p. 164). In addition to the regret about what we didn’t choose, we also incur the “double whammy” of disappointment with what we did – which process is called the “problem of adaptation” – when “we get used to things and, and then we start to take them for granted” (p. 167), so that “enthusiasm about positive experiences doesn’t sustain itself” (p. 168), and which then most often results in what Brickman and Campbell labeled the “hedonic treadmill”: “No matter how fast you run on this kind of machine, you still don’t get anywhere” (p. 172). Schwartz further suggests that perhaps more
insidious than the hedonic treadmill is “something that Daniel Kahneman calls the ‘satisfaction treadmill’,” so that in such striving one manages to defeat “the inexorable adaptation to commodities and experience, you still have to defeat adaptation to subjective feelings about these commodities and experiences” (pp. 173, 184, 232). Adaptation saddles people with a subjective experience of choices that don’t justify the effort, and then people “begin to see choice not as a liberator but as a burden” (p. 178). While Americans enjoy more control and material abundance than virtually any people on Earth, and though the process of adaptation is “hardwired,” Schwartz notes we can at least anticipate it and mitigate it through gratitude, which improves thinking, energy and likelihood of achieving personal goals (p. 179).

In addition to the plethora of choices in modern society, which while sometimes improving results also yields less satisfaction for the reasons stated above, Schwartz (2004) further analyzes the contributing factors to reduced happiness and satisfaction, and increased suffering and misery. First, social comparisons and “the curse of discernment” and “the curse of high expectations” where rising expectations and aspirations can be counterproductive, choices are improved to keep certain experiences rare and special, by saving them for special occasions (pp. 181-187). “Indeed, social psychologists have found that upward comparisons produce jealousy, hostility, negative mood, frustration, lowered self-esteem, decreased happiness, and symptoms of stress” (p. 188). “People are driven to social comparison largely because they care about status…” (p. 189). Schwartz asserts, “Concern for status is nothing new, nonetheless, I believe that the problem is more acute now than in the past, and once again it comes back to having a plethora of choices” (p. 190). “Our social and economic system, which is based in part on an unequal distribution of scarce and highly desirable commodities, inherently propels people into lives of perpetual social comparison and dissatisfaction, so that reforming people without
paying attention to the system won’t work” (pp. 191-192), which he relates to “positional goods” and “positional competition,” which is stressful, wasteful, and distorts people’s lives (p. 193), which is the keeping-up-with-the-Joneses to be distinctive at least for “everyone who has not gone broke trying to keep up” (p. 194). Such “chain reaction” of pursuing positional goods in competition is why people “can’t help being in the rat race” (p. 194, emphasis added). Studies show “that distraction versus rumination is the critical distinction” between happy and unhappy people when making social comparisons: “Happy people have the ability to distract themselves and move on, whereas unhappy people get stuck ruminating and make themselves more and more miserable” (p. 197). “[S]ocial comparison does nothing to improve one’s satisfaction with the choices one makes” (p. 197). Similarly, Schwartz places much emphasis on the distinction between maximizers and satisficers: “The maximizer becomes a slave in her judgments to the experiences of other people” (p. 198).

Schwartz (2004) suggests,

that with limitless choice, we produce better results with our decisions than we would in a more limited world, but we feel worse about them…. Unlimited choice, I believe, can produce genuine suffering…. The American ‘happiness quotient’ has been going gently but consistently downhill for more than a generation, [as GDP and prosperity doubled in the last thirty years, the “very happy declined” by 5 percent, which I find is more astonishing when comparing Schwartz’s dates of 2004 and 1974, the latter during the Vietnam war, Watergate, economic and riotous conflicts, and geopolitical turmoil, including the Cold War] (201).

“It seems that as American society grows wealthier and Americans become freer to pursue and do whatever they want, Americans get less and less happy” (pp. 201-202).

Schwartz then presents the dark side effects with the “explosive growth” and “epidemic” of depression (p. 209). For example, in only the past ten years, Americans having an episode of clinical depression before they are fourteen has doubled (p. 209). And suicide is rising and “happening younger”—it is the second leading cause of death of American high school and
college students, and it has tripled in the past 35 years among college students (p. 209). These issues of overwhelming choice and information, materialism, affluence, narcissism, depression, and suicide have been subsequently confirmed and reiterated in studies contained in Twenge’s (2006) *Generation Me: Why Today’s Young Americans Are More Confident, Assertive, Entitled—and More Miserable Than Ever Before*, and Twenge and Campbell’s (2010) *The Narcissism Epidemic: Living in the Age of Entitlement*. “Emphasis on freedom of choice, together with the proliferation of possibilities that modern life affords, has, I believe, contributed to these unrealistic expectations” (Schwartz, 2004, p. 210). “Along with the pervasive rise in expectations, American culture has also become more individualistic than it was, perhaps as a by-product of the desire to have control over every aspect of life,” which not only makes us “expect perfection in all things” but also in ourselves and leads to causal explanations on the personal and self-blame (p. 211). “By elevating everyone’s expectations about autonomy and control, mainstream American society has made deep community involvement much more costly than it would be otherwise,” with the related distortions “nowhere more apparent than in the American obsession with appearance” (pp. 212-213).

“Paradoxically, even at a time and place when excessive expectations of and aspirations for control are contributing to an epidemic of depression, those who feel that they have control are in better psychological shape than those who don’t” (p. 215). And “the factors that seem best correlated with national differences in youth suicide rates involve cultural attitudes toward personal freedom and control. Those nations whose citizens value personal freedom and control the most tend to have the highest suicide rates,” so while the “same values [that] allow certain individuals within these cultures to thrive and prosper [also have] a pervasive, toxic effect,” which may explain “a lot of the malaise currently afflicting market democracies” (p. 215).
Schwartz (2004) concludes with a litany of possibly useful strategies, and this acknowledgement: “The ‘success’ of modernity turns out to be bittersweet, and everywhere we look it appears that a significant contributing factor is the overabundance of choice. Having too many choices produces psychological distress, especially when combined with regret, concern about status, adaptation, social comparison, and perhaps most important, the desire to have the best of everything—to maximize” (p. 221). His proposals “aren’t easy” and “require practice, discipline, and perhaps a new way of thinking” (Id.), thus Schwartz erects a strong case that supports the instant thesis of a needed “information doctor” to help guide people, particularly in the “tyranny of choice” (p. 235) articulated by Schwartz.

Like Schwartz (2004), behavioral economist Ariely’s (2008) Predictably Irrational, and (2010) The Upside of Irrationality: The Unexpected Benefits of Defying Logic at Work and at Home, include numerous studies on the psychology of decision-making, marketing, anchoring, adapting, endowment effect, loss aversion, herding, self-herding, placebo effects, and other cognitive attributes. “Like many other aspects of our interesting and curious nature, our tendency to overvalue what we create is a mixed bag of good and bad. Our task is to figure out how we can get the most good and the least bad out of ourselves” (2010, p. 122). Because there is a negative side to such phenomena: “someone who understands how to manipulate another person’s desire for ownership can lead an unsuspecting victim into doing something for him” (p. 122).

Ariely (2010) extensively reviews adaptation studies, hedonic adaptation, and the hedonic treadmill, with largely consistent results and conclusions as Schwartz (2004), and quotes Fyodor Dostoyevsky to emphasize the point: “Man is a pliant animal, a being who gets accustomed to anything” (p. 157). He compares us closely to the frogs in a gradually boiled pot, and cites, as
did Schwartz to the Brickman, Coates, and Janoff-Bulman study on adaptation by paraplegics
and lottery winners (p. 170). Ariely (2010) concludes that we usually get it wrong on both
anticipating and predicting “either the extent or the speed of hedonic adaptation” (p. 171). “[W]e
usually forget to take into account the fact that life goes on and that, in time, other events (both
positive and negative) will influence our sense of well-being,” citing examples of a cellist whose
hand is permanently crushed, and a painter who goes blind (pp. 171-174). “’Time heals all
wounds’ precisely because…you will partially adapt to the state of your world” (p. 174). He also
references the “keeping up with the Joneses” phenomenon in the context of Kahneman’s study of
the mistaken assumptions of Californians and Midwesterners concerning each other (pp. 175-
176). From his counterintuitive results, Ariely identifies “tricks” of not taking breaks for
disliked tasks, taking breaks during pleasurable experiences, “placing limits on our
consumption” (consistent again with Schwartz and Iyengar) to prevent escalation, avoid the
hedonic treadmill, and keep spending under control (pp. 180-181, 186-188), injecting
“serendipity and unpredictability into your life” as well as “randomness” and trying “something
new,” and exerting some control “over what environment” we choose so we do not pick Joneses
to whom we feel bad in comparison (pp. 188-189). We are “all like metaphorical frogs in hot
water. Our task is to figure out how we respond to adaptation in order to take advantage of the
good and avoid the bad” (p. 190).

Ariely (2010) also reveals qualities of our nature. When prompted to think about
calculation, statistical information, and large numbers, we do not feel emotion at the same time.
Hence, we are more likely to donate to the suffering plight of an individual girl, but not to large
numbers killed in a massacre, tsunami, or diseases occurring elsewhere in the world, or to other
large problems. Thus rational thinking “like Mr. Spock can make us less altruistic and caring”
So though it may be irrational, we may “care more about vivid examples,” it does not mean such tendency will help us make better decisions (p. 249). Ariely proposes some possible solutions to such “statistical victim problems,” by the first step of “recognizing there’s a problem,” of coming up with rules or laws “to guide our behavior” (also noted by Schwartz and Iyengar), and of awakening our emotions once “we attach an individual face to suffering, [then] we’re much more willing to help, and we go far beyond what economists would expect from rational, selfish, maximizing agents” (pp. 252-256).

Like Iyengar (2010), Ariely (2010) also cites Sisyphus to address work and the human desire to find meaning in it (p. 77); otherwise, workers “have little desire to put their heart and soul into their labor” (p. 80). He found that acknowledgment, purpose, feeling a sense of completion, and having a sense of the big picture helped provide meaning. “The need to complete goals runs deep in human nature,” if not “hard-wired,” and like Damasio (2010), Ariely (2010) recognizes, “Humans, like most animals and even plants, are maintained by complex arrays of homeostatic mechanisms that keep the body’s systems in equilibrium” (pp. 81, 170-171). “[O]ur results show that even a small amount of meaning can take us a long way” (pp. 81-82, emphasis added).

Ariely (2010) concludes: “It is very difficult to make really big, important, life-changing decisions because we are all susceptible to a formidable array of decision biases” (p. 287). “We have many irrational tendencies…We are often unaware of how these irrationalities influence us…. Ergo, We…need to doubt our intuitions” and “learn to question ourselves and test our beliefs” (p. 288). Ariely says, “Frankly, I am often amazed by the audacity of the assumptions that businesspeople and politicians make, coupled with their seemingly unlimited conviction that their intuition is correct” (pp. 292-293). “The answers aren’t clear. Wouldn’t it be nice if we
realized that, despite all our confidence and faith in our own judgments, our intuitions are just intuitions?” (pp. 293-294, emphasis added). “Looking at irrationality from this perspective suggests that rather than strive for perfect rationality, we need to appreciate those imperfections that benefit us, recognize the ones we would like to overcome, and design the world around us in a way that takes advantage of our incredible abilities while overcoming some of our limitations” (p. 294).

d. Thinking Processes and Nudges

As neuroscientists, behaviorists, psychologists, and philosophers continue learning about the intricacies and interstices of the hodgepodge among feelings, behavior, actions, illusions, and will (see above, Wegner), some scholars have further suggested concepts to aid our analysis of what occurs in our brains. Kahneman (2011) devises the notion of the brain as two selves, two species, and even two systems, or characters of a “psychodrama” (pp. 20, 44). He describes the “workings of the mind as an uneasy interaction between two fictitious characters: the automatic [and “intuitive”] System 1 and the effortful [and “lazy”] System 2” (pp. 415, 44). Like many of Ariely’s (2008, 2010) studies using students at prestigious universities as the subjects, Kahneman also reports research results that the cognitive errors of these top young minds are “shocking” (p. 45), when they took basic quizzes and puzzles. For example, “More than 50% of students at Harvard, MIT, and Princeton gave the intuitive—incorrect—answer [to such puzzles]. At less selective universities, the rate of demonstrable failure to check was in excess of 80%. Consistent with Ariely, these puzzles and studies revealed a “recurrent theme of [Kahneman’s] book: many people are overconfident, prone to place too much faith in their intuitions. They apparently find cognitive effort at least mildly unpleasant and avoid it as much as possible,” in large part because “[o]verriding [the more immediate “intuitive” answer] requires hard work” (p. 45). “This
experiment [of basic syllogisms and logic puzzles] has implications for reasoning in everyday life. It suggests that when people believe a conclusion is true, they are also very likely to believe arguments that appear to support it, even when these arguments are unsound. If System 1 is involved, the conclusion comes first and the arguments follow” (p. 45).

Kahneman (2011) also addresses the Gallup data in comparing and contrasting people’s responses and impacting factors between their well-being in daily experience versus their judgment when evaluating their life. Factors affecting responses include educational attainment, ill health, children, religion, and money and poverty levels (pp. 396-397). “The satiation level beyond which experienced well-being no longer increases was a household income of about $75,000 in high-cost areas…. The average increase of experienced well-being associated with incomes beyond that level was precisely zero. This is surprising because higher income undoubtedly permits the purchase of many pleasures, including vacations,” operas, and improved living environments (p. 397). Evidence purports to show that “priming…with the idea of wealth reduces the pleasure” (p. 397). “There is a clear contrast between the effects of income on experienced well-being and on life satisfaction. Higher income brings with it higher satisfaction, well beyond the point at which it ceases to have any positive effect on experience. The general conclusion is as clear for well-being as it was for colonoscopies: people’s evaluations of their lives and their actual experience may be related, but they are also different. Life satisfaction is not a flawed measure of their experienced well-being, as I thought some years ago. It is something else entirely” (p. 397).

Kahneman (2011) notes instances in which “the remembering self is subject to a massive focusing illusion [also called “focalism” by some] about the life that the experiencing self endures quite comfortably,” ascribing to such a situation a “miswanting to describe bad choices
that arise from errors of affective forecasting,” which “makes us prone to exaggerate the effect of significant purchases or changed circumstances on our future well-being” (p. 406). Citing a German study on marriage, as well as examples of buying a new car or joining a new group, the “focusing illusion creates a bias in favor of goods and experiences that are initially exciting, even if they will eventually lose their appeal. Time is neglected, causing experiences that will retain their attention value in the long term to be appreciated less than they deserve to be” (pp. 398, 406).

The remembering self tells stories and makes choices, but neither properly represents time (p. 407). In storytelling mode, a few critical moments constitute the representations: the beginning, peak, and end. Duration is neglected. The withdrawal of attention and other adaptations (consistent with Schwartz (2004) and Ariely (2010)) to the new state are neglected, as “only that thin slice of time is considered” (p. 407). “The mistake that people make in the focusing illusion involves attention to selected moments and neglect of what happens at other times. The mind is good with stories, but it does not appear to be well designed for the processing of time” (p. 407). “During the past ten years we have learned many new facts about happiness. But we have also learned that the word happiness does not have a simple meaning and should not be used as if it does. Sometimes scientific progress leaves us more puzzled than we were before” (p. 407).

Concluding with his two systems or characters (one of which does the intuitive and fast thinking, and the other of which does the slow and monitoring thinking), two species of fictitious Econs of rational decision-makers and Humans who act in the real world, and two selves (the experiencing self doing the living, and the remembering self keeping score and making the choices), Kahneman (2011) summarizes the implications of our brain’s activities (p. 408). “An
objective observer making the choice for someone else would undoubtedly choose the short exposure, favoring the sufferer’s experiencing self…. It does not make sense to evaluate an entire life by its last moments, or to give no weight to duration in deciding which life is more desirable” (p. 409). “The central fact of our existence is that time is the ultimate finite resource, but the remembering self ignores that reality. The neglect of duration combined with the peak-end rule causes a bias that favors a short period of intense joy over a long period of moderate happiness. The mirror image of the same bias makes us fear a short period of intense but tolerable suffering more than we fear a much longer period of moderate pain” (p. 409). “The remember self’s neglect of duration, its exaggerated emphasis on peaks and ends, and its susceptibility to hindsight combine to yield distorted reflections of our actual experience,” rather than use of a “duration-weighted conception of well-being which treats all moments of life alike, memorable or not” (p. 409). “A theory of well-being that ignores what people want cannot be sustained. On the other hand, a theory that ignores what actually happens in people’s lives and focuses exclusively on what they think about their life is not tenable either. The remembering self and the experiencing self must both be considered, because their interests do not always coincide” (p. 410). These two selves raise questions for philosophers, policy makers, investment decisions, medical treatments, and other implications. “No easy solution is in sight, but the issue is too important to be ignored” (p. 410).

While “Econs” are rational by definition, “there is overwhelming evidence that Humans cannot be,” and Kahneman’s research “showed that Humans are not well described by the rational-agent model” (p. 411). “Although Humans are not irrational, they often need help to make more accurate judgments and better decisions, and in some cases policies and institutions can provide that help” (p. 411, emphasis added). “Freedom is not a contested value…. But life
is more complex for behavioral economists than for true believers in human rationality” (p. 412). Kahneman (2011) then refers to Thaler and Sunstein’s (2008) *Nudge*, taken up next, introducing the words Econs and Humans, and presenting a “set of solutions to the dilemma of how to help people make good decisions without curtailing their freedom [advocating] a position of libertarian paternalism, in which the state and other institutions are allowed to *nudge* people to make decisions that serve their own long-term interests” (pp. 412-413). This might involve “framing [an] individual’s decision” or “choice architecture” using “default options” perceived as normal choices,” such that psychological “powerful forces [e.g., evoking regret, effortful deliberation, taking responsibility, deviating from the normal]…may guide the decision of someone who is otherwise unsure of what to do,” such as in pension default options or increasing savings rates automatically through raises or use of opt outs (pp. 413-414). “A world in which firms compete by offering better products is preferable to one in which the winner is the firm that is best at obfuscation” (pp. 413-414). Evoking Wilson’s (1977) “information doctor,” “Humans, unlike Eons, need help to make good decisions, and there are informed and unintrusive ways to provide that help” (p. 415, emphasis added).

“The investment of attention improves performance in numerous activities—think of the risks of driving through a narrow space while your mind is wandering—and is essential to some tasks, including comparison, choice, and ordered reasoning. However, System 2 is not a paragon of rationality. Its abilities are limited and so is the knowledge to which is has access. We do not always think straight when we reason, and the errors are not always due to intrusive and incorrect intuitions. Often we make mistakes because we (our System 2) do not know any better” (p. 415). “Our thoughts and actions are routinely guided by System 1 and generally are on the mark. One of the marvels is the rich and detailed model of our world that is maintained in
associative memory: it distinguishes surprising from normal events in a fraction of a second, immediately generates an idea of what was expected instead of a surprise, and automatically searches for some causal interpretation of surprises and of events as they take place” (p. 416).

“Memory also holds the vast repertory of skills we have acquired in a lifetime of practice, which automatically produce adequate solutions to challenges as they arise… All of this is System 1, which means it occurs automatically and fast. A marker of skilled performance is the ability to deal with vast amounts of information swiftly and efficiently” (p. 416). “System 1 is not constrained by capacity limits and is profligate in its computations. When engaged in searching for an answer to one question, it simultaneously generates the answers to related questions, and it may substitute a response that more easily comes to mind for the one that was requested” (p. 416).

“System 1 registers the cognitive ease with which it processes information, but it does not generate a warning signal when it becomes unreliable. Intuitive answers come to mind quickly and confidently, whether they originate from skills or from heuristics. There is no simple way for System 2 to distinguish between a skilled and a heuristic response. Its only recourse is to slow down and attempt to construct an answer on its own, which it is reluctant to do because it is indolent” (pp. 416-417). So what can be done about biases and to improve decisions, according to Kahneman? “The short answer is that little can be achieved without a considerable investment of effort,” though we would hope to “recognize the signs that you are in a cognitive minefield, slow down, and ask for reinforcement from System 2, but “this sensible procedure is least likely to be applied when it is needed most” (p. 417). “We would all like to have a warning bell that rings loudly whenever we are about to make a serious error, but no such bell is available, and cognitive illusions are generally more difficult to recognize than perceptual illusions…. More
doubt is the last thing you want when you are in trouble…. Observers are less cognitively busy and more open to information than actors” (p. 417), such as a guide or “information doctor.” Like organizations, institutions, or factories with “useful checklists,… [t]he corresponding stages in the production of decisions are the framing of the problem that is to be solved, the collection of relevant information leading to a decision, and reflection and review,” along with operative concepts of routine, quality control, systematic training, and efficiency (p. 418). “Decision makers are sometimes better able to imagine the voices of present gossipers and future critics than to hear the hesitant voice of their own doubts. They will make better choices when they trust their critics to be sophisticated and fair, and when they expect their decisions to be judged by how it was made, not only by how it turned out” (p. 418).

As emphasized above by Kahneman (2011), Thaler and Sunstein (2008) advocated for the beneficial use of “nudges” by others to improve individual decision-making. Consistent with Kahneman’s point about a potential outcome being framed as a loss having more impact than if it is presented as a gain (2011, p. 414), Thaler and Sunstein showed better results on test subjects when “they received the unhappy emoticon,” or symbol for a non-smiley face (2008, p. 68). Also like Kahneman, Thaler and Sunstein address “priming” (pp. 69-70). “[S]ocial scientists have discovered an odd fact: when they measure people’s intentions, they affect people’s conduct,” or “mere-measurement effect” or “nudge,” and “it can be used by private or public nudgers” (p. 70). For example, and consistent with Thomas Gilbert’s (1978/1996) prescriptions, “[o]ne obvious method is to emphasize the stakes; another is to decrease the cost and burdens, by making it easier for people to get to the [desired action]” (2008, p. 70). “The nudge provided by asking people what they intend to do can be accentuated by asking them when and how they plan to do it,” as a “channel factor” or “small influences that could either
facilitate or inhibit certain behaviors” (for example, a channel akin to a path a river takes when snow melts) (p. 70).

“[T]iny factors can create surprisingly strong inhibitors to behavior that people ‘want’ to take,” and we can “facilitate good behavior by removing some small obstacle than by trying to shove people in a certain direction” particularly with such nudges as looking at maps or making a plan, using one example of getting a tetanus shot (pp. 70-71). Even with these test subjects of Yale seniors, such subtle manipulations resulted in nine times as many students getting their shots, “illustrating the potential power of channel factors,” and “priming” (p. 71). Such priming to change behaviors can occur merely by making certain objects available. Objects characteristic of a business environment, such as briefcases and boardroom tables, made people “more competitive, less cooperative, and less generous” (p. 71). Smells, such as the scent of an all-purpose cleaner, made people “keep their environment cleaner while they eat” (p. 71). “In both cases, people were not consciously aware of the effect of the cue on their behavior. Or consider this one: people’s judgments about strangers are affected by whether they are drinking iced coffee or hot coffee! Those given iced coffee are more likely to see other people as more selfish, less sociable, and well, colder than those who are given hot coffee…. The three social influences that we have emphasized—information, peer pressure, and priming—can easily be enlisted by private and public nudgers [and] both business and governments can use the power of social influence to promote many good (and bad) causes” (p. 71).

Thaler and Sunstein (2008) demonstrate “that people perform amazing feats but also commit ditzy blunders” (p. 72). They argue that the best response is “choice architecture” and “the golden rule of libertarian paternalism” (which some call “asymmetric paternalism”): “offer nudges that are most likely to help and least likely to inflict harm” (p. 72). “A slightly longer
answer is that people will need nudges for decisions that are difficult and rare, for which they do not get prompt feedback, and when they have trouble translating aspects of the situation into terms that they can easily understand” (p. 72). Like Kahneman, they also examine “free markets and open competition” to determine when they “tend to exacerbate rather than mitigate the effects of human frailty. The key point here is that for all their virtues, markets often give companies a strong incentive to cater to (and profit from) human frailties, rather than to try to eradicate them or to minimize their effects” (p. 72).

Thaler and Sunstein (2008) posit a choice scenario. A choice architect must decide how to design a choice environment, what kinds of nudges to offer, and how subtle the nudges should be (p. 73). Among the factors to consider, they note predictable problems that test our capacity for self-control with “benefits now—costs later,” in contrasting investment goods (such as exercise, flossing, and dieting) and sinful goods (smoking, alcohol, and chocolate doughnuts), that are more likely to require more help based on their “degree of difficulty” since “many problems in life are quite difficult” and often there is no technology to make them easy for us (such as picking the right mortgage than choosing the right loaf of bread), that are rare, difficult choices with less “frequency” thus making them good candidates for nudges since practice opportunities for many high-stakes decisions do not afford practicing to make them easier, and that do not provide immediate, clear “feedback” after each try to allow for learning (long-term “processes rarely provide good feedback,” and when “feedback does not work, we may benefit from a nudge”) (pp. 74-75). And finally, there is the factor of “knowing what you like”: “When people have a hard time predicting how their choices will end up affecting their lives, they have less to gain by numerous options and perhaps even by choosing for themselves. A nudge might
be welcomed” (pp. 75-76). Like Kahneman, Schwartz, and Ariely, Thaler and Sunstein recognize the human propensity toward such adaptations.

Thaler and Sunstein (2008) address such factors in the context of multiple topics, including retirement savings, investing, credit, Social Security solvency, healthcare, school choice, and marriage. For example, they note that in “2005 the personal savings rate for Americans was negative for the first time since 1932 and 1933—the Great Depression years…. For many Americans, savings rates, especially retirement savings, are woefully low, if not zero…. The fact that many people are not saving for retirement exacerbates the looming problems facing the Social Security system [and that] we will eventually have to bite the bullet in order to make Social Security solvent… Americans would be better able to deal with this problem if they were saving more on their own” (p. 103).

e. A Combination to Self

Echoing Kahneman (2011), Eagleman (2011) contends that “over the past century, neuroscience has shown that the conscious mind is not the one driving the boat. A mere four hundred years after our fall from the center of universe [with Galileo in 1610], we have experienced the fall from the center of ourselves. In the first chapter we saw that conscious access to the machinery under the hood is slow, and often doesn’t happen at all. We then learned that the way we see the world is not necessarily what’s out there: vision is a construction of the brain [as described by Chuchland (1995)], and its only job is to generate a useful narrative at our scales of interactions (say, with ripe fruits, bears, and mates)” (pp. 193-194). In the wake of “all the scientific progress,” Eagleman notes the many philosophers who strove “to salvage some sort of purpose” (pp. 194-195). Quoting Leslie Paul, “All life will die…as if it had never happened…. All life is no more than a match struck in the dark and blown out again. The final
result…is to deprive it completely of meaning” (p. 194). Then theologian E.L. Mascall, “The difficulty which civilized Western man in the world today experiences is in convincing himself that he has any special assigned status in the universe…. Many [common] psychological disorders [can be] traced to this cause” (p. 195). So too, Camus, man’s search for meaning engendered his “absurdist” philosophy, which in a meaningless world, “one should live to revolt against the absurd life, even though it will always be without hope” (p. 195). Eagleman instead sees advances which “open up something bigger than us,” and that “reality far outstrips human imagination and guesswork” (p. 195). And this has implications to improve social policy (p. 196). Like Kahneman (2011), Gilbert (1978/1996), and Thaler and Sunstein (2008), among a growing number, Eagleman (2011) posits that “an understanding of the brain matters for structuring incentives” (p. 196), citing examples of diet plans and individual retirement accounts, because this structure “allows people in a moment of sober reflection to recruit support against their short-term decision making” (p. 197). Eagleman’s analysis sees a “team-of-rivals framework” of the brain, analogous to engine and brakes. Such an “under the hood” view is a nuanced framework to consider a “more nuanced battle between different brain regions and how the battle tips” (p. 197).

Citing Montaigne, Emerson, and Niels Bohr, Eagleman (2011) inquires into what this means for understanding our own lives, concluding “Much of who we are remains outside our opinion or choice…. Your most fundamental drives are stitched into the fabric of your neural circuitry, and they are inaccessible to you. You find certain things more attractive than others, and you don’t know why” (pp. 199-200). Examining various damage to people’s brains, “The lesson from all these cases is the same: the condition of your brain is central to who you are” (pp. 202-203). “All of this leads to a key question: do we possess a soul that is separate from
our physical biology—or are we simply an enormously complex biological network that mechanically produces our hopes, aspirations, dreams, desires, humor, and passions? The majority of people on the planet vote for the extrabiological soul, while the majority of neuroscientists vote for the latter: an essence that is a natural property that emerges from a vast physical system and nothing more besides” (pp. 203-204, emphasis added). The materialist model and a version of it, reductionism, may be argued using examples of brain damage and narcotics, so that “We are slave to these molecules” (p. 204), with “the lesson [that] who you are depends on the sum total of your neurobiology” (p. 205). “Neurotransmitters” and “hormones” both influence your cognition (p. 206). For any person, “what we think of as her is something like a time-averaged version” (p. 207). “All this adds up to something of a strange notion of a self…. Our internal life and external actions are steered by biological cocktails to which we have neither immediate access nor direct acquaintance” (p. 207). “Our reality depends on what our biology is up to. Influence on your cognitive life also include tiny nonhuman creatures: microorganisms…” (p. 208).

The critical take-home lesson is that invisibly small changes inside the brain can cause massive changes to behavior. Our choices are inseparably married to the tiniest details of our machinery…. Given these facts on the ground, it is far from clear that we hold the option of ‘choosing’ who we would like to be…. Who you turn out to be depends on such a vast network of factors that it will presumably remain impossible to make a one-to-one mapping between molecules and behavior… Nonetheless, despite the complexity, your world is directly tied to your biology. If there’s something like a soul, it is at minimum tangled irreversibly with the microscopic details. Whatever else may be going on with our mysterious existence, our connection to our biology is beyond doubt. From this point of view, you can see why biological reductionism has a strong foothold in modern brain science. But reductionism isn’t the whole story (pp. 208-209, emphasis added).

For example, the Human Genome Project did not provide the anticipated breakthrough (“we didn’t learn what we thought we might”), and thus forced us “to acknowledge that successive levels of reduction are doomed to tell us very little about the questions important to humans” (p.
210), that is, “knowledge of the genes alone is not sufficient to tell you much about behavior” (p. 212). Reviewing the studies, Eagleman finds the “same important lesson: a combination of genetics and environment matters for the final outcome” (p. 213), confirmed by that surprising result when evaluating participants predisposed to depression, those subjected to abusive parents, and those diagnosed with antisocial personality disorder (p. 214-215). “When it comes to the nature versus nurture question, the answer almost always includes both” (p. 216, emphasis added).

[Y]ou choose neither your nature nor your nurture, much less their entangled interaction. You inherit a genetic blueprint and are born into a world over which you have no choice throughout your most formative years…. These are not choices; these are the dealt hands of cards…. The point…is to highlight the fact that the machinery that makes us who we are is not simple, and that science is not perched on the verge of understanding how to build minds from pieces and parts. Without a doubt, minds and biology are connected—but not in a manner that we’ll have any hope of understanding with a purely reductionist approach. (p. 216, emphasis added).

“Reductionism has been the engine of science since before the Renaissance. But reductionism is not the right viewpoint for everything, and it certainly won’t explain the relationship between the brain and the mind. This is because of a feature known as emergence … the whole can become something greater than the sum…. The concept of emergent properties means that something new can be introduced that is not inherent in any of the parts” (p. 217). “When we talk about ‘the brain’ and behavior, this is a shorthand label for something that includes contributions from a much broader sociobiological system. The brain is not so much the seat of the mind as the hub of the mind” (p. 219, emphasis added).

[T]he game is to act as though science is just on the brink of figuring everything out…to pretend as though the major problems are about to be solved at any moment. But the truth is that we face a field of question marks, and this field stretches to the vanishing point. This suggests an entreaty for openness while exploring these issues (p. 220). At this moment in history, the majority of the neuroscience community subscribes to materialism and reductionism, enlisting the model that we are understandable as a collection of cells, blood vessels, hormones, proteins, and fluids—all following the basic laws of chemistry
and physics… But we don’t have any real guarantee that this approach will work in neuroscience. *The brain, with its private, subjective experience, is unlike any of the problems we have tackled so far.* (pp. 222-223, emphasis added).

“Any neuroscientist who tells you we have the problem cornered with a reductionist approach doesn’t understand the complexity of the problem. Keep in mind that every single generation before us has worked under the assumption that they possessed all the major tools for understanding the universe, and they were all wrong, without exception” (pp. 222-223, emphases added).

f. A Combination to Darwinian Consciousness

In *Freedom Evolves*, Dennett (2003) takes a naturalistic or Darwinian approach to explain consciousness, choice, decision-making, the brain, and the mind (pp. 306-308). “Human consciousness was made for sharing ideas. This is to say, the human user-interface was created by evolution, both biological and cultural [see, Watts (2002)], and it arose in response to a behavioral innovation: the activity of communicating beliefs and plans, and comparing notes. This turned many brains into minds, and the distribution of authorship made possible by this interconnectedness is the source of not only our huge technological edge over the rest of nature but our morality. The last step required to complete my naturalistic account of free will and moral responsibility is to explain the R&D that has given us each a perspective on ourselves, a place from which to take responsibility” (2003, p. 259). This is not unlike Watts’s (2002) take on the impact of memes to influence our thinking (p. 22). “Darwin himself drew our attention to the importance of what he called unconscious selection as an intermediate step between natural selection and what he called methodical selection: the deliberate, foresighted, intended ‘improvement of the breed’ by animal and plant breeders. Darwin pointed out that the line between unconscious and methodical selection was itself a fuzzy, gradual boundary…. We can
use Darwin’s three levels of genetic selection, plus our more recent fourth level, genetic engineering, as a model for four parallel levels of memetic selection in human culture [of naturally, unconsciously, and methodically selected, and the memetic engineering in the present day ‘to design and spread whole systems of human culture, ethical theories, political ideologies, systems of justice,’ etc.]” (pp. 265-266). We are creatures who use the “thinking tools that our cultures install in us during childhood and beyond,” to enhance “our underlying instincts with prosthetic devices that tend to encourage framing the situations we confront in one way or another” (p. 266-267).

Akin to Wilson’s (1977) proposed “information doctors,” Dennett (2003) identifies “psychic engineers” who would be “charged with designing our norms for an advantage we recognize together” (p. 267, emphasis added, quoting Allan Gibbard, *Wise Choices, Apt Feelings*). “We can hope to replace an equilibrium of sheer replicative power with a *reflective equilibrium* of rational agents who have engaged in the communal activity of mutual persuasion. This shift from undirected trial and error to intelligent (re)-design is, I have suggested, a major transition in evolutionary history, opening up literally undreamed-of dimensions of opportunity, for good or ill” (p. 267):

Until the birth of ethics, Darwinian R&D had proceeded for billions of years without any foresight, …. Wherever lineages found themselves on local peaks of the adaptive landscape, … more remote questions about what the point of living might be and how it might best be achieved were inexpressible until we came along, [who can] imagine the adaptive landscape of possibilities beyond the physical landscape, who can ‘see’ across the valleys to other conceivable peaks…. Our evolved capacity to reflect gives us…both the opportunity and the competence to evaluate the ends, not just the means. ... We gather information relevant to [such design problems with the hope they carry ‘us to higher summits’], explore variations on them, and debate their merits knowing that our reflections will actually help determine which trajectory our future holds” (pp. 267-268). “One of our most pressing tasks, as psychic engineers, is to see if we can secure the fundamental concept of a responsible moral agent, an agent who…chooses freely for considered reasons and may be held morally accountable for the acts chosen… [B]ut we
also need to examine more closely how an individual might be able to grow into such an
exalted role. (p. 268, emphasis added).

It instead appears “from psychologists [and Allen Funt on Candid Camera, not to mention
Ariely’s (2010) studies] that we are actually a far cry from the rational agents we pretend to be”
(pp. 268-269). “When we discover our imperfect rationality, our susceptibility to being moved
in the space of reasons by something other than consciously appreciated reasons, we fear that we
aren’t free after all…. Perhaps our approximation of a perfect Kantian faculty of practical reason
falls so far short that our proud self-identification as moral agents is a delusion of grandeur” (p.
269). “As we learn more and more about human weaknesses and the way the technologies of
persuasion can exploit them, it can seem as if our vaunted autonomy is an unsupportable myth”
(p. 270). As William James said, “Reason is the weakest of our faculties” (Boyd, 2005, July 3).
Our environment “has been being updated ever since the dawn of civilization…to ease the
burdens on us imperfect decision-makers. We happily lean on the prostheses that we find
valuable…but tend to begrudge those that others need” (pp. 270-271). “We are actually
wonderfully rational…. But how do we get good enough at this to make the team? A good
answer to this question must fend off paradox on all sides…. Boundaries created by
evolutionary processes tend to be porous and gradual, with intermediate cases bridging the
chasms between the Haves and the Have-nots, but we cannot go along with Mother Nature’s
refusal to categorize all the way down,” but in our systems we draw lines between those morally
responsible and those excused who “don’t make the grade” (p. 271, emphasis added). “With a
little bit of luck, and a little help from your friends, you put your considerable native talent to
work, and bootstrapped your way to moral agency, inch by inch” (p. 273). After all, we “stand
on the shoulders of giants.”
The quest for personhood is something of a team effort, with coaches and supporters playing important roles on the sidelines, enriching the environment with a kind of scaffolding designed (unconsciously) to bring out the best in us. More important than the supply of developmentally appropriate toys, and even proper nutrition, is the set of ambient attitudes and policies a child observes and eventually participates in, [with] a body of evidence...that children...tend to perpetuate ...character traits [to which they are exposed]. Upbringing does make a big difference (p. 276, emphasis added). Because we human beings are not blind watchmakers, but sighted selfmakers, who moreover can reflect on what we see and draw inferences about what we wish to see in the future, we are much more readily redesigned, first by others, and then by ourselves, than any other organism yet evolved on the planet.... The ‘presentation of self in everyday life’...is an elaborately (but mostly unconsciously) choreographed interactive dance.... [I]f done with discernment and understanding, some tampering could strengthen and enhance those designs, making up for missed opportunities or blurred perceptions. Moreover, some deliberate intervention might help extinguish any unfortunate variants of our practices that can be seen to be self-defeating. This is where our evolved capacity for reflection comes into its own (pp. 277-278, emphases added). Like everything else evolution has created, we’re a somewhat opportunistically contrived bag of tricks, and our morality should be based on that realization. (p. 280).

“The account I have sketched of the art of self-making shows it to include an unsettling amount of unconscious or subliminal manipulation along with the exercise of ‘pure reason,’” which Alfred Mele contrasts from autonomy as heteronomy in which “a self-controlled agent is nevertheless also under the (partial) control of others, distinguishing between good education, dubious propaganda, and bad brainwashing, or between a little help from your friends and being taken for a ride (p. 281, emphasis added). “A person can want one thing but want something else—and act on that second-order desire. Such a capacity to reflect on, and endorse or reject, the desires one discovers in oneself is not just a symptom of maturity...it is a criterion of personhood” (p. 285). “The agent’s role, according to [Harry] Frankfurt, is to reflect on the motives competing for governance of his behavior, and to determine the outcome of the competition, by taking sides with some of his motives rather than others... How can a person take sides with, or against, some of his or her own motives?” (p. 285). An example “reminiscent of some of Daniel Wegner’s experiments [suggests that] a submerged, only partly or even
entirely unconscious conspiracy of motives, reasons, recognitions, and the like shapes the action…” (p. 285). “It can only be, as Kant said long ago, a respect for reason itself: ‘What animates practical thought is a concern for acting in accordance with reasons’” (p. 286). “And where does this come from? From the upbringing that engages the child in the practice of demanding and giving reasons. The role of consciousness here is precisely to move the issue into the arena of deliberation and consideration, where over time the reasons for and against can be considered and negotiated” (p. 286). “The self is a system that is given responsibility, over time, so that it can reliably be there to take responsibility, so that there is somebody home to answer when questions of accountability arise” (p. 287).

As we learn more “about how people make up their minds” (p. 289), we might question whether humanity shows “progress” or “going soft,” “erosion” or “growing enlightenment” (pp. 289-290). “It looks to an evolutionist like a rolling equilibrium, never quiet for long, the relatively stable outcome of a series of innovations and counter-innovations, adjustments and meta-adjustments, an arms race that generates at least one sort of progress: growing self-knowledge, growing sophistication about who we are and what we are, and what we can and cannot do. And from this self-understanding, we fashion and re-fashion our conclusions about what we ought to do” (p. 290).

g. History and Holistic View of Deciding

Lehrer (2009) reports as a journalistic summary much of the philosophic and scientific bases expounded in the neuroscience field, which expand like Eagleman (2011) toward a more holistic than reductionist view of the brain. “With that single metaphor [of a chariot pulled by two horses], Plato divided the mind into two separate spheres. The soul was seen as conflicted, torn between reason and emotion” (p. 10).
Rene Descartes, the most influential philosopher of the Enlightenment, agreed with this ancient critique of feeling. Descartes divided our being into two distinct substances: a holy soul capable of reason, and a fleshy body full of “mechanical passions.” What Descartes wanted to do was purge the human intellect of its falsehoods, to get beyond the illogical beliefs of the past. In his seminal work, the awkwardly titled Discourse on the Method for Properly Conducting Reason and Searching for Truth, Descartes tried to provide an example of rationality in pure form. His goal was to lead humanity out of the cave, to reveal the ‘clear and distinct’ principles that our emotions and intuitions obscure. (pp. 10-11).

“The Cartesian faith in reason became a founding principle of modern philosophy…. Over time, a variety of influential thinkers tried to translate this binary psychology into practical terms [including Francis Bacon, Auguste Comte, Thomas Jefferson, and Immanuel Kant]…. The twentieth-century version of the Platonic metaphor was put forth by Sigmund Freud. Although Freud liked to say that he spent his life destroying illusions, his basic view of the mind differed little from Plato’s” (p. 11).

“But modern science soon hit on a new metaphor: the mind was a computer. According to cognitive psychology, each of us was a set of software programs running on three pounds of neural hardware. While this computer metaphor helped stimulate some important scientific breakthroughs—it led to the birth of artificial intelligence, among other things—it was also misleading, at least in one crucial respect. The problem with seeing the mind as a computer is that computers don’t have feelings” (p. 12). “Because emotions couldn’t be reduced to bits of information or the logical structures of programming language, scientists tended to ignore them. ‘Cognitive psychologists subscribed to this false ideal of rational, logical thought, and so we diminished the importance of everything else,’ says Marvin Minsky, a professor at MIT and a pioneer of artificial intelligence” (p. 13).

“But this classical theory [of a mythical utopian society, a republic of pure reason] is founded upon a crucial mistake. For too long, people have disparaged the emotional brain,
blaming our feelings for all of our mistakes. The truth is far more interesting. What we discover when we look at the brain is that the horses and the charioteer depend upon each other. If it weren’t for our emotions, reason wouldn’t exist at all” (p. 13). In Descartes’ Error, studying his “emotionless patients” and compiling “a map of feeling,” neurologist Antonio Damasio identified a small circuit of tissue called the “orbitofrontal cortex” (OFC) in the brain that seemed particularly important to the process of generating emotions (p. 16). “[I]t is responsible for integrating visceral emotions into the decision-making process. It connects the feelings generated by the ‘primitive’ brain—areas like the brain stem and the amygdala, which is in the limbic system—to the stream of conscious thought” (p. 18). “The crucial importance of our emotions—the fact that we can’t make decisions without them—contradicts the conventional view of human nature, with its ancient philosophical roots,” including for most of the twentieth century with its ideal of rationality and its envisioning the brain as consisting of four separate layers stacked in ascending order of complexity: brain stem, diencephalon, limbic region, and the “masterpiece of evolution” of the frontal cortex (p. 17).

But this anatomical narrative is false. The expansion of the frontal cortex during human evolution did not turn us into purely rational creatures, able to ignore our impulses. In fact, neuroscience now knows that the opposite is true: a significant part of our frontal cortex is involved with emotion. David Hume, the eighteenth-century Scottish philosopher who delighted in heretical ideas, was right when he declared that reason was “the salve of the passions.” (p. 17).

“The world is full of things, and it is our feelings that help us choose among them…. From the perspective of the human brain, Homo sapiens is the most emotional animal of all” (p. 18).

[T]he uniquely human areas of the mind depend on the primitive mind underneath. The process of thinking requires feeling, for feelings are what let us understand all the information that we can’t directly comprehend. Reason without emotion is impotent. One of the first scientists to defend this view of decision-making was William James, the great American psychologist. In his seminal 1890 textbook The Principles of Psychology, James launched into a critique of the standard “rationalist” account of the human mind. “Man has a far greater variety of impulses than any other lower animal.” In other words,
the Platonic view of decision-making, which idealized man as a purely rational animal defined “by the almost total absence of instincts,” was utterly mistaken. James’s real insight, however, was that these impulses weren’t necessarily bad influences. In fact, he believed that “the preponderance of habits, instincts and emotions” in the human brain was an essential part of what made the brain so effective. According to James, the mind contained two distinct thinking systems, one that was rational and deliberate and another that was quick, effortless, and emotional. (pp. 26-27).

The key to making decisions, James said, was knowing when to rely on which system” (pp. 26-27), as also asserted by or related to the later publication by Kahneman (2011), addressed previously.

A.P. Dijksterhuis, a psychologist at the University of Amsterdam, “wanted to see if letting people engage in unconscious decision-making…could lead to make even better decisions” (p. 236).

The answer, it turns out, is a resounding yes. Consciously contemplating the posters [which were interrupted by “a series of anagrams”] once again led to the worst decisions…. But the most satisfied subjects were those who let the poster options marinate in their unconscious brains for several minutes and then chose on the basis of which poster was associated with the most positive emotions. Dijksterhuis speculates that art posters benefit from such subterranean thought processes because they are complex choices requiring people to interpret their own subjective desires” (p. 236). “We often make decisions on issues that are exceedingly complicated. In these situations, it’s probably a mistake to consciously reflect on all the options, as this inundates the prefrontal cortex with too much data. ‘The moral of this research is clear,’ Dijksterhuis says…. “Use your conscious mind to acquire all the information you need for making a decision. But don’t try to analyze the information with your conscious mind. Instead, go on holiday while your unconscious mind digests it. Whatever your intuition then tells you is almost certainly going to be the best choice. (pp. 236-237).

Dijksterhuis argues,

that this psychological principle has far-reaching consequences…. As long as someone has sufficient experience in that domain – he’s taken the time to train his dopamine neurons—then he shouldn’t spend too much time consciously contemplating the alternatives. The hardest calls are the ones that require the most feeling…. (pp. 236-237).

“But the conventional wisdom about decision-making has got it exactly backward. It is the easy problems—the mundane math problems of daily life—that are best suited to the conscious brain.
The simple decisions won’t overwhelm the prefrontal cortex. In fact, they are so simple that they tend to trip up the emotions, which don’t know how to compare prices or compute the odds of a poker hand. (When people rely on their feelings in such situations, they make avoidable mistakes, like those due to loss aversion and arithmetical errors.) Complex problems, on the other hand, require the processing powers of the emotional brain, the supercomputer of the mind. This doesn’t mean you can just blink [likely an allusion to *Blink* by Galdwell (2005), addressed below] and know what to do—even the unconscious takes a little time to process information—but it does suggest that there’s a better way to make difficult decisions. When choosing a couch, or holding a mysterious set of cards, always listen to your feelings. They know more than you do” (pp. 237-238). “Michael Binger started winning poker tournaments once he realized that the game was more than a math problem…. Sometimes he had to play the odds. And sometimes he had to trust his gut” (pp. 238-239).

“This insight doesn’t apply to poker alone. Look, for instance at the financial markets…. The only way for anyone to succeed over the long term is to use both brain systems in their proper contexts. We need to think and feel. A few years ago, Andrew Lo, a business professor at MIT, wired ten currency speculators and stock traders at a brokerage firm with sensors…” (p. 239). “In order to make the right investment decisions, the mind needs emotional input, but those emotions need to exist in a dialogue with rational analysis…. ‘There’s an ideal range of emotional responses that professional securities traders seem to exhibit, and that’s an insight that we think individual investors can benefit from’” (pp. 239-240). The best investors, like the best poker players, are able to find that crucial mental balance. They constantly use one brain system to improve the performance of the other” (p. 240). Lehrer noted the “ancient metaphor made famous by historian Isaiah Berlin in his essay “The Hedgehog and the Fox’” (p. 241). The
hedgehog’s only defense is to roll itself into a ball (pp. 241-242). A fox instead adjusts its strategy to fit the particulars of the situation (p. 241).

[A] hedgehog is prone to bouts of certainty—the big idea is irrefutable—and this certainty causes him to misinterpret the evidence. If the amygdala contradicts one of his conclusions—it’s worrying about some bit of evidence that doesn’t support the pundit’s accepted worldview—then the amygdala is turned off. A diversity of brain regions isn’t brought to bear on the problem. Useful information is deliberately ignored. The inner argument is badly argued…. While the hedgehog reassures himself with certainty, the fox relies on the solvent of doubt. He is skeptical of grand strategies and unifying theories. The fox accepts ambiguity and takes an ad hoc approach when coming up with explanations. The fox gathers data from a wide variety of sources and listens to a diversity of brain areas. The upshot is that the fox makes better predictions and decisions. But being open-minded isn’t enough. …[T]he most important difference between fox thinking and hedgehog thinking is that the fox thinker is more likely to study his own decision-making process…such introspection is the best predictor of good judgment. Because foxes pay attention to their inner disagreements, they are less vulnerable to the seductions of certainty. (pp. 242-243, emphases added).

“We can now start to sketch out a taxonomy of decision-making, apply the knowledge of the brain to the real world. We’ve seen how the different brain systems—the Platonic driver and his emotional horses—should be used in different situations. While reason and feeling are both essential tools, each is best suited for specific tasks. When you try to analyze a strawberry jam or feel your way to a vegetable peeler, you are misusing your machine. When you’re certain that you’re right, you stop listening to those brain areas that say you might be wrong” (p. 243). “The science of decision-making remains a young science. Researchers are just beginning to understand how the brain makes up its mind. The cortex remains a mostly mysterious place, an extraordinary yet imperfect computer” (pp. 243-244). “Future experiments will reveal new aspects of human hardware and software. We’ll learn about additional programming bugs and cognitive talents. The current theories will undoubtedly get complicated. And yet, even at the dawn of this new science, it’s possible to come up with a few general guidelines that can help us all make better decisions” (p. 244).
Like Thaler and Sunstein (2008), Lehrer (2009) elucidates some basic rules or factors in trying to exercise when the prefrontal cortex—or what he calls the monitoring “rational brain”—should be engaged deliberately, rather than leaving decisions to instincts or the “emotional brain” (p. 244): use for simple problems or issues, and “[t]hink less about items that you care a lot about. Don’t be afraid to let your emotions choose” for important decisions (p. 245); for novel or unprecedented problems (happy people and in good moods solve problems better with “the flexible neurons of the prefrontal cortex” because they aren’t worrying about why you’re not happy and are free to solve the problem) (pp. 246-247); for embracing uncertainty (more on this below with Michel (2009)), so that pretending the “mystery is erased” does not result in the “dangerous trap of certainty” and thus it is “essential to extend the decision-making process,” be your “own devil’s advocate,” and “remind yourself of what you don’t know” (p. 247); for knowing more than you don’t know, which is that paradox of the human mind in that it doesn’t know itself very well, which is “why people have emotions” as the “windows into the unconscious, visceral representations of all the information we process but don’t perceive” (p. 248). “The emotional brain is especially useful at helping us make hard decisions,” with massive computational power to process millions of bits of data in parallel” (p. 248). And as a final guideline, Lehrer (2009) offers, “Think about thinking. If you’re going to take only one idea away from this book, take this one: Whenever you make a decision, be aware of the kind of decision you are making and the kind of thought process it requires” (pp. 249-250). Studying cockpit and surgical teams, resource management systems significantly improved decision making by creating “an environment in which a diversity of viewpoints was freely shared” (p. 253), the “wisdom of crowds” was applied (p. 254), encouraging teams to think together, deter
certainty, and stimulate debate where diversity of opinions is openly shared (pp. 255-256), to both prevent mistakes and lead to startling new insights (p. 256).

h. Use of Doubt and Uncertainty

Consistent with Lehrer’s (2009) above emphasis on “embracing uncertainty,” Michel et al. (2009) conducted a comprehensive academic study on the concept of embracing uncertainty. She and her team analyzed investment bankers at two firms she labeled Individual Bank and Organization Bank, distinguishing between two major psychological approaches of identity-induced involvement and direct involvement, which engendered transformative outcomes during a six-month period. Contrary to the traditional and conventional views, Michel et al. argue that the direct involvement approach achieved much better performance due to its focus on the situation rather than the individual. She argues from the counterintuitive position that this approach gains advantages due to uncertainty, chaos, and lack of expertise, rather than the “superstar culture” of identity-induced involvement (pp. 223, 244). The resulting characteristics arising from direct involvement include and produce adaptability, collaboration, ad hoc conversations, fungible staffing, limited training, no-superstar culture, concrete focus on situations rather than self-interest, and eliciting greater use of full organizational resources to address a complexity which would overwhelm an individual (pp. 218-223). It involves a resource-rich setting of an organization, such that “you constantly become more unsure of what you know and watch more parameters with suspicion” (p. 224), as a completely different approach to cognition that does not apply stable concepts to a class of situations but instead opens the person to the specifics of a situation (p. 225). It uses “abductive” thinking (i.e., who a person was and what a person thought were all shaped by the specific aspects of particular situations, with the goal to figure out whom else to involve and what to do next in the situation)
It “does not focus on specific concepts [but involves] a more fundamental [and general] attitude toward individuals’ limitations and their inability to predict the environment” (p. 225). Seeking instead to “clear away the self,” it seeks to involve interdependent and mutually reinforcing practices, which can “disrupt the accumulation of concepts” and “catalyze a previously unknown developmental trajectory, one that moves people toward a sociocentric way of thinking, feeling, and acting in concert with others and the affordances of particular situations” (pp. 226-227, emphasis added). Rather than the typical view as a “universal prototype” and assuming “that becoming an expert involves acquiring and storing more and better information,” the “direct involvement” approach of “abductive” thinking argues that “when people experience uncertainty as a more general, persistent inability to understand the environment, it does not make sense to learn different concepts for future application [but] to distrust both existing concepts and the resources of an individual mind. They learned, instead, to suspend their existing concepts and draw on a diverse set of resources tailored to particular situations, including but not limited to their own concepts” (p. 226). Michel et al. (2009) argue: “clearing away the self reduces cognitive rigidity” (p. 227).

Once freed from the “superstar mentality,” “abstract identities trap,” and “identity-induced compulsions,” a person “is less likely to experience situations as predictable and less likely to employ monolithic cognitive, emotional, motivational, and behavioral responses” (pp. 244-245). “In direct involvement [to the contrary], people notice more decision making cues and thus break situations down,” responding “to situational demands, he or she distributes decision making responsibility across a diverse set of psychological and social resources” (p. 245). “Situations unfold in relatively unique ways partly because of the diversity of the resources contained in them. These resources also interact with one another,” so rather than “a way that
silences their contributions,” resources are used in a way that “lets situations play out as a
conversation between the voices of other people, objects, and task constraints,” which “can yield unexpected, emergent possibilities than cannot be anticipated by any one person’s expectations” (p. 245). Thus “Organization Bankers were free from the compulsion to project a relatively stable psychological template onto situations” and “experienced more situational diversity” (p. 245). “Freedom from the self also has paradoxical elements. It is a ‘freedom to be dominated by the object.’ Direct involvement is about being free from one’s preconceived notions, from fear for one’s own self, so that one can notice and submit to the affordances of situations” (p. 246, emphasis added) (citations omitted). “This framing removes part of the stigma that ‘constraint’ carries in a more individualist framework, where it is seen as an impediment to the person’s agency” (p. 246). Even the “Organization Bankers entered [the study] seeking freedom for the self,” not from the self, as “they wanted to become a certain type of socially recognizable person—the accomplished and competent Wall Street expert” (pp. 246-247). But as this was “undermined,” unbeknownst to them, “the bankers might have been forced into the only freedom possible” (p. 247).

i. Blinking and Thinking

Gladwell (2005) adjures to the holistic approach and dependence of emotional and subconscious thinking, to deciding. “What does the Iowa experiment [of a gambling game using decks of cards] tell us? That in those moments, our brain uses two very different strategies to make sense of the situation. The first is the one we’re most familiar with. It’s the conscious strategy. We think about what we’ve learned, and eventually we come up with an answer. This strategy is logical and definitive…. It’s slow, and it needs a lot of information. There’s a second strategy, though. It operates a lot more quickly…. and it’s really smart, because it picks up the
problem [posed by the game] almost immediately. It has the drawback, however, that it operates—at least at first—entirely below the surface of consciousness. It sends its messages through weirdly indirect channels, such as the sweat glands in the palms of our hands. It’s a system in which our brain reaches conclusions without immediately telling us that it’s reaching conclusions” (p. 10).

LeGault (2006), however, challenges some of Gladwell’s (2005) assertions. “Sharp, incisive, clever thinking is steadily becoming a lost art, more and more the domain of specialists and gurus. The trend is troubling and raises the question, Is America losing its ability to think? If, for argument’s sake, we define thinking as the use of knowledge and reasoning to solve problems and plan and produce favorable outcomes, the answer is, apparently, yes. Consider the sober assessment of John Bardi, a lecturer at Penn State who has been teaching university students a variety of philosophy and cultural study courses for over twenty-five years. In a 2001 essay about the decline of critical thinking, Bardi states, ‘The intellectual qualities I see displayed in my classes…are getting worse every year, with the current crop [of students] being the worst.’ Critical thinking is a cognitive skill that permits a person to logically investigate a situation, problem, question, or phenomenon in order to make a judgment or a decision. Bardi argues that the collapse of critical thinking skills in this country may be ‘systemic and historical, even inevitable,’ although he allows that many of his colleagues have a simpler explanation—that the problem is not history or culture, but today’s students, who, for whatever reason, ‘lack the critical thinking skills necessary for higher learning’” (pp. 5-6).

“Predictably, as if filling a growing market niche, a new-age, feel-good pop psychology/philosophy has sprung up to bolster the view that understanding gleaned from logic and critical analysis is not all that it’s cracked up to be. This outlook, which sounds especially
appealing after a couple of beers in a loud bar, suggests that the rational model is often unnecessary, and may even be obsolete. Malcolm Gladwell has recently set the high-water mark for this philosophy with his book *Blink—The Power of Thinking without Thinking*. In *Blink*, Mr. Gladwell argues that our minds possess a subconscious power to take in large amounts of information and sensory data and correctly size up a situation, solve a problem, and so on, without the heavy, imposing hand of formal thought” (p. 8). “In other words, lying behind these ‘snap judgments’ are educated impressions formed by years of study, thought, and analysis. And these educated hunches were confirmed by further analysis, which established, for instance, that the Greek statue was ‘a puzzling pastiche of several different styles from several different places and time periods.’ One of the appeals of *Blink* is that we all have intuition and rely on it to help us make decisions and get through the day” (p. 10).

“He [Gladwell] allows that our biases can lead automatic judgments astray, but provides no definitive insight on how to improve our snap-judgment ability other than ‘practice.’ In fact, critical scientific reasoning almost always involves a component of intuition, and intuition is almost always informed by experience and hard knowledge won by reasoning things out…. The technique by which we make good decisions and produce good work is a nuanced and interwoven mental process involving bits of emotion, observation, intuition, and critical reasoning. The emotion and intuition are the easy, ‘automatic’ parts, the observation and critical reasoning skills the more difficult, acquired parts. The essential background to all this is a solid base of knowledge. The broader the base, the more likely one is to have thought through and mastered different concepts, models, and ways of interpreting the world. The broader the base, the more likely all the parts will fit together. Yet, just as intuition is possessed by each of us, so is the ability to think and reason critically” (p. 12, emphasis added). “This is the point where
Think! and Blink diverge: the assumption that in contemporary life the public is somehow wary of making snap judgments; that our tendency by nature or cultural custom is to methodically research and analyze data before reaching any conclusion…. In wider society, however, a society bombarded by a glut of information, spin, marketing messages, and demands on one’s time, snap judgments have become the norm. We are living and, in some cases, dying by snap judgments. May people resort to paying someone else to think for them” (p. 13).

LeGault (2006) may find some support of damage to critical thinking skills, with new research on alterations to the brain’s thinking processes due to changing technology: “We shouldn’t allow the glories of technology to blind our inner watchdog to the possibility that we’ve numbed an essential part of our self” (Carr, 2010, p. 212). Recent research also raises questions about the critical thinking abilities and thinking processes, specifically relating to the impact of technological tools and the Internet (Carr, 2010). “Our willingness, even eagerness, to enter into what Doidge calls ‘a single, larger system’ with our data-processing devices is an out-growth not only of the characteristics of the digital computer as an informational medium but of the characteristics of our socially adapted brains. While this cybernetic blurring of mind and machine may allow us to carry out certain cognitive tasks far more efficiently, it poses a threat to our integrity as human beings. Even as the larger system into which our minds so readily meld is lending us its powers, it is also imposing on us its limitations. To put a new spin on Culkin’s phrase, we program our computers and thereafter they program us” (2010, p. 214). “As the many studies of hypertext and multimedia show, our ability to learn can be severely compromised when our brains become overloaded with diverse stimuli online. More information can mean less knowledge” (p. 214, emphasis added).
Some now argue that the Internet “continues to stomp [gravitas] down” (Walker, 2014, March 19). Other tests reflect the impact of cell phone usage as well. “Martin Lindstrom, an author and speaker, thinks that cellphones have become akin to a best friend for many owners. Lindstrom’s experiment using an MRI helped him discover why. When the subjects saw or heard their phone ringing, their brains fired off neurons in the area associated with feelings of love and compassion. Lindstrom said, ‘It was as if they were in the presence of a girlfriend, boyfriend, or family member’” (Williams, 2014, March 20).

A Dutch psychologist van Nimwegen conducted a study on computer-aided learning, in which two groups used either helpful software or an unhelpful program, finding that “those using the unhelpful software were better able to plan ahead and plot strategy, while those using the helpful software tended to rely on simply trial and error [and] ‘to aimlessly click around’” (Carr, 2010, p. 215). After conducting further tests, van Nimwegen found that it “was the differences in the design of the software that explained the differences in performance and learning” (p. 215). “The subjects using the bare-bones software consistently demonstrated ‘more focus, more direct and economical solutions, better strategies, and better imprinting of knowledge’” (pp. 215-216). “The more that people depended on explicit guidance from software programs, the less engaged they were in the task and the less they ended up learning. The findings indicate, van Nimwegen concluded, that as we ‘externalize’ problem solving and other cognitive chores to our computers, we reduce our brain’s ability ‘to build stable knowledge structures’—schemas, in other words—that can later ‘be applied in new situations.’ A polemicist might put it more pointedly: The brighter the software, the dimmer the user” (p. 216). “Yet as we cede to software more of the toil of thinking, we are likely diminishing our own brain power in subtle but meaningful ways” (p. 217). “The easy way may not always be the best way, but the easy way is
the way our computers and search engines encourage us to take” (p. 218). “What was lost along with the messiness [thanks to Frederick Taylor’s industrial scientific management] was personal initiative, creativity, and whim. Conscious craft turned into unconscious routine,” just like going online as we similarly follow scripts written by others (p. 218). “Rather than acting according to our own knowledge and intuition, we go through the motions” (p. 219).

Corroborating Plotkin’s (2008) linkage of nature and spiritual maturity, Carr (2010) cites, “A series of psychological studies over the past twenty years has revealed that after spending time in a quiet rural setting, close to nature, people exhibit greater attentiveness, stronger memory, and generally improved cognition. Their brains become both calmer and sharper. The reason…is that when people aren’t being bombarded by external stimuli, their brains can, in effect, relax. They no longer have to tax their working memories by processing a stream of bottom-up distractions. The resulting state of contemplativeness strengthens their ability to control their mind” (p. 219, emphasis added). “Spending time in the natural world seems to be of ‘vital importance’ to ‘effective cognitive functioning’…. One of the greatest dangers we face as we automate the work of our minds…is…a slow erosion of our humanness and our humanity” (p. 220). And as Damasio’s research shows, “the more sophisticated mental process of empathizing with psychological suffering unfolds much more slowly,” than to demonstrations of physical pain, such as seeing someone injured (pp. 220-221, emphasis added). “It takes time, the researchers discovered, for the brain ‘to transcend immediate involvement of the body’ and begin to understand and to feel ‘the psychological and moral dimensions of a situation’. The experiment, say the scholars, indicates that the more distracted we become, the less able we are to experience the subtlest, most distinctively human forms of empathy, compassion, and other emotions” (p. 221, emphasis added). “It would be rash to jump to the conclusion that the Internet
is undermining our moral sense. It would not be rash to suggest that as the Net reroutes our vital paths and diminishes our capacity for contemplation, it is altering the depth of our emotions as well as our thoughts” (p. 221, emphasis added). “Our ability to engage in ‘meditative thinking,’ which [Martin Heidegger] saw as the very essence of our humanity, might become a victim of headlong progress…. We are welcoming the frenziedness into our souls” (p. 222, emphasis added).

4. Patrick Wilson on Discerning and Deciphering Meaning

In addition to providing a methodological template, as noted in chapter two, Wilson’s (1960) dissertation also contributes substantively to our neuroscientific discussion as well as the epistemology of how and whether humans “know” things, particularly in discerning the possible meaning in language and in life.

“There are so many things to understand, and so many kinds of meaning and of interpretation: combinations of words, either sounds or inscriptions; … events and processes in the world; …whole lives, or life itself; whole societies, or all of history—all have at one time or another been held to be meaningful and a subject for interpretation” (p. 2). “We all speak of understanding men, as well as of understanding the utterances of men; and it is not unnatural that many philosophers have considered linguistic behavior as a mere subclass of the perceptible signs through which, by a process of interpretation, we come to know the inner reality of other men’s lives, the ‘meaning’ of their lives. The most prominent students of understanding and interpretation…wrote of a special science…a special way of knowing…a kind of sympathetic insight by which one re-creates in oneself the experiences of another, lives them over again, while perceiving these re-created experiences as belonging to another. The stimuli to such re-creation are the outward ‘expressions’ of others’ inner lives; and the connections between
expression and the inner events expressed are known immediately and non-inferentially…. For ultimately our concern is to attain an intuitive grasp of the whole ‘meaning’ of a person’s life” (p. 3, emphasis added).

Wilson (1960) states, “The primary concern will be to try to answer the questions: Under what conditions can one be said to have understood an utterance? and, Under what conditions can an interpretation be said to be correct?” (p. 7). Wilson analyses literary works in order to address interpretation or hermeneutics (p. 9), and studies “speech” which is not “a grotesque over-intellectualization of ordinary discourse” (p. 18), as well as “thoughts or judgments which do or do not allow ‘adequate expression’ in words” (p. 20, emphasis added). “Yet we must at least try to see the relation between what people say and what they mean, if we are to make sense of the notion of ‘a correct interpretation.’ It used to be common, among psychologists and philosophers, to think of overt speech as preceded by ideas, of which speech was merely the external manifestation or revelation…. But the problem of the ‘antecedents of speech’ remains with the more general problems of the psychology of thought and what now is called ‘psycholinguistics.’ In the writings of men concerned with or influenced by ‘information theory’ one finds constant references to ‘messages’ which are encoded’ in speech…” (pp. 33-34). “‘To these intended messages, being in his mind, you can have no direct access, no ‘true knowledge.’ He asks in another place ‘How do our ideas, our desired messages, set up utterances in such an effective goal-seeking way, as they do in real life?’ To this question [Colin Cherry] gives no answer; indeed, no one has a satisfactory answer” (p. 34, emphasis added). “We seem forced to admit that speech is in some sense the ‘expression’ of prior mental states, but to be unable to say more; so naturally we try to avoid having to talk about them at all, to find ways of talking about meaning, understanding, interpretation without reference to unknown
brain states. The problem is to see how this can be done” (pp. 34-35, emphasis added).

“Anything one says, it seems, could be misunderstood” (p. 35). “If what-I-meant is something, different from the words I spoke, and then it must be something in my head; and the process of understanding is one of getting to know, somehow, what is in my mind: a process of inference, or intuition…” (p. 36). “To mean so and so is not, or not necessarily, to think of so and so,” that is, not having “any conscious ‘content’ at all” (p. 37, emphasis added). Wilson also identifies “hard cases” as being “the unexpressible and the merely so-far-unexpressed” (p. 58, emphasis added), and recognizes “that we almost if not always do mean more than we say” (p. 60, emphasis added).

Quoting William James, Wilson addresses those gaps in our “stream of thought,” in which we find “only a ‘feeling of emptiness’ is there,” such as when forgetting a person’s name (p. 61). “The ordinary way is to assume that they are all emptinesses of consciousness, and so the same state. But the feeling of absence is toto coelo other than the absence of a feeling.” Likewise with thought in general: ‘In all our voluntary thinking there is some topic or subject about which all the members of the thought revolve.’ This may be a problem, a gap which like the gap caused by forgetting, ‘influences us in an intensely active and determinate way.’ Images, concepts, words which come to mind are accepted or rejected as they fit or fail to fit, are related or unrelated to, the gap. Or perhaps we will have, instead of such a felt gap, a mere ‘mood of interest,’ which acts in the same way, selecting and rejecting” (pp. 61-62). “We cannot and do not limit ‘what a person meant’ to what he was consciously thinking at the time of utterance; meaning, as Wittgenstein says, is not an experience” (p. 65). Notably, Wilson here (1960) confesses, “It may still be possible to restore the clean distinction between ‘correct’ and ‘over-’ interpretations; but I do not know how to do so” (pp. 69, 184, 186, 187). “Wherever choices are
involved, there will be reasons for and against any decision” (p. 169, emphasis added). “Good analyses of poems are always nice to have around, even if we’re not sure what immediate use they are” (p. 169).

As to relevance, Wilson (1960) opines, “I do not mean merely that, given a notion of relevance which clearly excludes and clearly includes some types of information, new matter is found which falls in the latter category; I mean rather that our notion of relevance changes. Likewise with the description and justification of elements of poems: not only the number of facts, of sorts antecedently admitted to be relevant, but the very catalogue of ‘relevant sort’ changes from time to time, following the changes of taste and the accumulation of knowledge. What the taste of one generation would find trivial and finicking, the taste of another may praise as acutely relevant to ‘proper appreciation.’” (pp. 175-176). This view aligns with O’Connor, Kearns, and Anderson (2008, p. 41).

“Obviously, critical activity can degenerate into aimless compulsive chatter; but the way to avoid such degeneration is not, I think, to attempt to set limits to what will be considered relevant to the understanding of poems” (Wilson, 1960, pp. 175-176). “[A]ny precise lines between the relevant and the irrelevant will be drawn according to taste. However, we must not think we have so easily escaped questions of ‘intention’” (p. 178). Wilson chases what a speaker or author meant, or as he repeatedly phrased it, “had in mind” (pp. 178, 179, 180, 181, 182), if anything, and for which we may be “wrong in attributing to him the reasons” (p. 180). “Notions may seem perfectly satisfactory and clear as air until some particular questions occur to one, when immediately all becomes confused. From the attempt to regain clarity comes, in the present case at least, a mixture of definitions…, proposals…, criticisms of old notions…, and readjustments of old notions…” (pp. 185-186, emphasis added). “In addition to being ‘clear,’
the new notions must be useful in solving old problems; they ought to help solve more than just the problems there were designed to solve; they must satisfy obscure feelings of what is intuitively acceptable…. This is all extremely vague; but is that not because no one does know quite why particular revisions of old notions become accepted while other revisions are ignored? Clarification may be one of the ostensible aims of philosophy; but to talk of clarification is not to tell the whole story. However, I do not claim to know the details of the rest of the story” (pp. 186-187, emphasis added).

In terms suggestive of the MLO question matrix (Appendix C), Wilson (1960) argues, “And the further one goes from simple sentences describing or referring to immediately presented features of the external world, the harder it becomes to understand the notion of ‘likeness of situation’ or ‘likeness in the effects of two forms on two persons’” (p. 189). “This ‘psycholinguistic hypothesis’ may well be false or unilluminating; but it fits in well with one of the recurrent themes of this work, that to discuss interpretation and meaning it is not enough to talk merely of a generalized ‘knowledge of a language,’ but that at every point we must consider the particular verbal stimuli, the particular questions, problems, instructions, that prompt particular responses. It may be objected that I have stressed too much the likelihood of dependence of linguistic behavior on slight differences of stimulus, for instance, the difference between questions of a meta-linguistic sort and others” (p. 195, emphasis added). Wilson feels “justified in suspecting, for instance, that the range of reformulations actually offered by or acceptable to a speaker is greater by far than one would expect on the basis of information elicited by meta-linguistic questions like ‘Are a and b synonymous?’ or ‘Does the word x apply to objects like this?’ But dogmatism would be particularly foolish on such a subject…. [P]hilosophers will always revert to the general view and the abstract statement; no harm need be
done by such a return unless one forgets one is being abstract. Conflict among proponents of rival abstractions is often carried on as though exclusive alternatives were being presented” (p. 196, emphasis added). Broaching the concept of denial, Wilson (1960) concludes: “But one is likely to fail to recognize the degree of abstraction involved in one’s general view unless one has immersed oneself in fairly fine detail for some time; the subjects of the preceding chapters have, besides some intrinsic interest, at least this heuristic value: to make us acquainted with the trees so we can speak better of the forest” (p. 197).

Wilson’s (1960) thesis has been captured in part by the movie The Matrix (1999):

“You're here because you know something. What you know you can't explain. But you feel it. You've felt it your entire life. That there's something wrong with the world. You don't know what it is but it's there, like a splinter in your mind driving you mad.” Hence, Patrick Wilson’s (1960) linguistic, epistemological analysis ties together the concepts of information science, neuroscience, language, and meaning. This analysis opens upon notions of potential meaning and understanding of a particular category of abstraction. The common theme among the many scholars cited here sounds in the ongoing struggle to obtain knowledge, grasp information, and understand the plausible meaning(s). An appropriate mantra may be found in The Swahili Warrior Song, from the film Lorenzo’s Oil (1992):

Life has meaning only in the struggle.
Triumph or defeat is in the hands of the gods.
So let us celebrate the struggle.

“Doubtless there were pangs in that incalculable life; but they were soon over; and how splendid meantime was the pageant, how infinitely interesting the universal interplay, and how foolish and inevitable those absolute little passions” (Durant, 1926/1962, p. 507, quoting Santayana).

D. Information Science and Religion
1. Intersection and Collaboration
   
a. Connecting and Searching

In addition to neuroscience, other disciplines are separately converging with information science, including religion and theology. Indeed, the Center for the Study of Information and Religion (CSIR) of the Information Science School at Kent State University hosted its annual academic conference on Information and Religion in May 2011. One of its enumerated topics for that first conference included, “Intersections of interests in the study of information and religion, where different disciplines might find it worthwhile to collaborate in research.”

This proposed interdisciplinary analysis embraces the arts, literature, economics, neuroscience, philosophy, theology, and interdisciplinary information science, and employs a “holistic” and "heuristic" (O’Connor, Copeland, & Kearns, 2003, pp. 95, 102, 113) framework among “epistemological priorities" (pp. 97, 140). These disciplines, though seemingly dissimilar in concern, fill information gaps in the human mind. Religious issues are conducive to information-science analysis, particularly due to their metaphysical nature and potential use in addressing information-avoidance behaviors. That pairing of ideas—encompassing this variety of informational sources—may better equip humanity to overcome the “quiet desperation” evoked by Thoreau and to respond to Eliot’s perennial questions we find persistent today: “Where is the Life we have lost in living? Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?” (Eliot, 1934, p. 5, Boyd, 1985, pp. 95, 1991, p. 38).

As noted above, the Nineteenth Century produced transcendental and religious thinkers who may cast light upon the Twenty-first Century’s need for research of information and religion to address contemporary questions. By exposing the “quiet desperation,” Thoreau (1854/1992)
sought to “awaken” his neighbors. Across the Atlantic, English Cardinal John Henry Newman (1868) asserted, “Many… refuse to be awakened, and think their happiness consists in continuing as they are” (p. 58). It therefore makes sense for Eliot to query the “Life lost.” Their observations reveal a general model of modern humanity: we face an information need for solution or awakening to fulfill potential, to encounter information essential to well-being, and to identify and achieve our dreams. As such, information users today may benefit from an integrated outlook on theology and information to overcome concerns relating to denial, cognitive dissonance, and avoidance behaviors. To that end, “information doctors” may stand better to navigate a broad expanse of socioeconomic issues. Navigation on such a voyage will likely require weaving together pragmatic and spiritual tools and concepts of wrestling with information denial and charting the currents of perplexing choice and decision.

Presenting to us the condition of “quiet desperation” faced by decision makers today, Thoreau himself serves as an “information doctor,” addressing a characteristic in human nature that contributes to how and whether information users satisfy, what Thoreau viewed as, essential information needs. What causes “quiet desperation” and what information may clarify, resolve, or help us understand its relation to individual lives? Thoreau then implicitly poses an informational model (simplify, reduce encumbrances, attend to meaning and purpose [e.g., spirituality]), consistent with what contemporary scholars in Information Science propose as a workable solution to resolving informational behavior problems in satisfying informational needs. Merely encountering Thoreau and Eliot may awaken an anomalous state of knowledge (Belkin, 1980, pp. 133-143), possibly latent but existent in the interstices of consciousness and the subconscious.
The notion of “relevance” from an Information Science perspective conjures ideas directly pertinent to the topics of avoidance and awakening. There is “a notion in the hunter [with a ‘hunter-gatherer brain’] that something is lacking. In a very real sense we hunt and we forage for relevance” (O’Connor, Copeland, & Kearns, p. 117, emphasis added). The hunt is the “search and gathering as the accumulation of information that, when applied, will bring one to some understanding or fulfillment” (Id.). Absent clarity or fulfillment in some area of life, “anomalous states can be anything that we feel is missing from our knowledge stores” (p. 122, emphasis added). “The anomaly indicates that one has at least a very slight notion that something is lacking. One seeks to fill, or give meaning to, whatever this anomaly represents” (p. 119, emphasis added). Therefore, “the need for relevance leads hunter-gatherers searching for whatever could solve the problem” (p. 118, emphasis added). “Relevance is ‘what will answer the question…what may suggest a way of answering the question . . . [or] what will help one formulate what may turn out to be the answer one seeks’” (p. 118). Hence, “Carl Sagan notes that ancient Egyptians called the library ‘nourishment for the soul’; others talk about the ‘flavors of relevance’; and still others pilgrimage toward feeding a spiritual hunger . . . [that] provides sustenance for body, mind, and soul” (pp. 122-123, emphasis added, citations omitted).

Notwithstanding these aforementioned issues are derived from an Information Science perspective, Information Science nevertheless eschews being “pigeon-holed as soulless dullards” or ignoring the “design process through the image of a human heart” (p. 105, emphasis added).

b. Spiritual, Literary, and Economic Information: The Walden Model

A synthesis of information from various sources may yield identification, clarification, and better understanding of the penultimate human questions, as well as assisting information users across or through the information gap. In this instance, the question state or information...
gap is more richly and deeply understood by use of Thoreau’s “quiet desperation” and Eliot’s “life lost” and “footfalls echo [past the misspent] rose garden.”

Our understanding of what these are and how they occurred is both benefited from notions about information-related behaviors of seeking, avoiding or denying, and the messy “fumbling” (O’Connor, Copeland, & Kearns, 2003, p. 102), “grappling” (p. 100), “juggling” (p. 147), and “stumbling” (p. 1) in our unawareness, and expanded by increasing contributions from neuroscience. From this behavioral context, an interactive guidance or tutoring through information sources and questions assists in determining relevance to a user’s specific question with specific priority for timely execution, moving from question to awareness or awakening (Boyd, 1999, p. 142). Cardinal John Henry Newman observed: “And the disclosure of [Spirituality] is made [by] means of information…to individual minds…so that the truths of religion circulate through the world ….” Put simply, spirituality is disclosed by information to minds of truths.

Awakening must per force occur amidst the anomalous state of pervasive ennui and prevalent malaise. Cass (2011, April 20) reports a recent survey, “Young adults. . . fear graduation means tumbling into an economic black hole" (p. 8A). Another study found that the “American dream of life getting better for each new generation feels like a myth to many of today’s young adults” (Cass, 2011, April 19, p. 1A). One 23-year-old stated, “I’m literally stuck, and there’s nothing I can do about it…. Money troubles are steering the course of young lives" (Cass, 2011, April 19, p. 7A). At the other end of the age continuum, a recent report finds, “In a bad economy where jobs are hard to come by for young, qualified workers, seniors face serious problems finding gainful employment [and] are more likely than any other age group to face very long-term unemployment" (Mohajer, S.T., 2011, April 17).
As noted previously, Sanneh (2009, June 22) similarly notes that “a vague sense of dissatisfaction with the demands and rewards of the modern economy,” away from “soul-destroying consequences in our new work habits—endless hours spent at flexible jobs, performing abstract tasks on computer screens.” Yoshino (2009, June 2) describes a backlash against corporate America, “The rat race puts blinders on you and makes time fly.” Dreher (2009, May 31) writes, “Many a white-collar man [and woman] works hard but lives in a world of soul-killing abstraction…. The work cannot sustain [them] as a human being. Rather, it damages the best part of him, and it becomes imperative to partition work off from the rest of life.”

Thus, the quest for “an answer” persists as famously if not sardonically put forth two millennia ago by the Roman governor Pontius Pilate: “What is truth?” (John 18:38). “Within time, truth is forever underway, always in motion and not final even in its most marvelous crystallizations” (Jaspers, K., 1952/1953, p. 104). Hence, humanity grapples, gropes, wrestles, and stumbles through time over the ultimate questions of life, death, meaning of existence, suffering, disasters, evil, unfairness, truth, justice, randomness, determinism, and purpose. This dialectic developed at least five major philosophical worldviews (with certain founders noted), and at least two significant evidentiary worldviews: existentialist (Kierkegaard, Nietzsche, Sartre), nihilist (Nietzsche), pragmatist (W. James), absurdist or paradoxical (Camus), and religious (Moses, Buddha, Confucius, Jesus, Muhammad), coupled with “modern and postmodern modes of thought” (O’Connor, Copeland, & Kearns, p. 97), respectively. These worldviews may overlap and merely constitute symbols or messages within which meaning may be captured.
The struggles underlying these worldviews strive to attain an awakening. As Orwell (1949) described it in *1984*, “Until they become conscious they will never rebel, and until after they have rebelled they cannot become conscious" (Part 1, chapter 7, p. 74). He continued, “And the people under the sky were also very much the same . . . people ignorant of one another’s existence, held apart by walls of hatred and lies, and yet almost exactly the same—people who had never learned to think but … would one day overturn the world” (Book 1, chapter 10). Thomas Jefferson (1816) similarly described this need for awakening: "If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be.” Others attribute further cautionary statements to Jefferson: “If we are to guard against ignorance and remain free, it is the responsibility of every American to be informed," and “If ignorance is bliss, why aren’t more people happy?” Or as G.K. Chesterton noted, “A dead thing can go with the stream, but only a living thing can go against it." These sources demonstrate that a contemporary information need exists, also reflecting a common and ancient aspect of human nature, in search of a solution or awakening.

The religious (or spiritual) worldview may contribute to this search from ennui to awakening. Extending Darwin’s thinking to contemporary views, our reptilian brains mapped to a mammalian metamorphosis and then into primates and resulting in “hominids” (O’Connor, Copeland, & Kearns, 2003, pp. 2, 10, 149). Whether through physical evolution or cultural (Watts, 2002, pp. 22, 86-88), humans’ evolved instincts seemingly thrived on fear and greed motives, contributing to the information gap of ennui or desperation. Religious texts recognized that the people are “weary, scattered, and confused" (Matthew 9:37), “stumbling” over laws and truths (Romans 9:32), and that “now it is high time to awake out of sleep” (Romans 13:11, Isaiah 52:1). The religious worldview generally holds, though not exclusively from the others, three
precepts common among the major world religions: transcendence (including religions focused on immanence over transcendence, yet transcendent as opposed to strict materialists), frugality or the de-emphasis of consumption and material accumulation, and serving others.

First, contrary to some nihilist, absurdist, or scientific materialist viewpoints, the religious worldview contends for the existence of something transcendent or a “something more.” “[T]here must be something in reality that transcends physical determinism; otherwise thinking and choosing make no sense at all” (Daly & Cobb, 1989/1994, p. 399). Tolstoy confronted his questions about life and any meaning by viewing “all human knowledge” divided into “two opposite hemispheres at the ends of which are two poles” of experimental science and of abstract science “at the extreme end of it stands metaphysics” (Tolstoy, 1882/1884, p. 16). H.G. Wells stated a different dichotomy: “If God does not exist, nothing matters. If he does, nothing matters more.” G.K. Chesterton (1908) struck a familiar chord: “Pragmatism is a matter of human needs; and one of the first human needs is to be something more than a pragmatist” (emphasis added). And an atheist worldview recognizes this need, as A.C. Grayling asserted for his book, “The Good Book—A Humanist Bible” (Ravitz, 2011): “the hunger for a spiritual connection continues." This coincides with the information professional’s notion of relevance in terms of that sense of lacking or for something more.

Second, the major religions urge appropriately dealing with money by proper stewardship of material needs and expenditures: “No one can serve two masters…both God and Money” (Matthew 6:24). Thoreau (1854/1992) questioned why people “everywhere” (p. 4) were “serfs” who appeared “crushed and … creeping down the road of life” (p. 5) as a “slave and prisoner” in need of “self-emancipation” (p. 7, emphasis added). He posited a formula: “the cost of the thing is the amount of what I will call life which is to be exchanged for it" (p. 25). Adam Smith
agreed, “What everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it” (Dupre & Gagnier, 1996, p. 553). Or as one theologian puts it, “The truth is that all dreams cost the same, for they cost us our life. Every day we spend our hours to buy them, and at the end we shall have spent all the time we had. ‘Take what you want, and pay for it,’ says the Spanish proverb; and we all do, and what we take we pay for with our life. Is your dream worth what it’s costing you?” (Boyd, 1998, p. 95, emphasis added; Shulte, 2014, April 6, p. 1P; Blow, 2014, May 11, p. 1B).

As a result, Thoreau found that by our pursuit of accumulation, comforts, and conveniences, humans render themselves “trapped,” which is “the reason he is poor” (p. 27, emphasis added). As G.K. Chesterton (1908) put it, “When materialism leads men to complete fatalism (as it generally does), it is quite idle to pretend that it is in any sense a liberating force" (p. 22). Chesterton further surmised, "There are two ways to get enough. One is to continue to accumulate more and more. The other is to desire less.” Cardinal Newman found that humans “seem hardly to go by principle, but by what is merely expedient and convenient [rather than Jesus’ description of the choice of two roads where] ‘Narrow is the way’ [which] is against the current of human feeling and opinion, and the course of the world" (Newman, 1868, p. 61; Daly & Cobb, p. 380).

More recently, professors Daly and Cobb (1989/1994) stated, “Shopping has become the great national pastime. . . . Status attaches to finding unusual goods and unusual prices. Hence any move that threatens people in their role as consumers, even if it does not deny them what they need in terms of goods, arouses considerable emotional hostility. It may make very difficult any discussion of how to deal with the national problem" of debt or squandered resources (p. 373; Schor, 1998, 2000; Elgin, 1981/1993; Postman, 1985; Etzioni, 1998). That is, consumption
arouses denial. Archbishop Alfeyev (2011, February 13) of Moscow, lecturing in Dallas, remarks that “inhumanity” and “egocentrism have today reached truly universal dimension.” People encounter “the propaganda of consumerist’s attitude to life . . . on a daily basis . . . [and] are taught that the only value in this life is material well-being and professional success.” Wallis recently describes Pope Francis: “Francis is now challenging the most powerful people and places in the world, as well as a popular culture that mostly asks how we can serve ourselves” (Wallis, J., 2014, March 13). Akst (2011, May 8), a self-described “devout atheist” states, “[Religion’s ‘rituals and traditions’] can be useful in helping believer and infidel alike deal with grief, connect with one another and remember that the purpose of life isn’t getting and spending” (p. 4P, emphasis added). Instead, Thoreau in Walden proposed “to be content with less” (p. 29). “It is the luxurious and dissipated who set the fashions which the herd so diligently follow . . . But lo! Men have become the tools of their tools” (p. 30). Some Millennials are also adopting a Minimalist posture, quoting William Wordsworth’s line, “Getting and spending, we lay waste our powers” (Dufner, 2014, March 8, p. 4E). As Thoreau resisted bowing to the pressures by which humans become the controlled tool, Flannery O’Connor charged readers to “push back against the age as hard as it pushes against you” (Dreher, 2008, October 26, p. 1P; Culp, 2010).

Third, religious worldviews advocate serving others. An important result of Thoreau’s frugal and conservationist perspective of Walden is that time, money, and other resources are freed up to solve problems and assist others. Daly and Cobb (1994) adopted this Thoreauvian principle:

On the basis of massive borrowing and massive sales of national assets, Americans have been squandering their heritage and impoverishing their children. They have done so for the sake of present consumption, the enjoyment of the shopping that accompanies it. . . . (p. 373).
Change “will depend on finding images with mass appeal that show why the current affluence is an illusion” (p. 373), which I propose will occur due to the “stories” (Dreher, 2011, April 24, p. 6P; Coles, 1989) by mentors and tutors (Wilson, 1973, 1977). “[T]he real possibility for change depends on an awakening of the religious depths in a world whose secularity has gone quite stale . . . . Overcoming ['misplaced concreteness [which] brought us to the present crisis'] is a religious task” (Daly & Cobb, pp. 380-381). But if service to others is ignored through current consumption, “Perhaps ['our children’s children'] will learn also to forgive this generation its blind commitment to ever greater consumption" (Daly & Cobb, p. 406). Cardinal Newman (1868) also described his generation “under a considerable danger at this day . . . of self-deception, of being asleep while they think themselves awake,” and thereby “cheated of the Truth” (p. 63). He too adopted the prescriptions of Thoreau, Daly, and Cobb, to do with less and reduce consumption as a form of self-denial supported by the religious texts of Mark 8:34 and Luke 9:23, admonishing to “deny himself, and take up his cross” (pp. 65, 67). Thus, the religious worldview proffers an informational model from “quiet desperation” into the awareness of our “rose garden” and “castles in the air.” This model consists of these aforementioned three precepts, with an economic framework for valuing life in terms of spending, consumption, and labor.

In conclusion, in the face of saturnine prospects, gaining “spiritual knowledge” parallels, encapsulates, and overlays the weaving of threads from seemingly unrelated disciplines into a tapestry to bridge information gaps. Religion and information science share a natural, almost symbiotic, fit to aid humanity on questions of greatest magnitude, depth, and complexity. They can be mutually and reciprocally beneficial, borrowing from disparate disciplines to evoke an awakening event, because we “cannot anticipate” (O’Connor, Copeland, & Kearns, p. 11) the
catalyst for awareness. Indeed, the interdisciplinary nature of Information Science itself contributes to the core ambition of religion to awaken an individual or a community, essential in resolving information needs as a “Buddha” (which means “awaken” or “enlighten”). Alice Walker’s Pulitzer Prize-winning novel, *The Color Purple* (1982/1992), conjures religion and information science concepts as a solution: “But only them that search for it inside find it. And sometimes it just manifest itself even if you not looking, or don’t know what you looking for . . . . Now that my eyes opening, I feels like a fool . . . . You have to git man off your eyeball, before you can see anything a’ tall” (pp. 195, 197; Colossians 3:1-2, Philippians 4:8). “Information Doctors” may assist users in moving from avoidance to “eye-opening” awakening, thereby joining Robert Frost (1916) on the divergences encountered in life choices when he “took the one less traveled by, And that has made all the difference.” And then to crow with Thoreau (1854/1992), “To be awake is to be alive” (p. 74), to build “castles in the air,” and to put “foundations under them” so “that if one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet with a success unexpected in common hours” (p. 267).

2 Neuroscience and Religion

a. Happiness and Morality

Haidt (2006) delves into the question of happiness. “Our life is the creation of our minds, and we do much of that creating with metaphor… With the wrong metaphor we are deluded; with no metaphor we are blind” (p. 181).

Haidt (2006) addresses “psychology’s answer to the ultimate question” of “What is the meaning of life” (p. 214).

I believe the answer can be found only by understanding the kind of creature that we are, divided in the many ways we are divided. We were shaped by individual selection to be
selfish creatures who struggle for resources, pleasure, and prestige, and we were shaped by

group selection to be hive creatures who long to lose ourselves in something larger. We are

social creatures who need love and attachments, and we are industrious creatures with needs

for effectance, able to enter a state of vital engagement with our work. We are the rider and

we are the elephant, and our mental health depends on the two working together, each
drawing on the others’ strengths. I don’t believe there is an inspiring answer to the question,
‘What is the purpose of life?’ Yet by drawing on ancient wisdom and modern science, we

can find compelling answers to the question of purpose within life. (pp. 238-239, emphasis

added).

Haidt concludes,

The final version of the happiness hypothesis is that happiness comes from between. Happiness is not something that you can find, acquire, or achieve directly. You have to get the conditions right and then wait. Some of those conditions are within you, such as coherence among the parts and levels of your personality. Other conditions require relationships to things beyond you: …people need love, work, and a connection to something larger. It is worth striving to get the right relationship between yourself and others, between yourself and your work, and between yourself and something larger than yourself. If you get these relationships right, a sense of purpose and meaning will emerge. (pp. 238-239; Murray, 2012, pp. 264-265).

Quoting Heraclitus, “All things come into being by conflict of opposites” (p. 241). And William Blake, “Without Contraries is no progression. Attraction and Repulsion, Reason and Energy, Love and Hate, are necessary to Human existence” (p. 241). “Happiness requires changing yourself and changing your world. It requires pursuing your own goals and fitting in with others. Different people at different times in their lives will benefit from drawing more heavily on one approach or the other” (p. 242).

Beyond happiness, Haidt (2012) also analyzes the psychology in connecting the
development of the brain with morality and viewpoints. Haidt (2012) argues that intuitions come

first, strategic reasoning second, using the central metaphor that “the mind is divided, like a rider

on an elephant, and the rider’s job is to serve the elephant. The rider is our conscious

reasoning…. The elephant is the other 99 percent of mental processes—the ones that occur

outside of awareness but that actually govern most of our behavior” (p. xiv). Second, he urges
that “there’s more to morality than harm and fairness,” with the metaphor that “the righteous mind is like a tongue with six taste receptors,” and that secular Western moralities “try to activate just one or two of these receptors” (pp. xiv-xv). Third, “Morality binds and blinds,” with the metaphor that “human beings are 90 percent chimp and 10 percent bee. Human nature was produced by natural selection working at two levels simultaneously. Individuals compete with individuals within every group, and we are the descendants of primates who excelled at that competition. This gives us the ugly side of our nature, the one that is usually featured in books about our evolutionary origins. We are indeed selfish hypocrites so skilled at putting on a show of virtue that we fool even ourselves” (p. xv, emphasis added). “But human nature was also shaped as groups competed with other groups. As Darwin said long ago, the most cohesive and cooperative groups generally beat the groups of selfish individualists…. We also have the ability, under special circumstances, to shut down our petty selves and become like cells in a larger body, or like bees in a hive, working for the good of the group [which] are often among the most cherished of our lives, although our hivishness can blind us to other moral concerns. Our bee-like nature facilitates altruism, heroism, war, and genocide” (p. xv). Haidt argues our “righteous minds” are “primate minds with a hivish overlay” (p. xv). “We’re born to be righteous, but we have to learn what, exactly, people like us should be righteous about” (p. 26). “One of the greatest truths in psychology is that the mind is divided into parts that sometimes conflict. To be human is to feel pulled in different directions, and to marvel—sometimes in horror—at your inability to control your own actions” (p. 27). Haidt posits three models of the mind: Plato’s that reason ought to be the master (along with Kant and Kohlberg, which Haidt calls “the rationalist delusion,” p. 28), Hume’s that reason is and ought to be the servant of the passions, and Jefferson’s that reason and sentiment are and ought to be independent co-rulers (p.
30), all of whom operated without the “most powerful tool ever devised for understanding the
design of living things: Darwin’s theory of evolution” (p. 30). “Darwin was a nativist about
morality: he thought that natural selection gave us minds that were pre-loaded with moral
emotions” (p. 31).

Haidt (2012) cites Pinker (2002), as well as Edward O. Wilson, for The Blank Slate, as an
example which challenged a wave of moralism through radical politics, whereby “moral
exhibitionists” ignored science’s search for truth if it was not viewed as consistent with their
agendas or ideals (p. 31). Through his study of “moral reasoning,” Haidt (2012) offers a new
angle in viewing the brain’s cognition, consistent in part with the positions of Lehrer (2009) and
others. “We do moral reasoning not to reconstruct the actual reasons why we ourselves came to
a judgment; we reason to find the best possible reasons why somebody else ought to join us in
our judgment [which are not “personal preferences” or “subjective statements”]. Part of the
problem was that my thinking was entrenched in a prevalent but useless dichotomy between
cognition and emotion. After failing repeatedly to get cognition to act independently of emotion,
I began to realize that the dichotomy made no sense. Cognition just refers to information
processing, which includes higher cognition (such as conscious reasoning) as well as lower
cognition (such as visual perception and memory retrieval). Emotion is a bit harder to define
[which only more recently was recognized as ‘filled with cognition’]” (p. 44, emphasis added).
“Emotions occur in steps,” first to appraise (p. 44). “When an appraisal program detects
particular input patterns, it launches a set of changes in your brain that prepare you to respond
appropriately…. Emotions are not dumb. Damasio’s patients made terrible decisions because
they were deprived of emotional input into their decision making. Emotions are a kind of
information processing. Contrasting emotion with cognition is therefore as pointless as
contrasting rain with weather, or cars with vehicles…. Moral judgment is a cognitive process…. The crucial distinction is really between two different kinds of cognition: intuition and reasoning” (pp. 44-45). “In The Happiness Hypothesis [2006], I called these two kinds of cognition the rider (controlled processes, including ‘reasoning-why’) and the elephant (automatic processes, including emotion, intuition, and all forms of ‘seeing-that’)” (p. 45). Haidt’s “social intuitionist model of moral judgment” explains “why moral and political arguments are so frustrating: because moral reasons are the tail wagged by the intuitive dog,” which wags to communicate, and because “you can’t change people’s minds by utterly refuting their arguments,” as Hume long ago diagnosed (p. 48). “Empathy is an antidote to righteousness, although it’s very difficult to empathize across a moral divide” (p. 49).

Haidt (2012) “painted a portrait of human nature that is somewhat cynical” (p. 190). “I’ve argued that Glaucon [Plato’s brother who challenged Socrates in The Republic] was right and that we care more about looking good than about truly being good. Intuitions come first, strategic reasoning second. We lie, cheat, and cut ethical corners quite often when we think we can get away with it, and then we use our moral thinking to manage our reputations and justify ourselves to others. We believe our own post hoc reasoning so thoroughly that we end up self-righteously convinced of our own virtue” (p. 190). “I do believe that you can understand most of moral psychology by viewing it as a form of enlightened self-interest, and if it’s self-interest, then it’s easily explained by Darwinian natural selection working at the level of the individual. Genes are selfish, selfish genes create people with various mental modules, and some of these mental modules make us strategically altruistic, not reliably or universally altruistic” (p. 190, emphasis added). “Our righteous minds were shaped by kin selection plus reciprocal altruism augmented by gossip and reputation management. That’s the message of nearly every book on
the evolutionary origins of morality, and nothing I’ve said so far contradicts that message. But…I’m going to show why that portrait is incomplete. Yes, people are often selfish, and [much] behavior can be understood as thinly veiled ways of pursuing self-interest…. But it’s also true that people are groupish” (p. 190). “When I say human nature is selfish, I mean that our minds contain a variety of mental mechanisms that make us adept at promoting our own interests, in competition with our peers. When I say that human nature is also groupish, I mean that our minds contain a variety of mental mechanisms that make us adept at promoting our group’s interests, in competition with other groups. We are not saints, but we are sometimes good team players” (p. 191). “I’m invoking a process known as ‘group selection’” (p. 191).

New evidence leads to the principle: “Morality binds and blinds. I will suggest that human nature is mostly selfish, but with a groupish overlay that resulted from the fact that natural selection works at multiple levels simultaneously” (pp. 191, 218). “These two processes pushed human nature in different directions and gave us the strange mix of selfishness and selflessness that we know today” (p. 192, emphasis added). Darwin suggested the “basic logic of what is now known as multi-level selection. Life is a hierarchy of nested levels [with] competition at any level of the hierarchy” (pp. 193, 218). Haidt further argues that “Genes and cultures coevolve,” and that it “sped up” (219), in alignment with Watts (2002). “We humans have a dual nature—we are selfish primates who long to be a part of something larger and nobler than ourselves. We are 90 percent chimp and 10 percent bee” (p. 220, emphasis added).

Haidt (2006) and (2012) argues that happiness comes from “between,” and not from “within,” which is confirmed in the light of his argument for our “dual nature” (p. 244, emphasis added). “We have the ability (under special circumstances) to transcend self-interest and lose ourselves (temporarily and ecstatically) in something larger than ourselves,” which he calls this
ability the “hive switch” (p. 244). “The hive switch is another way of stating Durkheim’s idea that we are Homo duplex; we live most of our lives in the ordinary (profane) world, but we achieve our greatest joys in those brief moments of transit to the sacred world, in which we become ‘simply a part of a whole’” (p. 244). “It would be nice to believe that we humans were designed to love everyone unconditionally…. Parochial love—love within groups—amplified by similarity, a sense of shared fate, and the suppression of free riders may be the most we can accomplish” (p. 245, emphasis added). “We humans have an extraordinary ability to care about things beyond ourselves, to circle around those things with other people and in the process to bind ourselves into teams that can pursue large projects” (p. 273). “Whether you end up on the right or the left [coined in 1789] of the political spectrum turns out to be just as heritable as most other traits: genetics explains between a third and a half of the variability among people on their political attitudes” (p. 278). Citing Christian Smith, who agrees with Durkheim “that every social order has at its core something sacred,” Haidt argues that “stories, particularly ‘grand narratives,’ identify and reinforce the sacred core of each matrix” (p. 283). Thus, “If you want to understand another group, follow the sacredness…” (p. 312). And if you really want to open your mind, open your heart first” (p. 312, emphasis added).

Contrary to Haidt’s, and other neuroscientists’, position toward little individual choice, due to deterministic factors, a Yale psychology professor begs to differ. “I do worry, though, that many of my colleagues have radically overstated the implications of their findings. The genetic you and the neural you aren’t alternatives to the conscious you. They are its foundations” (Bloom, 2014, March 30, p. 1P). “Reason underlies much of what matters in the world, including the uniquely human project of reshaping our environment to achieve higher goals…. We manage information and constrain options, allowing our better selves to overcome
those gut feelings and appetites that we believe we would be better off without. Yes, we are physical beings, and yes, we are continually swayed by factors beyond our control. But as Aristotle recognized long ago, what’s so interesting about us is our capacity for reason, which reigns over all. If you miss this, you miss almost everything that matters” (p. 5P).

In conclusion, the question of happiness, whether in its pursuit or its seemingly fleeting nature, is inextricably intertwined with the interdisciplinary issues invoked throughout this study. “Part of our problem today, one reason we so readily look for happiness through materialism, is that we confuse pleasure with happiness. The former is a sensual feeling, the latter is spiritual” (Pollan & Levine, 2005, p. 6, emphasis added). “The secrets to happiness are all in your head, not just because they’re attitudes, but because they’re truths we learned at some point in our lives but have either overlooked or forgotten” (p. 14). “We measure ourselves against others…. We compare ourselves to others in millions of different ways” (pp. 15-16, emphasis added). “We’re pessimistic about the future…” (p. 16). “We are our own worst enemies” (p. 16). “We think needing and asking for help is a sign of weakness” (p. 17). “We wait for the best time or the right time” (p. 17). “We think we can have everything” (p. 18). “We spend time reliving and regretting the past” (p. 18, emphasis added). “We spend too much time dreaming of the future” (p. 19, emphasis added). “Base decisions on your life, the life you want to lead, not someone else’s life or the life others think you should lead. There’s a wonderful story about the Greek philosopher Diogenes that makes a similar point: The abandonment of materialism offers freedom. Diogenes is sitting on the side of the road eating his simple meal of porridge. A court philosopher sees him and comes over to chat. ‘You know, Diogenes, if you learned to play up to the king like the rest of us, you wouldn’t have to live on porridge.’ Diogenes doesn’t even glance up from his bowl; he just says, ‘If you learned to live on porridge, you wouldn’t have to play up to the king.’
There’s something to be said for asceticism. Its simplicity and purity appeal to some people on a very fundamental level. In addition, making a shift from twenty-first-century American materialism to asceticism is dramatic…. I think that’s what accounts for the popularity of recent ascetic trends like extreme frugality and voluntary simplicity” (p. 37, emphasis added). “‘We spend our time envying people whom we wouldn’t wish to be.’ Everything of value has a cost. Career and business success don’t come without a price. Work successes are part of a balanced life equation; they come at the expense of something else” (p. 41, emphasis added). “‘There is a crack in everything God made, and not least of all, in each one of us.’ Ralph Waldo Emerson” (p. 44, emphasis added).

b. God and Belief

Newberg (2006) favors the views of Spinoza and Damasio, which emphasize intuitions, and support a “holistic worldview” (pp. 43, 42, 75, emphasis added). Neuroscientist Newberg notes that philosopher Dennett has suggested that “the notion of beliefs is not scientifically valid,” though he has also argued “that treating people as if they had beliefs is a useful strategy for understanding human behavior” (p. 17). “[B]eliefs are our most important human commodity. With them we can build civilizations, make revolutions, create music and art….. We all have beliefs, we all need them, and they will determine humanity’s fate…yet we barely grasp how they work at the biological, behavioral, or psychological level. As a neuroscientist, I have come to realize that the study of beliefs may be the single most important quest, both scientifically and spiritually [and that] we must begin this exploration by examining the very part of us that does the believing—the human brain” (p. 17, emphasis added).

In this inquiry, “Damasio is integrating intuition, feelings, and reason into a holistic worldview [and Damasio] believes that the neurobiology of religious experience…will
eventually be mapped out in the lab” (pp. 42-43, emphasis added). Newberg proposes “that beliefs are always in flux, and that the human brain is continually imagining and intuiting alternative perspectives on reality. This flexibility may have evolved to allow the brain to adapt its thinking to the new and unusual situations it encountered…. One person builds on the ideas of another…. Our beliefs, therefore, are an assemblage of perceptual experiences, emotional evaluations, and cognitive abstractions that are blended with fantasy, imagination, and intuitive speculation [as we] invent the world every day, searching for the ultimate reality we call truth…. No other organism seems to demonstrate this passion for truth” (pp. 43-44). Quoting Dennett, Newberg writes, “There is no limit, apparently, to what we can believe, and to what we can distinguish in belief” (p. 44). “But human beings seem to be in a perpetual state of alertness, always aware that things are not exactly as they seem…. [see, e.g., next section on Theological Constructions] We’re never certain if we have enough money, enough love, or enough security, and so we do not sleep as well as the lion… We think. We read and study and go to religious services, seeking answers to our questions, and seeking truth. If we find discrepancies, we may change our beliefs, but no matter how we revise the map, some new piece of information is bound to shake us up. You can call it human nature or fate, but in such a state of perpetual uncertainty, how do we find happiness and peace? The first step is to learn that we do not need to grasp the absolute truth in order to survive” (p. 44, emphasis added). Newberg quotes a character from a Sir Arthur Conan Doyle novel: “What can we know? What are we all? Poor silly half-brained things peering out at the infinite, with the aspirations of angels and the instincts of beasts” (p. 45, emphasis added). In his Pensees #72, Blaise Pascal acknowledged the nature of man and of things, “impregnably concealed from him in an impenetrable secret. He is equally
incapable of seeing the nothingness out of which he was drawn and the infinite in which he is engulfed.”

Noting the right and left sides of the brain, Newberg states, “That is why, when we are feeling calm and motivated, we might engage in an altruistic activity; but when we feel angry, we act selfishly, with little empathy or care. From a neurological perspective, each emotional state can elicit different, even opposing beliefs from one moment to the next. Even on a microscopic level, each neuron acts independently in deciding which information, and which parts of it, to pass on. In the process of synaptic communication, each neuron changes the message slightly excluding bits of information it considers irrelevant and adding on new bits of information. One might say that each neuron has a mind of its own, governed by its own beliefs and directives inferred by various genes” (p. 67, emphasis added).

“We tend to believe what we want to believe. Our expectations have a significant influence on what we eventually believe about the world…. It is also important that we have a good sense of what other people are thinking (this is often referred to as ‘theory of mind’) and how their beliefs relate to ours…. However, neither children nor adults have a well-developed capacity to distinguish the accuracy of their own beliefs. In fact, adults are particularly vulnerable with regard to maintaining self-deceptive beliefs…. Most people, in fact, over-estimate their personal abilities, and unfortunately their inflated beliefs cause them to suspend their ability to test reality” (p. 73, emphasis added). Newberg also addresses studies about the detrimental effects of pessimism and the beneficial effects of optimism (pp. 74-75, 130-31).

Newberg (2006) asserts that in neurological development, “it is easier for the brain to first quantify object into pairs, and then differentiate them into opposing groups: light or dark, happy or sad, fact or fiction, … [and] tends to reduce cause-and-effect cognition into dualistic if-then
scenarios because these are an easy, neurologically efficient way to make sense of the world” (also noting contrasts from the ancient writings in book of Genesis, the contrasts of heaven and earth, light and dark, land and water, man and woman, good and evil) (p. 88, emphasis added). Thus, Newberg echoes Churchland’s (1995) view of the brains recurring loop processes to analysis data from sensory inputs. “This neural process of simplification and generalization is, in effect, a form of biological stereotyping because it does not take into account individual differences and nuances [and] once an oppositional dyad is created, the brain will then impose an emotional bias on each pat of the dyad” (p. 88, emphasis added), also creating an “inborn ‘us-versus-them’ mentality” (p. 89).

In later stages, Newberg addresses intellectual maturity and religious decline, because our brain “may lose neural plasticity” (p. 128). “Neurologically, enlightenment and peace are unlikely…. [O]nly a small percentage of adults will reach a moral level at which their lives are governed by higher ethical principles” (p. 128), echoing Plotkin (2008). “Nonetheless, this level can be reached by those who choose to work diligently toward the ideals it involves, although this process can take decades of introspection and practice” (p. 128). Thus, “if we want to excel in any specific field, most of us will have to focus our attention on a limited number of goals…. Nonetheless, as our brain cells decrease, we can continue to build on and strengthen the millions of circuits in the brain,” like exercising the body (p. 130, emphasis added).

Consistent with much research, including Ariely’s (2010) studies, “our brain distorts reality” (p. 253). “The knowledge we glean from scientific studies depends largely on how we interpret the evidence [and interpretations] are filled with assumptions, generalizations, oversights, and mistakes [or] cognitive biases” (p. 253). Newberg (2006) provides a litany of 27 biases affecting our evaluations, perceptions, and beliefs about the world, including family bias,
authoritarian bias, confirmation bias, self-serving bias, in-group bias, out-group bias, bandwagon bias, probability bias, cause-and-effect bias, personification bias, logic bias, persuasion bias, uncertainty bias, emotional bias, blind-spot bias, the last of which Newberg cites the culprits of advertisers and politicians yet recognizing that “we all manipulate others to persuade them to embrace our own beliefs [and] often do this without consciously considering the other person’s interests or needs” (pp. 253-257, emphasis added). “If you want to become a better believer, the first step is to realize that every perception and thought includes a degree of bias, and thus every belief represents a compromise between the way the world really is and the way we would like it to be” (p. 258). Newberg cites some of the strategies the CIA uses to “teach its intelligence-gathering analysts to think more wisely and open-mindedly,” including to “try out the other person’s beliefs, …play ‘devil’s advocate,’ …brainstorm (‘quantity of ideas leads to quality because the first ones that come to mind are those that reflect old beliefs [and new] ideas help you to break free of emotional blocks and social norms’), …interact with people of different backgrounds and beliefs” (p. 259). “[F]or I believe that the world would be safer if we all took time to see the universe through the eyes of as many people as possible… Becoming a better believer requires that you temporarily suspend your innermost beliefs. This takes courage” (p. 260). “If you want to be a better believer, ask lots of questions. Be curious and don’t settle for superficial facts. Look closer, dig deeper, and investigate the course…. And most important, as I have emphasized throughout this book, keep in mind that we can never know for certain the accuracy of any beliefs, even those we hold most strongly” (p. 260, emphasis added). So “even if the entire scientific community agrees on an issue, and receives the endorsement of environmental groups and governments, this does not guarantee that the consensus is correct” (p. 261).
“The next step in becoming a better believer is to recognize that the maps we build can only approximate the truth about the world. Thus there will always be a fundamental gap between our knowledge, our beliefs, and reality…. This lack of knowledge is somewhat scary, but it is also the engine that drives our scientific work…. Being uncertain has its advantages, but it means that we can never capture the truth. Socrates embraced such a philosophy by questioning everything and everyone in his search for wisdom [and his] arguments terrified the Greek politicians because it challenged their moral beliefs, and so they put Socrates to death…. For Socrates, the power was in the question, not the belief” (p. 264, emphases added).

“[I]nflexible beliefs can ruin a person’s life” (p. 265). “In the end, we must always return to our beliefs. From the mundane to the mystical, they inform us about reality and they shape our future lives. And if the ultimate reality remains a mystery, so much the better, for it is the questions that give us meaning, that drive us forward and fill us with transcendent awe. At least, that is what I believe” (p. 280, emphasis added).

Newberg (2001) delves more specifically into beliefs about god. From a neuroscientist’s perspective on religion, Newberg (2001) espouses that “words” for an ineffable entity can only ever represent a symbol for something greater, and “beyond” the capacity of language (pp. 158, 160, 161). Newberg (2001) reaches an ultimate question of abstraction in addressing the brain’s activities involving and interacting with religious beliefs (pp. 162-166). Because the brain is structured for such spirituality, Newberg (2001) suggests the plausibility of it even as to “pragmatic implications” (p. 166), referring to various writers who view the mystical experiences for which the brain is capable, as possibly providing “the world with its last, best hope for a happier future, but allowing us to overcome the greed, mistrust and self-protective fears that have led to so many centuries of suffering and strife,” arising from “fear” and making us
“anxious” (p. 167, emphasis added), including such theological constructs in the next section. He suggests that “mysticism allows us to transcend these egotistical fears,” enabling us to “turn form withdrawal, suspicion, rejection, hostility…” (167). Akin to Haidt’s (2012) analysis, “It’s in our nature, it seems, to define survival as a matter of competition and conquest, as the survival of the fittest, as a ruthless game of dog-eat-dog. The human brain, after all, evolved primarily for the purpose of making us ferociously efficient competitors. We have a natural genius for …fiercely protecting our own best interests, no matter how narrowly or selfishly we define them” (pp. 167-168, emphasis added). “This does not mean…we are condemned…to live in a world of dissension and discord, because the same brain that inclines us toward egotistic excess also provides the machinery with which the ego can be transcended,” such that the “transforming power of these unitary states [of the brain], is what makes mysticism our most practical and effective hope for improving human behavior” (p. 168, emphasis added).

Newberg (2001) states, “Generations may pass before human society is ready for such transforming ideas, but it is intriguing to know that if such a time should arrive, the brain will be ready, possessing the machinery it needs to make those ideas real. The neurology of transcendence can, at the very least, provide a biological framework within which all religions can be reconciled. But if the unitary states that the brain makes possible are, in fact, glimpses of an actual higher reality, then religions are reflections not only of neurological unity, but of a deeper absolute reality” (p. 168). While “Nietzsche proclaimed God dead,” “There is nothing that we have found in science or reason to refute the concept of a higher mystical reality” (p. 169, emphasis added). “(E)ven from a scientific perspective, the nature of material reality may be more slippery than common sense would suggest. Albert Einstein certainly thought so” (p. 170). Einstein posited a man trying to understand the mechanism of a closed watch with no way
of opening, “he may never be quite sure his picture is the only one which could explain his observations” (p. 170). The best science can give is a “metaphorical picture of what’s real,” but “it isn’t necessarily true…. [S]cience is a type of mythology, a collection of explanatory stories that resolve the mysteries of existence and help us cope with the challenges of life…. [But] despite science’s preoccupation with objectively verified truth, the human mind is incapable of purely objective observations. All our perceptions are subjective by their nature, and…there’s no way we can slip free of the brain’s subjectivity to see what’s really out there. All knowledge, then, is *metaphorical*” (pp. 170-171, emphasis added). “But as C.S. Lewis’s poem suggests, metaphors are not meaningless, they do not point at nothing” (p. 171). The metaphor of God has enduring meaning because “it is rooted in something that is experienced as unconditionally real. The neurobiological roots of spiritual transcendence show that Absolute Unitary Being is [plausible]. Of all the surprises our theory has to offer—that myths are driven by biological compulsion, that rituals are intuitively shaped to trigger unitary states, that mystics are, after all, not necessarily crazy, and that all religions are branches of the *same* spiritual tree—the fact that this ultimate unitary state can be rationally supported intrigues us the most” (pp. 171-172, emphasis added). “[I]t makes a strong case that there is more to human existence than sheer material existence. Our minds are drawn by the intuition of this deeper reality…. As long as our brains are arranged the way they are, as long as our minds are capable of sensing this deeper reality, spirituality will continue to shape the human experience, and God…will not go away” (p. 172; Vaillant, 2008, pp. 3, 191).

William James proposed a test: “As William James puts it, pragmatism’s ‘only test of probably truth is what works best in the way of leading us, what fits every part of life best and combines with the collectivity of experience’s demands, nothing being omitted’” (Sands, 2003, p.
221). “In reality, James does believe that human needs ‘track the truth.’ On the basis of this conviction, he defends the thesis that success in meeting these needs substantiates the truth of the relevant religious beliefs” (p. 222). Although “James makes a plausible connection between the evolutionary history of human cognition and its practical, teleological nature…[e]volutionary fitness is correlated with survival, not truth; and it is conceivable that survival may at times be promoted by useful delusions” (pp. 225-226). “For James, human beings are most ‘alive’ when living ‘strenuously,’ and they are best able to sustain this commitment when their energies are fired by theistic faith” (pp. 226-227). “[T]he pragmatic method usually verifies religious truth claims only in a general way and in the long run. James often speaks of religious faith as a ‘working hypothesis’” (p. 228). “[T]he final determination of what is true will come only at the ‘final integration of all things’—after each person has freely exercised his or her right to believe…. Full verification awaits the future, but in the meantime ‘the freest competition of the various faiths with one another, and their openest application to life by their several champions, are the most favorable conditions under which the survival of the fittest can proceed” (p. 230). “James…accepts the principle that belief should be proportioned to evidence whenever the principle is practicable. Sometimes, however, the principle is not practicable, and in such instances James insists that the leanings and longings of the heart have a legitimate role to play…. Indeed, he explicitly states that most persons should be more cautious and self-critical in their religious beliefs than they are. The ‘cardinal weakness’ of many persons, says James, is that they ‘let belief follow recklessly upon lively conception, especially when the conception has instinctive liking at its back’” (p. 234). “James considered reason the weakest of our faculties, being slave to our prejudices, susceptible to the fluctuations of our moods, and vulnerable to the volatility of our passions” (Boyd, 1999, p. 27). “James may sometimes be misunderstood
because he emphasizes the precursive role played by the passional nature in the formation of belief. …James regards the mind as a teleological instrument that selects and appraises evidence in accordance with subjective purposes, interests, and preferences. This process is at work from the beginning of cognition; consequently, the subjective factors influencing belief are ‘always already there.’ Accordingly, what counts as a ‘live’ hypothesis depends on what an individual selectively attends to and preferentially regards…. James insists that ‘objective reality’ constrains an otherwise unbridled subjectivity. Motivated and influenced by subjective factors, the teleological mind is nevertheless forced to cope with a world that is not infinitely malleable—it has a hard facticity that in the long run checks flights of subjective fancy. For another thing, the mind itself ordinarily cannot rest when it perceives that its web of beliefs is internally incoherent. Indeed, James views human subjectivity as itself demanding that one’s beliefs logically cohere with one another” (Sands, 2003, pp. 236-237), and which new evidence or arguments may cause “temporary disarray within one’s noetic structure” (p. 240). James “does not hesitate to accept provisionally beliefs inspired by moral and religious needs, but in the end the truth status of such beliefs will be decided by the criteria [of his pragmatic method]” (p. 242), which compares favorably to Brueggemann’s (1997/2005) similar push-pull "adjudicative process” (p. 64), also noting that our "certitude" is provisional at best (pp. 60, 64; Boyd, 1985, p. 57). “Of course, no one can prove that this experience of the divine is veridical, but one has the right to believe it so—at least under certain conditions” (Sands, 2003, p. 245). As James said, “I firmly disbelieve, myself, that our human experience is the highest form of experience extant in the universe. I believe rather that we stand in much the same relation to the whole of the universe as our canine and feline pets do to the whole of human life…. So we are tangent to the wider life of things” (Durant, 1926/1962, pp. 516-517, quoting James).
Confirming Newberg’s (2006) statement regarding the few adults who reach a moral level of higher ethical principles, as well as his (2001) biological support for the brain’s capacity for religious thought, Plotkin (2008) asserts, “True adulthood, or psychological maturity, has become an uncommon achievement in Western and Westernized societies, and genuine elderhood nearly nonexistent…. This model for individual human development ultimately yields a strategy for cultural transformation, a way of progressing from our current egocentric societies (materialistic, anthropocentric, competition based, class stratified, violence prone, and unsustainable) to soulcentric ones (imaginative, ecocentric, cooperation based, just, compassionate, and sustainable)” (pp. 2-3). Sounding in Thoreuvean principles, Plotkin argues, “Arrested personal growth serves industrial ‘growth.’ By suppressing the nature dimension of human development (through educational systems, social values, advertising, nature-eclipsing vocations and pastimes, city and suburb design, denatured medical and psychological practices, and other means), industrial growth society engenders an immature citizenry unable to imagine a life beyond consumerism and soul-suppressing jobs” (p. 6, emphasis added). “[W]e live in a largely adolescent world…in great measure a pathological adolescence [such] that the majority of humans in ‘developed’ societies now never reach true adulthood. An adolescent world, being unnatural and unbalanced, inevitably spawns a variety of cultural pathologies, resulting in contemporary societies that are materialistic, greed-based, hostilely competitive, violent, racist, sexist, ageist, and ultimately self-destructive [but the societal symptoms] are not at the root of our human nature, but rather are an effect of egocentrism on our humanity [with] billions of people living a path-adolescent lifestyle of conspicuous consumption—or aspiring to one—while billions of others live in abject poverty” (pp. 7-8, emphasis added). “Thomas Berry writes, ‘We must invent, or reinvent, a sustainable human culture by a descent into our pre-rational, our
instinctive resources…. What is needed is not transcendence but ‘inscendence.’… Through an
individual’s initiatory time in the underworld of soul, she uncovers a dream, a vision, or a
revelation that will ‘inspire, guide, and drive the action’ for the rest of life, as Thomas says. ‘The
dream provides the energy for adult action’,” also described by mythologist Joseph Campbell
and identified by Carl Jung (p. 8).

“In current Western and Westernized societies, in addition to the scarcity of true maturity,
many people of adult age suffer from a variety of adolescent psychopathologies—incapacitating
social insecurity, identity confusion, extremely low self-esteem, few or no social skills,
narcissism, relentless greed, arrested moral development, recurrent physical violence,
materialistic obsessions, little or no capacity for intimacy or empathy, substance addictions, and
emotional numbness. We see these psychopathologies most glaringly in leaders and celebrities
of the Western world…. When we take an honest look at the people in charge of the
governments, corporations, schools, and religious organizations of industrial growth societies,
we find that too many are psychological adolescents with no deep understanding of themselves
or the natural environment that makes their lives possible. Many Western men spend their lives
aspiring to the adventures of early-adolescent heroism…” (p. 9). “Through psychospiritual
adventure, the adolescent comes to know what she was born to do, what gift she possesses to
bring to the world, what sacred quality lives in her heart, and how she might arrive at her own
unique way of loving and belonging…. The uninitiated adolescent does not easily give up her
claim on ‘the good life.’ Grasping this, we must invent, or reinvent, forms and methods of soul
initiation [which] is where our hope lies” (p. 12, emphasis). “I began with a great curiosity about
how people uncover their destinies, their place in the more-than-human world…. So I became
absorbed…with the question of how we humans grow whole…or don’t. I wondered why there
appeared to be such disparate levels of development among people uniformly considered ‘adults’” (pp. 12-13).

“Socioeconomic and personal development can be aligned, integrated, and mutually reinforcing. In both the personal and social senses, development is a matter of *waking up*—to our true potentials, our destinies, and our ultimate place in the world…. Individual maturation and cultural development have a third essential partner: the natural world” (p. 450, emphasis added). “Lack of personal meaning and fulfillment is endemic to contemporary Western and Westernized societies. Why are depression, anxiety, and suicide increasingly common? Social analysts point to the stresses and strains inherent in modern life. But I believe the cause has more to do with what we bring—or don’t bring—to life than with what we encounter *in* it. My observations of human nature…suggest that, other than socioeconomic oppression, the primary cause of individual distress is pervasive failure in human development…as found in, and caused by, contemporary *egocentric* society” (p. 451, emphasis added).

“When we’re operating in our everyday, conundrum-generating mode, any real solution, should we encounter one, will seem impossible” (p. 456). Plotkin quotes Lewis Carroll’s novel: “’There is no use trying,’ said Alice, ‘one can’t believe impossible things.’ ‘I dare say you haven’t had much practice,’ said the Queen. ‘When I was your age, I always did it for half an hour a day. Why, sometimes I’ve believed as many as six impossible things before breakfast’” (456). “But these solutions are *impossible* only from the perspective of the ego that has not yet *awakened* to a larger story and a more mysterious and numinous world than it has yet imagined. All dreams, visions, and revelations come to our conscious minds from a greater domain” (p. 457, emphasis added). “At the greatest moments of transformations—what Thomas Berry calls ‘moments of grace’—the ‘impossible’ happens. Like it did 2 billion years ago, when a certain
bacterium (eukaryote) learned how to metabolize oxygen (that is, breathe) and how to reproduce by meiotic sex. Or perhaps like the big bang itself, some 14 billion years ago, creating something out of nothing” (p. 457).

Plotkin’s (2008) point in these passages might be expressed by these lines from the movie *The Matrix* (1999): “Businessmen, teachers, lawyers, carpenters. The very minds of the people we are trying to save. But until we do, these people are still a part of that system and that makes them our enemy. You have to understand, most of these people are not ready to be unplugged. And many of them are so inured, so hopelessly dependent on the system, that they will fight to protect it.”

From a lighter and more economic perspective, yet corroborating much of Plotkin’s (2008) arguments, O’Rourke (2007) examines beliefs concerning the economic principles from Adam Smith’s (1776) *The Wealth of Nations* and *The Theory of Moral Sentiments*, seeking to “make life better” (p. 36). “Imagination may be our only distinctively human attribute…. Adam Smith did not think we are innately good any more than he thought we are innately rich. But he thought we are endowed with the imaginative capacity to be both, if we’re free to make the necessary efforts” (p. 37, emphasis added). “*The Theory of Moral Sentiments* and *The Wealth of Nations*, read together, do provide a blueprint—though it’s for the soul rather than society” (p. 37). Later reiterated by Thoreau, Adam Smith wrote, “The real price of everything…is the toil and trouble of acquiring it” (p. 46). To the surprise of some, Smith also wrote that “the oppression of the poor must establish the monopoly of the rich,’ and that profit ‘is always highest in the countries which are going fastest to ruin”’ (p. 47). Also, he was critical of the wealthy: “As soon as the land of any country has all become private property, the landlords, like all other men, love to reap where they never sowed” (p. 48). And, “They say nothing concerning the bad
effects of high profits. They are silent with regard to the pernicious effects of their own gains…. The interest of the dealers…in any particular branch of trade or manufactures, is always in some respects different from, and even opposite to, that of the public” (pp. 48-49). Yet, there “is no toil and trouble as bad as politics” (p. 55).

3 Theological Constructions

Notable theological scholars have developed a nuanced approach to solutions for informational gaps. Relating to the aforementioned statements by Thoreau, Tagore, Campbell, and others—connecting practical economic concerns to psychological and spiritual well-being—Oswald Chambers (1917/1992) wrote about the malaise many encounter: “Drudgery…has no right to be the rule of life. It becomes the rule of life because we ignore the fact that the dust of the earth belongs to God, and that our chief end is to glorify God. Unless we can maintain the presence of Divinity in our dust, life becomes a miserable drudgery. If we live in order to hoard up [and spend] the means of living, we do not live at all, we have no time to, we are taken up with one form of drudgery or another to keep things going” (p. 1).

Such practical realities of life occasion information users to confront certain aspects about the machinations of the world and to face "great disillusionment," "great tragic note," "great illusion," "great sense of deception," "great fear," "great disorder," and "great suspicion." (Niebuhr, 1989, pp. 80-82, et seq.). This litany occurs, in part, because “our motives are always mixed” (Stott, 1986, p. 48). “Men…above all else desire power…. [T]he hearts of men are easily corrupted” (Lord of the Rings, 2001). “What do all men with power want? More power” (The Matrix Reloaded, 2003). “[A] prophet might declare that God sees all of the arrogance and lust for power, all of the fear and bigotry, that lurks in our own hearts as well” (Talbott, 1999, p. 166). And theological scholars assert that there are certain ways of this world which
“make absolute demands and punish anyone who resists” (Wright, 2011, p. 217), raising the scepter of a choice, whether to resist such powers and “push back” (Culp, 2010, p. 154, 135), including whether to be “an eternal revolutionary” (Hordern, 1955/1968, p. 164). In the film Philadelphia (1993), the judge informs the lawyer: “In this courtroom, Mr. Miller, justice is blind to matters of race, creed, color, religion, and sexual orientation.” The lawyer responds, “With all due respect, your honor, we don’t live in that courtroom, do we?” Likewise, Jesus responded during his trial by Roman Governor Pilate, “My kingdom is not of this world” (Jn 18). And previously, he had alluded to this distinction, “In this world you will have trouble. But take heart! I have overcome the world” (Jn 16). Thus contrary to the maxim of Lenin describing religion as the “opium of the people,” and instead echoing the above Swahili Warrior Song, the choice between two worlds may instead result in trouble and struggle, leading Phillips Brooks to declare, “O, do not pray for easy lives. Pray to be stronger men! Do not pray for tasks equal to your powers. Pray for powers equal to your tasks! Then the doing of your work shall be no miracle. But you shall be a miracle. Every day you shall wonder at yourself, at the richness of life which has come to you by the grace of God” (Brooks, 1886, p. 330).

But recognizing what is wrong with this world may engender an awareness of how the world might be made right (Wright, 1996, p. 653, 1992, 2003, 2006, 2008, 2010, 2011, 2014). “[T]his is not an evil world, but a good world gone wrong” (Boyd, 1999, pp. 61, 113). “For always evil will look to find a foothold in this world” (The Hobbit, 2012). Yet “God so loved the world....” (Jn 3:16). In the former instance of a world gone wrong, hearts are made hard as stones (Brueggemann, 1977/1985, pp. 98-105, quoting Ez 11 and 36). In the latter, the world is transformed when god gives a new heart and spirit (Ez 11, 18, 36). As a bemused Chesterton...
(1908) observed, “Every man who will not have softening of the heart must at least have a
softening of the brain” (p. 55).

The threads from Niebuhr (1989) and Brueggemann's (1977) arguments, therefore, may
coalesce, connecting the Old to the New Testaments, as the heart is broken and is made flesh (Ps
51:17, Ez 11, 18, 36), and hardened hearts transform to the poor in spirit (Mk 3, 8, Mt 5:3, Mt
13:15). In this way, the "great disillusionment" is resolved and reconciled, as the kingdom of
heaven is made present tense, here, near, and now. There is also little doubt that these
interwoven worlds—arguably much like the wheat and the tares (Mt 13, Boyd, 1999, p. 57)—
include a form of Social Darwinism, reflecting in part that former instance of a world hardened
to self-protection, self-indulgence, or self. In the latter, one seeks first a different way, we seek
not our own way. “Here is the unknown Mystery made knowable, and his name is Love”
(Davies, 1971, p. 104). “The Bible, then, welcomes the positive aspects of our secular society.
But it also sets before it two questions: the mystery of the presence of God in our life and the
mystery of his commandment; his infinite succor and his infinite demand” (Davies, 1971, pp.
107, 91, 53, 48). “[L]ove can overcome all odds” (Glory, quoting Emerson, 1989). Augustine
alluded to these intertwined worlds involving an apparently deliberate paradox of struggle
necessary for human development, “I no longer wished for a better world because I was thinking
of the whole creation, and in the light of this clearer discernment I have come to see that though
the higher things are better than the lower, the sum of all creation is better than the higher things
alone” (Boyd, 1999, p. 42, 1998, p. 13), as did William Blake, "Joy and woe are woven fine, a
clothing for the soul divine" (1999, p. 171). “It is a phenomenon of capital importance for the
science of man that, over an appreciable region of the earth, a zone of thought has appeared and
grown in which a genuine universal love has not only been conceived and preached, but has also
been shown to be psychologically possible and operative in practice. It is all the more capital
inasmuch as, far from decreasing, the movement seems to wish to gain still greater speed and
intensity” (de Chardin, 1955/1975, p. 296). This position may be stated best in the hundred-
year-old opera Andrea Chenier, from its aria La Momma Morta, translated by Tom Hanks in the
movie Philadelphia (1993): "I am the god that comes down from the heavens to the earth, and
makes of the earth a heaven. I am Love." And the church prays, “Thy kingdom come, Thy will
be done, on earth as it is in heaven.”

This view seriously questions the extent to which the world plumbs the depths of what has
already been prioritized for it as the two greatest commandments (Mt 22). Augustine declared:
"Whoever, therefore, thinks that he understands the divine Scriptures or any part of them so that
it does not build the double love of God and of our neighbor does not understand it at all”
(Augustine, 397/426, 1.35.40, quoted by Knust on 2012, September 8). According to
Bonhoeffer, “it is impossible to separate these concerns. You cannot have true faith in God apart
from being in relationship with human beings, and you cannot be in responsible relationship with
human beings apart from true faith in God. Bonhoeffer’s theology will not tolerate what he
believed to be a false choice in defining the church’s mission…. In Bonhoeffer’s understanding,
the gospel always unites these two concerns,” to be “the man who lived for others” (Duff, 1994,
p. 265). Stated another way millennia earlier: the great ones are the “servant” and “slave” of all
(Mk 10).

Further, it sometimes seems that a particular aspect of that elevated priority is given short
shrift. While love, in its various forms, is often recited with assumed devotion and
understanding, one might challenge the vigilance to "love with all your mind" (Mt 22).
Theological scholars thus endeavor to refocus if not reorient to a necessary and elemental duty,
in the myriad ways which it entails. Through theological information, users may comprehend better that which is impossible to humans alone, wrestling like Jacob in the great drama and mystery of the world (Gen 32). Theological information thus suggests a space to struggle and grope for wisdom (Pr 2:3-4), to test everything (1 Thess 5:21, 1 Jn 4:1), to develop reasons for the faith (1 Pet 3:15), to “reason together” (Is 1:18), and to set minds on “things above” (Col 3:2, Phlp 4:8, Gal 5:22). And as such, “free will, by having ‘wisdom and strength enough to cast itself wholly upon God,’ can serve as a means of reconciling human ability and divine power, or being…. ‘The soul has transferred its allegiance from self to God…’” (Duban, 1988, p. 411, quoting Bellows, H.W.).

Poets remind of the self emphasis in that the “persistent fault in us may simply be an evolutionary fact, a concomitant of human consciousness and inextricable from it” (Wood, 2008, p. 113). Robinson Jeffers, who “has been called the most theological of American poets” (p. 112), “saw his work as expressing ‘a protest against human narcissism’” (p. 113). He “suggests some resources for a badly needed radical correction [such that] we might die to an old understanding in which we have long been trapped and be made alive to a new, transformative possibility” (p. 114, emphasis added). There is otherwise “no possibility of success, because providence…will always be coopted…. It will continue to be made to serve our felt needs for assurance and self-protection, providing [a] kind of ‘consolation’” (p. 114). Wood (2008) also quotes an anonymous fifteenth-century author, “‘For the more a man followeth after his own self-will, and self-will groweth in him, the farther off is he from God, the true Good…. But to this end, all self-will must depart…for so long as a man is seeking his own good, he doth not seek what is best for him, and will never find it. For a man’s highest good would be and truly is, that he should not seek himself nor his own things, nor be his own end in any respect…’” (pp.
114-115). This author “shares with Jeffers a sense of the urgent necessity of a reorientation of our affections” (p. 115). “To put off self-will is not to deny our worth and integrity but rather to affirm them at their source and to begin to recover them” (p. 115). Jeffers “alerts us to the dangers of the collective egotism of nation, race—or species,” but the older, anonymous writer “testifies more clearly to the rebirth of hope that accompanies a radical decentering of our desires, as we learn that ‘all our good is other than we thought’” (pp. 115-116). Two ancient texts reinforce similar themes. “Surely, in vain the net is spread, In the sight of any bird; But they lie in wait for their own blood, They lurk secretly for their own lives. So are the ways of everyone who is greedy for gain; It takes away the life of its owners” (Pr 1:17-19). “Why spend money on what is not bread, and your labor on what does not satisfy?” (Is 55:2, cf. Jn 6:27).

Thus, “quiet desperation” and malaise are introduced and cultivated into life, “choking” off life (Mt 13:7). The two worlds and our response(s) to them are illustrated in Carl Sagan’s film Contact, when Jodi Foster’s character confronts her manipulative former boss: “Unfortunately, we don't live in that world. Ellie.” To which she responds, “Funny, I've always believed that the world is what we make of it” (Contact, 1997). And in choosing which world we make of it, “Everything begins with choice” (The Matrix Reloaded, 2003; Boyd, 2005, October 16; Durant, 1926/1962, p. 516). “Since from first to last they are vulnerable before the powers that confront them, their lifelong need is to know that their basic environment, the ground of being from which they have derived and to which they will return, is for them rather than against them. If they can come to know this to the extent of really feeling it, they are released from the basic anxiety that causes them to try to elbow their way to security” (Smith, 1958/1991, p. 358, emphasis added).
So we return to the question state with which this section opened: the epistemology of what we know and the choice of two worlds. As one of the most brilliant atheists, and mathematicians, of the 20th Century Bertrand Russell said, “I lied and practiced hypocrisy, because if I had not I should not have been allowed to do my work; but there is no need to continue the hypocrisy after my death. I hated hypocrisy and lies: I loved life and real people, and wished to get rid of the shams that prevent us from loving real people as they really are” (Clark, 1975, p. 5, emphasis added). Russell’s desire for a different world of relationships echoes that of Flannery O’Connor: Friendship is “the inexpressible comfort of having neither to weigh thoughts nor measure words.” Another atheist, and prominent legal philosopher, Ronald Dworkin recently argues, “Even if there were no conscious human creatures that could experience the world, it would still be sublime. The universe is genuinely enchanted, and to stand in awe before it is not a curious feature of our mind but a proper response to what the universe actually is” (Halbertal, citing Dworkin, 2013, October 26). “The enchantment is the discovery of transcendental value in what seems otherwise transient and dead” (Dworkin, 2013, April 4, Durant, 1926/1962, p. 187, citing Spinoza). Theology scholars argue, “The law given by God is thus in harmony with man’s own essential nature. It calls man to be what he was meant to be…. He finds what he truly is” (Hordern, citing Tillich, 1955/1968, p. 174).

“Arguments can point to the strains and contradiction stirring within a position, they can even intimate new boundaries—when, in exultation, it throws off the yoke of custom—can lead it to a new philosophical commitment. Like faith, it is a self-initiated movement of the knowing mind as it reaches out to expand itself beyond its present dimensions. Reflective faith is that act of thoughtful self-trust by which we move beyond ourselves. In encouraging a mind to make a leap to a position beyond its present scope, revelation is more telling than argument…. In
philosophy, a revelation is a concept seen in relation to both the gleaming new principle it represents and the expansive feelings stirred in some mind at its birth; it is the lifting of the heart as an idea bursts into luminescence against the night sky…. [I]t is, rather, a steady and continuing play of light, a web of concepts, rationally connected, but by a reason bound neither by deductive nor empirical thought, which generates at once an intellectual illumination and an exhilaration of the feelings which stir commitment” (Diefenbeck, 1984, pp. 243-244). “By presenting a constellation of concepts in the light of the feelings they generate, a celebrant of reflective persuasion seeks a meeting with other minds…. It is the revelation of a form of action being thought and enjoyed which, more than mere argument, leads a mind to grow in conquering for itself the domain of a new insight which absorbs and unites what has gone before. But the highest purpose of such a celebration is that having gathered other minds upon a single thought, it encourages them to move through and beyond it to further initiations” (pp. 243-244).

“The deepest need of those who have no vision is the need to catch the spirit of that solitary dreamer on whose soul has broken a light that does not depart, and who can turn the hearts of others to fire” (Boyd, 1998, pp. 108, 94). “The goal of speculative thinking is none other than to live as much as may be in the eternal, and to absorb and be absorbed in the truth” (Durant, 1926/1962, p. 506, quoting Santayana). Although dreamers are questioned as impoverished artists, whom Thoreau may have envisioned building “castles in the air,” their gifts of grace may yield a breaking glimmer into this world. In the film Babette’s Feast (1987), Babette’s gifts to others using her last mite of her lottery winnings, worries her befriending employer: "Now you will be poor the rest of your life," to which Babette replies, "An artist is never poor." Hence, as Harvard professor and poet George Santayana exhorts, “Bid, then, the
tender light of faith to shine. By which alone the mortal heart is led, Unto the thinking of the thought divine” (Santayana, 1917, Durant 1926/1962, p. 518).

4 Social and Public Policy Applications

Brooks (2014, February 23) uses an ancient parable, interpreting it as a basis for contemporary social and public policy. “As I hope you know, the story is about a father with two sons,” the young prodigal son who blew his demanded premature inheritance “on prostitutes and riotous living” and then returned home, and the elder son who responsibly worked in his disciplined, rigid, and rule-following compliance and angrily demurred at his father’s beneficence toward the self-indulgent prodigal (p. 4P). Consistent with the aforementioned theology scholars, Brooks extolled the central morale of that old story through the character of the father, as he “exposes the truth that people in the elder brother class are stained, too,” and “reminds us of the old truth that the line between good and evil doesn’t run between people or classes; it runs straight through every human heart” (p. 4P). Brooks concludes that the father (1) “teaches that rebinding and reordering society requires an aggressive assertion: You are accepted; you are accepted. It requires mutual confession and then a mutual turning toward some common project”; (2) exhorts “that if you live in a society that is coming apart on class lines, the best remedies are oblique. They are projects that bring the elder and younger brothers together for some third goal: national service projects, infrastructure-building, strengthening a company or a congregation”; and (3) “offers each boy a precious gift” of work and self-discipline for one, and of surpassing “the cold calculus of utility and ambition” and experiencing “the warming embrace of solidarity and companionship” for the other (p. 4P).

Such pragmatic applications have also been articulated for leadership skills. “Books on leadership often appear on best-seller lists. Most of them tell how to become a powerful and
effective leader. But Henri Nouwen’s book *In the Name of Jesus: Reflections on Christian Leadership* is written from a different perspective. The former university professor who spent many years serving in a community of developmentally disable adults says: ‘The question is not: How many people take you seriously? How much are you going to accomplish? Can you show some results? But: Are you in love with Jesus?... In our world of loneliness and despair, there is an enormous need for men and women who know the heart of God, a heart that forgives, that cares, that reaches out and wants to heal’’” (McCasland, 2014, February 26).

Critiquing the recent film *The Wolf of Wall Street* (2013), a similar analysis is applied to multiple social issues: "The question that gnaws at me is whether there’s something amiss in the vast gray area that leads right up to that line. Are the Belforts and Madoffs unnatural mutations, or are they inevitable outgrowths of attitudes that have taken root in our communities? We don’t, as a community, like to talk about money and wealth and how to acquire it and how to spend it. ... But these are the conversations we need to be having. What’s the right way to make money? How much is enough? How much must we share, and with whom? We are blessed to be living at a time of unparalleled Jewish power and wealth, and it makes us so uneasy, we prefer to talk about everything but. We have benefited from an economic and political structure that is becoming less and less just. We are enjoying unprecedented wealth as millions struggle on minimum wages, facing hunger, unemployment, benefit cuts, homelessness. We look to our rabbis and institutions for guidance, but too many of them are afraid to upset the wealthy donors upon whom they are dependent. So we talk instead about Israel, about Swarthmore, and our communities become breeding grounds for the next Madoff, the next Belfort."
CHAPTER IV

ANALYSIS

In some way our hearts must live. If we truly live, we will talk clearly and avoid the solitary trek. In some way we must manage to blend poetic insight with a craft and unite intimately the rational and the intuitive, the aloof stance of the scholar with the passion and affection of the friend who cares and is moved.


The analysis embodies the amalgamation of the aforementioned methods, literature review, interview data, and other information sources. It weaves numerous threads to form a tapestry, particularly on those life issues that often fall off the edge of the grid, are susceptible to denial, or which otherwise succumb to general confusion.

It likewise provides analysis and potential modification(s) to information-seeking models to account for information-avoiding behaviors and nondeterministic activities, to assess the vagaries of ambiguous information needs and questions, and to clarify the more holistic ways in which our brains use information and could be usefully guided toward solving information gaps, which may then suggest other areas for future research.

A. Theoretical Framework and Philosophical Themes

We read and write poetry because we are members of the human race. And the human race is filled with passion. And medicine, law, business, engineering, these are noble pursuits and necessary to sustain life. But poetry, beauty, romance, love, these are what we stay alive for. To quote from Whitman: ‘O me! O life!... of the questions of these recurring; of the endless trains of the faithless... of cities filled with the foolish; what good amid these, O me, O life?’ Answer: that you are here; that life exists, and identity; that the powerful play goes on and you may contribute a verse; that the powerful play goes on and you may contribute a verse. What will your verse be?

movie Dead Poets Society quoting Whitman
1. Overview

The initial prod for this research was consideration of the lives of present-day high-stress professionals, in light of a Thoreauvian worldview. As it became apparent that there was no simple set of documents and experiments that could provide a single definitive answer, we spent considerable time weaving together an accounting from the literature of issues at hand. The tapestry of literature establishes the research as a biographical enterprise as much concerned with the nature of question as with the “unexamined life” and “quiet desperation.” The tapestry hangs as the stage setting around the lower right portion of the Maron, Levien, O’Connor question matrix (as interpreted by Kearns). This MLO matrix provides the background for understanding that even a well-considered and well-constructed question at the heart of an investigation can morph, can evolve, can essentially turn itself inside out as the work progresses, considers itself, stumbles upon unforeseen notions:

![MLO matrix diagram]

This does not mean that articulated queries lose all pertinence in such an examination, nor that gathering data will be of little use; quite the opposite. Yet, as with any biography, there are many facets and variables and few simple explanatory constructs. A holistic and integrative approach is necessary to aid the dilemma of information users encountering certain known or unknown information gaps and needs. The very notion that a user may not be able to anticipate or articulate their query is itself evidence for the usefulness of the taking a variety of types of
information from multiple disciplines, if necessary, as it often is, to catalyze, generate, trigger, spark, stimulate, jog, juggle, and struggle, with the fuzzy notion of a merely partially aware issue. Indeed, taking seemingly unrelated pieces and sources of information may itself aid in the clarification of the problem, if not potential solutions.

Through such analysis, a new model or approach may emerge, with the “hope that within [these] pages there have emerged threads of ideas of some significance to our colleagues actively engaged in using, designing, or evaluating human information-seeking behavior [and] hope that current and horizon technologies for collegial interaction will enable the continuation, expansion, and weaving of these conversational threads into a more robust conception of humans in their information environment” (O’Connor et al., 2003, p. 137). It further endeavors to have “contemplated the current state of information studies and looked to engineering and postmodern sensibilities to illuminate what might be in the shadows of our understanding” (p. 137).

Like Bush (1945), Patrick Wilson (1977) suggested a new professional role as a trailblazer, which he called an “information doctor” (pp. 118-119). An information doctor may also aid the user in distinguishing between efficient filtering, rather than harmful denying. One might also call such role an information lawyer or information advocate because an important aspect is that such professionals build a case with multiple information sources from disparate areas.

This approach assists the information user in understanding each phase of problem, solution, and objective, overcoming potential denial which prevents their confronting and dealing with a decision, and becoming aware, or “flipping the switch,” to enable the changes necessary for the user to escape their own enslavement to a particular problem. Put another way, weaving threads of various information sources into a persuasive case may permit or allow a user to see, possibly for the first time, not only a clearer picture of their individual problem but also
the guideposts to a personal, if not customized, solution fitting an individual’s situation. Because neither the information user nor the information professional can know all the potentially useful information relevant to the situation, multiple sources of information may allow the information professional to assist a potentially unwitting information user who faces difficulty in articulating or describing their information need.

Using one form of information from a notable American literary figure to identify a potential information need, one may draw the following information gap between two extremes on a spectrum. On one end, Thoreau identified “quiet desperation,” and on the other end, he suggested a heightened sense of *carpe diem*:

- “[T]hat if one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined, he will meet with a success unexpected in common hours.” (p. 267).
- “I wanted to live deep and suck out all the marrow of life.” (p. 75).
- “If you have built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them.” (p. 267).
- “However mean your life is, meet it and live it…. Love your life, poor as it is.” (p. 270).
- “Let every one mind his own business, and endeavor to be what he was made. Why should we be in such desperate haste to succeed and in such desperate enterprises? If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away.” (p. 269).
- “I do not propose to write an ode to dejection, but to brag as lustily as chanticleer in the morning, standing on his roost, if only to wake my neighbors up.” (p. 70).

Thoreau, with other poets, suggested conceptual factors to analyze how we think, deny, and/or forget about this gap throughout our lives. Such writings provide a persuasive model to explain, understand, and possibly bridge that information gap in the day-to-day confusion many information users confront.
We can ask what lies in the information gap or anomalous state between the two poles. These may include the sources or causes of the problem itself, which by simply being made aware of and acknowledging them, the information user may convert what has blocked their goal into bridging a way to their goal. Thoreau isolated three particular issues as the blockage in this gap between problem and goal, for which he also suggested remedies. Generally, they involve frugality, independence (or nonconformity) and transcendence rather than narcissism, and higher (and transcendent) goals and aspirations through nature and spirituality. Indeed, he provided specific examples of each of these dilemmas, which he arduously admonished us to avoid.

From Patrick Wilson and Thomas Gilbert’s suggestion to reformulate information (of the problem, the bridge, and the plausible solution(s)), the result may be a Thoreauvean model. By anticipating both problems and solutions as a tutor or guide, this model may provide a prevenient approach to decision-making, as the progenitors of all great ideas have been.

2 Terminology of Information-Seeking Behaviors

An important place to start may be with the most basic terminology used in the literature. The academic literature typically refers to “information-seeking behavior.” As this analysis also posits, a different and deeper analysis of “seeking” is necessary to better understand the human thinking and decisional process to further cognitive research. Information scientists tend to eschew or chafe at the phrase “information behavior,” arguably for some good reasons, among them that it may be overly broad, or possibly nonsensical or susceptible to misinterpretation to suggest that it is the information whose behavior is being studied; indeed, if information is a statistical description of an arrangement of bits, it is clear that information cannot behave. While most of the literature is focused on the active seeking of information, more recently the beginnings of discussions are arising to catalyze other important aspects of the information using
process that are, for example, less than active and in many cases outright opposed as users erect obstructions and obstacles to personal awareness of either the problem, gap, need, informational solutions, or the very enlightenment and awakening information and knowledge one hopes to accomplish.

A more apt and accurate term may be “information-related behaviors” or “information-need behaviors” which, though still broad, may better convey the nature of a need existing or possibly existing yet not necessarily with an answer intentionally sought or with a question even currently known or articulated by an information user. The basis for improved terminology will be amplified by the foregoing analysis and development of a theoretical framework of the human thinking and decisional process.

As the preceding literature review demonstrated, recent questions have been raised about a purely linear analysis using a linear flowchart to suggest that an information user progresses from query to sources through analysis to resolution. As addressed, supra, regarding the Wilson Model and modifications to it in Appendix B, adjustments to such flowcharts are required to modify the “A-to-B-to-C- boxes” approach in such diagrams to present “exit ramps” at which users may be diverted by denial, or dissonance, or backsliding, or reversals, or encountering disinterest or frustration to garnered “progress.” These recent proposals to delve deeper into alternatives to the presumed “active seeking” may better reflect the reality of what is actually occurring in the minds and corresponding “behaviors” of information users with a need or gap.

3 Denial and Nondeterministic Approaches

The aforementioned MLO matrix in Appendix C presented the strategies and behaviors utilized by users depending on the awareness, interest, and grasp of a given information gap. If a user has the epistemological awareness and thus “knows” its query, as well as the question being
sufficiently specific, narrow, and easily articulated, the user can reasonably and readily obtain a
precise answer to resolve the pertinent need. Such queries would be reflected in the upper right
portion of the MLO matrix. In such instances, for example, one can fairly easily and quickly
ascertain the year in which the Declaration of Independence was authored, the date the
Emancipation Proclamation was executed, the multiplication tables, or a recipe for cheese
enchiladas. “Active seeking” is an apt description of these types of informational searches. The
user is deliberate, intentional, and sufficiently interested to seek out an answer to their
encapsulated question.

But as one moves toward the lower right edge of the MLO matrix, the seeking process
becomes more indeterminate. Intentionality lessens for any number of reasons, including that
the user may not be able to identify as easily the most appropriate search terms, remember a
phrase or a name necessary to complete a successful search, or otherwise simply be unable to
articulate their unsettled state into a sufficiently recognizable query necessary to resolve it.
Nonetheless, while somewhat less in degree than a clear and “active” seeking, there remains a
desire on the part of the user to sense an informational dilemma and to attain closure on it, which
could be described as a “fuzzy” rather than “active” form of seeking.

Continuing toward the lower right edge, if not off the MLO matrix entirely, another
behavior is encountered. In this instance, a user is not intentionally or deliberately seeking an
answer to a clear and specific question at all. Indeed such users may be partially or even wholly
unaware of their informational need. This is neither surprising nor uncommon, and it may be
further described as stumbling, groping, or wrestling with a discomfort that “something just isn’t
right” or that “I feel stuck in a rut” or that “you don’t know what you don’t know.” If this type
of “non-seeking” behavior becomes so pronounced that the user is intentionally and deliberately
desiring to avoid the question, information, or solutions, then that behavior once again becomes “active” in its intent and may properly be described as denial, avoidance, blunting, and cognitive dissonance. This additional category of behavior is also neither surprising nor uncommon, and may be called willful blindness, a sought-after state of “out-of-sight-out-of-mind,” or even “ignorance is bliss.”

These behaviors may be graphically presented in the following diagram:
Human Thinking & Decisional Process
(“Cognitivity”)

Seeking

Mirror-image

Not Seeking

Active

"Fuzzy" (Seeking)

"Fuzzy" (Non-Seeking)

Active (Denial)

Nondeterministic Model
The overlaps convey the appropriate measure of openness, if not the vagaries, of words and language in general in attempting to delineate whatever sense may be in a person’s brain into the “hit-or-miss” approach of precisely articulating words in an effort to convey what they are thinking and trying to communicate for their own purposes or with other users, consistent with Wilson’s (1960) intensive analysis. Reflecting the actually imprecise nature of the reality of conveying feelings and thoughts into communicable symbols – e.g., words, numbers, pictures, images – the overlapping areas also signify that a user may be shifting or struggling in and out of these four categories. As a user, for example, gravitates from a less intentional “fuzzy” seeking into a “fuzzy” non-seeking, such overlap might be an occasion in which one may be merely slightly aware of feeling “troubled” or “unsettled,” but yet uncertain and unintentionally and even subconsciously wrestling and groping for some improved understanding of that vague notion or feeling. Similarly, if a user is in a “fuzzy” state of non-seeking but begins to gain some clarification of the ambiguous notion, one may then repel a question, answer, solution, or other information that the user senses may be disturbing or distressing and hence an overlapping area with “Denial.”

In the financial arena, one can easily hypothesize a situation in which an individual overhears co-workers talking about a stock market crash during the financial crisis of 2008-2009. Getting an unsettling feeling from this bit of information that the individual neither sought out nor wanted, he or she may then avoid opening bank or 401K statements received in the mail for some period of time for fear that they will unpleasantly face disappointing information in the form of a drastically reduced retirement account – i.e., the “nest egg” is smaller or gone. In the health and medical field, an individual may become aware of some bit of information in the form
of abdominal discomfort, but fearing bad news of cancer or some other malady, he or she may avoid seeing a doctor or scheduling an annual check-up or returning a call to obtain test results.

Several caveats, corollaries, and amplifications are useful at this point. First, this phenomenon may occur at multiple distinct “edges” of the MLO matrix: at the lower right corner as the process becomes ambiguous, vague, or avoided, or even before one approaches the upper left corner to engage in “active seeking” because he or she knows something already and does not want to know anything more about it or chooses “ignorance is bliss.”

Second, the MLO matrix may encompass both the T. Wilson linear model addressed by Case et al. (2005) as shown in Appendix A, and the nondeterministic model by O’Connor et al. (2003), as shown in Appendix D. The Wilson model may adequately represent the narrower and more precise question state of “actively” seeking a multiplication answer or a cooking recipe, also corresponding to the upper right corner of the MLO matrix, to the largest left to downward right arrow in the center of the nondeterministic model, as well as the far left circle proposed in the above Venn diagram. While a more abstract or ambiguous query may be better represented at the lower right edge of the MLO matrix in Appendix C, by the added multi-directional arrows on the nondeterministic model, and by the “fuzzy” seeking and “fuzzy” not seeking circles of the proposed Venn model. A different problem arises with these various models once the behavioral concept of Denial is introduced. As addressed in the preceding chapter, the Wilson model must be modified to include Denial because it does not explicitly include it (see, Appendix B). As noted above, the MLO matrix may or may not overtly include Denial, which may occur, however, just off certain edges of that matrix. The nondeterministic model similarly may not expressly reflect Denial because its arrows are multi-dimensional, but not halting, reversing, or regressing, and instead assumes even the most vague notion of pondering or sensing the question
state, as does the MLO matrix. The overlapping circles in the instant proposed Venn model suggest, however, that some continuity or shared characteristic may exist between “fuzzy” non-seeking and Denial. For purposes of this analysis, however, the proposed Venn model identifies only the two circles of “fuzzy” behaviors as akin to the nondeterministic model, thus segregating or separating the two the circles for “Active” and “Denial,” with the caveat that some modicum of them may be included in that nondeterministic model, likely more of “Active” and less of “Denial.”

Third, similarly due to these vagaries and limitations of language, these four circles could be drawn with greater or lesser overlaps depending on the situation, the question state, and the extent commonality, particularly with regard to the three non-“Active” circles (i.e., “Fuzzy” (Seeking, “Fuzzy” (Non-Seeking), and Active (Denial)). Independently yet complementing this point, the four circles likewise might be drawn of differing sizes to reflect their relative proportionality to one another. While no precise estimate might be gained to expand or shrink each circle to an exact “scale” reflecting reality, I chose to leave the size of all four circles “as is” above, to make the following point: despite the fact that the preponderance of academic literature has focused on “Active” seeking, it may reasonably be anticipated that future research may show that the “Active” seeking behavior or activity actually represents merely about one-fourth (or one of four circles) or even much less of the reality of thinking, decisional, and brain processes. It may turn out that with future and more advanced technologies and invested research that we currently deny the much larger role that “Denial” plays in cognitive activities, as well as does a larger role for the two “Fuzzy” circles of activities.

Fourth, P. Wilson’s (1977) construct of an “Information Doctor” may not only be useful, as he had proposed, but its usefulness, role, and potential or relative benefit to the user may vary
depending on which of these four behavioral categories the user finds itself. If a user is in the first circle, farthest to the left, of “Active” seeking, an Information Doctor can still provide a beneficial purpose by guiding and directing the user to helpful information or sources in which a resolution may be had. In such cases, the active seeker is willingly or intentionally seeking information, and the doctor presumably need not be obliged to engage the user in a heightened or enhanced manner necessary to convince, persuade, or cajole the user to “see the light” of relevant, timely, and applicable information to their need, though they may be required to nudge or direct the user toward greater enlightenment and illumination. But if an information user instead falls into one of the three categories to the left of “Active” seeking, the usefulness and relative benefit conferred by an Information Doctor continues to rise because, in part, the need for such guidance and direction also increases. In addition, time and resource efficiencies may also likely be gained, particularly to save the user’s time in not “reinventing the wheel” or otherwise squandering hours or days in misdirected pursuits or aimless browsing when one has at least some notion of the general extant need. If one wanted to locate tools and other informational resources to, say, brush up on math or language skills, an Information Doctor may suggest specific books, workshops, websites, tutors, DVDs, or other products which may best fit that user’s immediate needs. If a user was generally unaware of a need or its contributing to a user’s sense of feeling “unsettled,” an Information Doctor could talk to the user, ask questions, learn about the user, serve as a “sounding board,” and through such process assist the user in identifying a potentially causal connection between the unsettled feeling and an articulable information gap. Similarly, an Information Doctor may contribute a temporal benefit to a user who sits in the state of “fuzzy” non-seeking and thus does not see or even anticipate an issue that may not arrive within the user’s mindset for six months or six years. Finally, at the extreme end
of not-seeking – i.e., the far right circle – a user may be actively in “Denial” of an informational need. It may involve financial, health, career, mental health, relationship, or any number of other possibilities occurring in life and sometimes eschewed by those trapped or stuck in such circumstances. In this instance, the potential benefit of an Information Doctor might be stated in a dramatic but useful way – without a possible intervention to save the day or even a life, the user’s denial may contribute to perpetuating an unhealthy and disastrous cycle. Thus, if an intervening Information Doctor can slow or stop a “snowball” or “domino” effect toward calamity, the benefit might be seen to increase exponentially.

As P. Wilson (1973) suggested, the conferred benefit may depend upon and is likely enhanced by an Information Doctor serving as a tutor or mentor with specific personal knowledge about the user’s personality, interests, identity, backgrounds, and needs. In this way, the doctor offers both an objective perspective of which the user may be “too close to the problem” or otherwise be “missing the forest for the trees” or “straining a gnat,” as well as a subjective perspective to apply such evoked and maybe elicited information about the user to better determine the right “fit” for the particular user and his or her specific need. Another quality may be increasingly necessary as one moves right along these four Venn circles. An Information Doctor’s utility exists not merely from having a possible specialization as to certain information or knowledge, but may depend upon the user developing a trusted relationship and respect for the specialist’s judgment and expertise. While this may be true in all instances for both “seeking” and “not seeking” modes of behavior, it may become more evident in the two circles under the “Not Seeking” subheading when an Information Doctor is called upon to help the user in a “fuzzy” and/or “denial” state—i.e., to the right of the vertical line in the Venn model—to break-through whatever fog or blinders may obstruct a positive resolution. Some
may differ, however, as to the degree or even benefit of certain types or levels of subjectivity in a relationship. For example, the medical profession has long extolled the virtues of rigorous objectivity due to the belief that subjective or personal attachments and projections may cloud otherwise rational clarity and judgment. Thus, the above Venn model may be modified by adding an arrow beneath it which illustrates the increasing relative benefit provided by an Information Doctor as one moves from the left circle to the right on the Venn model:
Human Thinking & Decisional Process
(“Cognitivity”)

Seeking

Active

"Fuzzy" (Seeking)

"Fuzzy" (Non-Seeking)

Active (Denial)

Not Seeking

Relative Benefit...

"Information Doctor's"

Increases
Fifth, the foregoing analysis also suggests another corollary of these behaviors. In some respects one may view this theoretical framework of four overlapping circles as a kind of continuum. As with the MLO matrix, one begins at the upper right edge with a clear and interested and “active” behavior toward a particular question state, consistent with the initial “active” seeking circle on the left. However, awareness and clarity diminish, even to the point of possible passivity, as one slides farther right on the continuum into a “fuzzy” state of ambiguity and obscurity to the point that one is “not seeking” a solution to a known or unknown, unanticipated, or unarticulated query. This continuum presents a set of information-related behaviors, consisting of seeking and not seeking information:

But as already hinted, the left and right extreme ends both involve an active or intentional quality. There is an effort or a choice extended either to seek or to shun information. Hence, the paradox arises in which the two ends of the continuum turn in toward each other, when measured by the user’s level of intent:
The two arrows meet at a juncture where intent – for or against – relating to the information is strongest. This paradox, therefore, has a mirror-image and multi-dimensional or 3D quality to it. As indicated in the Venn model, left of the vertical dotted-line could be viewed as the mirror image of the right side.

Sixth, the status and development of a question state also obviously impacts the process and influences the user at it changes. Depending on the user’s state of awareness, the reaction to newly accessed information, the decisions at each fork-in-the-road moment, and the guidance of an Information Doctor, the process will appear to have a give-and-take, back-and-forth, backwards-and-forwards “dance” or “struggle” toward the possibility of some form of possible conclusion. Rather than the assumed “A-to-B-to-C” linear process to resolve a need or gap, there will more likely be a multi-directional character to the process. The aforementioned nondeterministic models in Appendices D and E may be arguably said to reflect such occurrences with arrows darting in differing directions, as contrasted to a linear progression of the flowchart, such as in Appendices A and B. Simpler matters of a date, recipe, or basic math can be dealt with and analyzed somewhat easily. But the much broader and abstract questions are far more difficult to grasp, articulate, and just deal with. Dealing with such issues of whether one is happy or miserable in one’s life, whether knowing why or not, having buyer’s remorse over particular decisions, unaware of what options and choices are available, determining a career or education at the outset or a subsequent desire to change careers or obtain a new direction in education or in life. These abstract thoughts and ideas are most certainly of a more nondeterministic nature, and information users across all temporal, geographic, and geopolitical strata grapple with such visceral ponderings. The nondeterministic model addresses, however, the potentially swirling and grappling process that ultimately progresses directionally toward a
solution. It arguably does not include the introduction of denial or avoidance into the mix of other types of human thinking and behavioral characteristics. When denial occurs, the arrows may backtrack, go in reverse, or even come to a full stop at which point an information user ceases all progress on a given issue, problem, or information gap.

Accordingly, the MLO matrix utilized a transparent arrow as an overlay to present moving across strategies and behaviors toward the lower right edge. The nondeterministic model shows multiple arrows, albeit still moving toward a potential resolution reflected by a lower-right direction. Taking a broader situation of dealing with abstract life issues throughout an information user’s life, I propose a chart in which we alter the directional flows which begin with an individual’s birth at the lower left corner and move toward the inevitable upper right corner representing one’s death:
Topsy-Turvy Realities of Life

(the pear-shaped balloon of human multi-directional queries)

Death

Birth
At each corner, the information user encounters an overwhelming array of amounts, types, welcomed and unwelcomed, invited and uninvited, of information and informational sources. At birth, humans, while not entirely with a “clean slate,” contain their genetic information of which they are generally unaware. This “Realities Balloon” serves merely as a starting point for a model of the incongruities and nondeterministic encountered by each life. Thus it arguably can be shaped in multifarous forms by squeezing the balloon, so to speak, such that its shape may be more oblong or otherwise distributed. For example, Steven Pinker’s (2002) Blank Slate asserts that evolutionary genetics instills much more information in the new life at birth, preceding the question mark shown in this figure. While true, this figure seeks additionally to illustrate the “point of use” of obtained information and the continuing encounters of information throughout life, despite still nearing or approach death with many remaining question marks. “[T]hinking is social; it occurs not only in specific situations, but in a given cultural milieu. The individual is as much a product of society as society is a product of the individual; a vast network of customs, manners, conventions, language, and traditional ideas lies ready to pounce upon every new-born child, to mould it into the image of the people among whom it has appeared” (Durant, 1926/1962, p. 524, citing Dewey).

And unlike the directionality of some more concrete issues, life travels in a known direction toward an ending, before which the individual collects accumulating layers upon layers of known and unknown tidbits of information, and some of which will be discarded or forgotten in time. Nevertheless, humans begin with a question state and end with a question state, and between those two points, innumerable question states, gaps, thoughts, ideas, needs, decisions, and choices are encountered. Incidentally, though arguably related to this phenomenon, is the description by Columbia physics professor Brian Greene in his books The Elegant Universe
(1999) and *The Fabric of the Cosmos* (2004), the theory that every conceivable alternative
decision may exist in multiple and parallel universes. It is almost impossible to conceive of how
one might graphically present all the infinite dimensions implicated by such theory. Fortunately,
or not, for purposes of this analysis, I will address only the forks in the road taken in the lifetime
of a user in this universe and on this planet. Whether viewed as a conflagration, morass, or
Mount Everest of informational opportunities, the user’s journey begins and it will end.

The “Realities of Life” figure attempts to convey, and unlike the nondeterministic model
for “typical” and less abstract queries, that the directional arrows may move forward, sideways,
or even backwards. Humans may shun relevant issues and information or even regress in certain
respects. Denial and cognitive dissonance may prevent seeing an issue in whole or in part. We
may merely “see through the glass darkly” due to information or misinformation, missteps along
decisional forks, misguided conclusions from misunderstood information, and ultimately impede
our own ability to resolve an informational gap. Yet while the direction of a given question state
may reverse or be fully halted, the directional journey through even the swamps of misbegotten
information inexorably continues toward our demise, at the upper right of this Figure.

Throughout such travels, however, we may encounter the “lightning strike” of some epiphany for
our lives or to specific questions, we alternatively may encounter a clouded fog of indecision or
of feeling stuck in a rut, and we may feel the warmth and shining light of understanding and
awareness when a gap reaches closure.

This graphic conception of the most abstract of life’s information needs serves as the
platform to analyze how a theoretical framework may be weaved using seemingly disparate
information from assumed discrete disciplines to help guide users with these core and essential
needs.
B. Data Collection and Qualitative Compilation

*It’s unbelievable how much you don’t know about the game you’ve been playing your whole life.*

movie *Moneyball*, quoting Mickey Mantle

1 Subject Interviews on Seven Topics

One portion of the hybrid approach adopted for this analysis includes the in-depth interviews of eight adults, educated and experienced in the professions of law and accounting. Furthermore, all Subjects hold professional licenses and graduate degrees, have work experience at large professional services firms, and are over age 40. In all instances, these eight interview subjects gave candid, honest, accurate responses, in an open exchange in the course of each lengthy, in-depth session. These interviews elicited responses to 47 questions, which for purposes of clarity and efficient structure, may best be organized within seven topical categories. Pertinent excerpts of the subjects’ responses are summarized as follows for the seven broad categories:

a. Decisions & Choices (relating to career/profession/job/educational paths)

The interview subjects were asked questions pertaining to their life choices about career and educational paths. These questions included inquiries such as:

- why did they make the choices they did
- what factors impacted such choices
- what did they think others in their field would answer
- what are the positive and negative aspects of their chosen profession
- what changes they would make in career choice
- what percentage impact would such a change have on their happiness
- what are the factors preventing such changes
- whether they thought their choices had been well informed
- what would be the impact of more or different information on such choices
- what they would have done differently or wish they had known
- what are key factors making them and others in their profession “successful.”
What some may find somewhat astonishing in the subjects’ responses was the frequency with which virtually all of them answered with “I don’t know” and/or “because of fear or being afraid.” In a sense this may be confounding, considering that all such interview subjects are highly conscientious, educated, successful in their chosen profession, academically accomplished and quite intelligent, and broadly experienced, in part, from working at large professional services firms. Yet, in another sense, such responses may be expected in that they respond to inquiries seeking projections into the future and/or introspection about the “road not taken” and hence imagining what might have been.

As one might expect, these subjects also provided many answers, which may arguably be anticipated from these types of questions, and considering their professional backgrounds and licenses. Money was a predominant factor identified in making career choices, along with the relative pay and positions of immediately available alternatives. The companion to the income response was the commensurate factors of lifestyle benefits, status and prestige, ego-stimulated positions among peers, hoped-for interest and challenge from the work itself, and the possibility of working with like-minded people in that office colleagues would be similarly educated, motivated, curious, and inquisitive.

It might also be anticipated that the positive responses about their careers and choices were dwarfed, overshadowed, or subsumed by their negative sentiments. The standard response invoked by questions touching on satisfaction, met expectations, and the happiness versus misery catalyzed by their choices, and their sense of how their closely-situated friends and colleagues felt, was that fully 80-90% were highly dissatisfied if not miserable. Moreover, this same proportion would opt for doing, working at, or altering their existing careers/jobs toward
virtually anything else, were it not for the constraints, many of which had been self-imposed or enabled, particularly as they related to the next major topic of money.

b. Money

In this category, the interview subjects were asked various questions pertaining to their life choices about money, income, spending, and their impacts on life choices. These questions included inquiries such as:

- how and whether money affects their choices
- whether different amounts of money in the form of compensation would result in different choices
- whether making less money would result in different choice if it included a preferred life interest
- whether they would relent to spend less if it enabled pursuit of a preferred life interest
- what they and others overspent on
- the extent to which spending and budgeting issues were considered by them and others in making such choices
- what choices they would make if tomorrow they were relieved of all debts and their savings were doubled.

In this category, while the response of “I don’t know” still occurs, it arose disproportionately less, as the test subjects had much stronger positions on these types of questions. Virtually all respondents remarked about the obvious need for money, and it being a dominant factor in many primary decisions, for them, their families, and their peers. As one conjured the applicable cliché, “money doesn’t grow on trees,” and it significantly constrained most of them in their ability to make changes in their present circumstances. Most of them also, however, were quick to identify a variety of personal interests for which they would be willing to make sacrifices in either lower salaries, cut expenses, or both. But age, self-esteem, and flexibility were each connected in their minds to their income levels. And additional concerns arose if they did take the risk of an alternative career and lifestyle, which may later prevent their returning to prior positions and pay levels.
The most frequent expression might be summed up in two words offered as responses, that most people spend too much on “crap” or on “everything,” and that a significant reason is for escapism or denial in the form of entertaining oneself constantly and of avoiding reflection on many other more important issues in people’s lives. This sample of lawyers and CPAs may be somewhat unusual or non-representative in the sense that most of them are generally conscientious in already maintaining a reasonable level of consumption and spending, though more usual in not specifically engaging in or assessing them in terms of utilizing a particular or regular budgeting process. The subjects are also more representative in that they consider most others among their peer groups, as well as in society at large, to be much more cavalier and irresponsible in their spending behaviors, as evidenced by the aforementioned and quoted initial responses. Inevitably, while many of them have consistently lived more frugally than their peers, they also recognized that further spending cuts and budgetary measures could be taken, and that they and their peers are ultimately subject to the pressures of “keeping up with the Joneses.” All but one of the eight professional subjects has children, which constituted a significant constraint on budgeting issues, and in some cases, whether each felt it was viable to forego a job to stay at home with the children. One subject noted the spectrum of peers of many “stay-at-home moms,” one of whose husband made a substantial salary, for which they lived in a 10,000 square foot house, and bought $150 designer jeans for a toddler. Notwithstanding such circumstances, it is also relevant to note the context at the time these interviews were conducted: all eight interviews were taken approximately three years after the “Great Recession” of late 2008. On the final subset hypothetical of eliminated debts and doubled savings, the consistent responses included: “freedom,” “I’d cry from relief,” “free from bondage,” “awesome!,” “ecstatic!,” “drink to that!,” “wouldn’t quit immediately for need to save more and set role
model,” and finally, “that’s like a unicorn.” Although most of these subjects seem to lie within the middle range of the spectrum with regard to income, budgeting, and the comfort level about them both, my sample did contain one at each more extreme sides of that spectrum. One subject may actually be more representative of most professionals that most would ever be able to admit, with inconsistent revenue streams, stifling debts, and constant anxiety believed to impact negatively on health and longevity. The second may be a rare species: self-described as choosing a miserly or extreme frugal existence in early professional years, this subject has maintained a specific plan throughout stages of the career, including a timed plan to achieve certain financial and retirement targets by specific age increments, and thus comfortable within such modest lifestyle in having the flexibility to quit or retire at will.

Many Americans might be envious of last subject, but that might depend on the perspective elicited by the initial inquiry concerning what constitutes the “good life,” within the next category of questions.

c. Thinking Process, Inputs, & (F)actors

In this category, the interview subjects were asked various questions pertaining to their life choices about broad and expansive swath of issues and factors which might influence or affect their decision-making. These questions included inquiries such as:

- the aforementioned description of the “good life”
- role of time management (evoked by Thoreau’s “life is frittered away by detail,” and Lennon’s “Life’s what happens when you’re busy making other plans”)
- stage or shortness of life issues (suggested in Steve Jobs’s 2005 Stanford speech anticipating his 2011 death at age 56)
- helps and hindrances to their idiosyncratic thinking processes, their selection between depictions of linear versus nondeterministic models (i.e., akin to Appendices A and E)
- general influences or impediments to their thought process depending on different topics (e.g., job and financial security, relationships, competition, etc.)
- peer pressure and “keeping up with the Joneses”
- other influences within culture and society (e.g., suggested by Flannery O’Connor in urging to “push back against the age as hard as it pushes against you,” or T.S. Eliot’s
comment that “Most of the trouble in the world is caused by people wanting to be important”)  

- the impact of materialism and narcissism  
- the influence of globalization and generational trends  
- the shifting trend of more single than married adults  
- the impact and relevance of economic and policy issues (e.g., taxes, energy, interest rates, healthcare, insurance, education, Social Security and Medicare, demographics, immigration, etc.).

By this point in the interview, it seemed that each subject had begun to settle into and to reach deeper within his or her psyche and personal opinions. It is important to remind along this summary of responses, that these are highly educated and experienced professionals, because while often explained in a nuanced perspective, it seemed that such responses may reasonably be extrapolated to positions held by so many non-professionals in society. As one might anticipate, the subjects recognized the standard or cliché expressions of “the good life” in American culture, of having a full bank account, full and fully furnished large home, a full garage of luxury vehicles, a full schedule of entertainment and vacations and trips, etc. But they also noted a sense around themselves of peers who “have millions but want billions.” The most emphasized descriptions involved less stress and the time and availability to be around those people of their choosing, close friends and family. Or as one put it, to have “an abundance of happiness and an under-measure of stress,” as well as to quit “beating their head on a wall.” They also perceived a shallowness and that most are disingenuous or plain dishonest about what they are after – one subject citing that those who claim to “love the law” (as Tom Hanks said on the witness stand in the movie Philadelphia) are “lying to themselves”—likely in an effort to convince themselves or otherwise situate in denial to cope. As one stated, “no tombstone says ‘I wish I’d billed more hours’.” But most subjects reflected the view of the good life as having a balanced and financially secure life, with time and flexibility. Again, stress was a common and repeatedly mentioned force they wished to avoid, worrying about “unnecessary complications,” or of “debts
or losing job,” stating that it “weighs heavy and takes away life.” Impressing others in Dallas was another factor, yet noting that the pursuit of ego is “pointless.” As in prior questions and categories, the themes of feeling “trapped,” having “anxiety,” and wishing for “financial freedom” to be “free to make decisions” arose often. For these time-pressured professionals, a frequent refrain was the value and necessity of time management, not getting distracted, or not letting the trivial take time from the important. But though some felt compelled to deal with trivial and/or administrative tasks, they hate having to do it, feel that others avoid it including by flattering that the subject enjoys and/or is good at it, and in the end, the subject is saddled with it just to get it done and/or to avoid confrontations over the task. Subjects asserted that “autonomy affects happiness,” so having control over things in life helps, and that being “stuck to a paycheck” produces unhappiness. One subject noted that the solution to so many issues and problems is to pursue the destruction of the ego. They cited the “worry to get things done.” One subject expressed: “used to feel that I didn’t have a life, no separation from work, now not feel as dedicated or consumed by job.” Another among these accomplished professionals noted that “even as a kid, I wanted a superpower to stop time to get things done.” Another noted the belief that many people use frittering as denial, avoidance, or procrastination, allowing the frantic and long hours at the office or on particular tasks. One subject compared the frittering to lost expenditures of both time and money and the compounded loss of each that accumulates over time.

All subjects acknowledged the factor of stage of life, age, and death as impacting decisions, but most also recognized an inherent denial concerning them, and the influence of other values, such as “keeping up with the Joneses,” the “Darwinian” nature of keeping up and competition throughout life, the desire to be liked and perceived as important (raised even prior
to arriving at the aforementioned T.S. Eliot quotation), and the continuing theme that they “didn’t know” what to do or what to be and thus were left to “stick to the status quo.” There were additional interesting comments shading the issue and the impact on thinking processes: one having a “family history of dying young”; one expressed the counterintuitive claim of being “willing to take risks as I get older, in terms of changing jobs for less money, especially in exchange for an option or equity interest”; observing parents who lived depleted lives because they were “totally financially ignorant and illiterate,” and sought approval and glamour. One lawyer recounted a story of a closely known lawyer friend who had accomplished partnership in a law firm, had kids in private schools, multiple Lexus SUVs, a fully-furnished expensive house, country-club memberships, and yet revealed over drinks, “I live paycheck to paycheck, wake up in a cold sweat wondering what I’d do if I didn’t get my next paycheck.” Others expressed certain practical realities: the fear of leaving a position and that “avenue later being closed off”; feeling “trapped” due to lifestyle, children’s expenses, being a provider, and/or overcompensating in splurging for their kids because they had felt deprived from such things themselves – one described this latter situation as “the driving force in my life.” But one offered positive reflections: why limit oneself at a later age if “it’s really what you want to do,” although the dissonance of constrains due to age were also noted. The subjects abjured that time is a factor, and time is fleeting.

Virtually all subjects agreed with the 2005 Jobs’s quotation relating to one’s death putting priorities into perspective, but they each provided caveats and nuanced exceptions to it. One noted the great confidence required to fulfill the standard Jobs espoused, but qualified that it sometimes left one being an “ass and mean,” as Jobs is sometimes reputed to have been. Another recognized trade-off was that one could pursue one’s dreams, noting “our priorities are
off,” yet noting we “must plan for the future and assume we’re going to be here” in order to elude feeling trapped and to gain some autonomy. That Jobs’s speech was set in context as a commencement speech, one subject recognized that it was too philosophical for most people, who instead were more concerned with the “day-to-day realities of paying kids’ private tuition, taxes,” and that for most people at this point in life, it was hard to change with existing obligations. Another sounded the recurrent theme that for most people they simply “don’t know” what to do or how to pursue such changes, but cited the value of having balance and realistic expectations. One further claimed to be “cognizant that some people with cool sounding jobs also hate their bosses and have other problems, so it’s about acceptance of realistic expectations and knowing yourself,” including the need for structure in life and for feeling productive. But we “tend to kid ourselves that life is infinite,” especially when young. So while noting the trade-offs, the concurrent dissonance remained that “I’m not there yet to adopt that mindset,” because for now the focus is on survival, noting that we are in denial of our fear of death.

As to specifically evaluating their own thinking process, most identified the desire to balance out the relevant factors and priorities, and stating that fear was among the emotions (as well as anger and selfishness) which hindered the process and which they sought to better control. As lawyers and CPAs, all gave weight to analytical and rational processes, rather than visceral or emotive. But they also noted their disdain for being second-guessed or blamed, over-thinking everything, feeling “petrified of making mistakes,” “beating up myself forever.” To remedy, they suggested their attempts to take a long-term view, not rushing to decisions and avoiding spur-of-the-moment choices, saying “No” more often, “sleeping on decisions” overnight, and diminishing the impact of what others might think or do. One lamented that
irrespective of whatever information one obtains, “you can’t know how it will turn out,” which can then lead to “reactive than proactive tendencies.” Yet for most a dissonance arose, seeking more information, more education on a topic, and more pragmatic emphases. One recognized the limitations that when younger, the subject had adopted the easy belief that life should be seen as “nothing but up and nothing would change that,” which turned out to be true for many years, aided by “riding the coattails of others.” They recognized that they “still have blinders and rationalize” things, but they seek out conversations with particular and valued friends for certain information and for the hope of added objectivity, noting that “one can never be 100% objective on information.” Nevertheless, as professionals, virtually all viewed themselves as more linear thinkers, rather than nondeterministic, particularly when applied to their work, but less in their personal and emotional lives. One subject noted the dissonance and denial prevalent in contemporary society, believing that most “view life as being for immediate gratification and lasting forever,” not recognizing that the satisfaction from eating the pie leaves the reality that we must deal and live with the calories. Hence, the philosophy becomes “ignorance is bliss,” choosing not to know the difference, and thus believing the illusions or delusions about oneself and life. Another noted their black-and-white thinking of feeling they either know or don’t know their reasons on a given decision, and otherwise feeling “stalled” or “stuck” when they “don’t know what direction to go” next. When delving into what “affects their thinking” among multiple life categories, they interestingly filtered responses down to fewer factors, with money, death, family members, satisfaction from work, having the “good life,” and noting that “everything in life is give-and-take,” a trade-off or compromise. And yet while hoping to discover something “engaging and challenging” on which to be “accomplished for their reputation,” most subjects of all ages had not seemed to feel that they had found it, noting that
“most lawyers choose only to do things for their reputation and success, but are not honest about it – nice guys do finish last.” Two notable comments include, “Only common thread is money, it affects everything,” in how we judge a person, to what they “do” and “drive,” etc. Another noted that “life is limited, whether we figure it out or not,” and then quoted the Crosby, Stills & Nash song: “never pass this way again, life is a game, ship away.”

The inquiry next turned to broader and more external factors influencing the subjects’ thought process, from smaller subgroups they encounter on a fairly regular basis to the culture and society at large. Overall, most subjects acknowledged that others’ opinions and views had a marked influence on their personal decision process, though it rose or waned depending on circumstances and extant conditions. Most, but not all, suggested that with time and age, they began to care less, as one put it, “nothing permanent, everything temporary, and I’ll be dead in 30 years.” Another noted that it is the “socially ambitious who set the tone,” and who had made the subject “miserable at some [law] firms.” But with time, they also appreciated what they thought they should instead value and allow to affect their thinking, though nuanced by accepting valid criticisms and observing others who “never deviate from their course of rat race and die in their offices,” and not wanting “to be them.” One subject noted the recurring theme of the trade-offs in such choices, and noting their personal tendency to value material things less, but professional status and position more. “People want to impress others so badly…even subconsciously,” so this respondent tries hard to avoid it, yet sees even their young child influenced by it (e.g., in a dress another girl wears). One parent recounted the “crazy stories” of the peer parents amidst the competition for their progeny, noting that it is placing “great pressure on kids.” One respondent concluded that they were “more comfortable in own skin than used to be, and that all are affected by this influence to some extent unless they’re naïve.”
As to the broader culture and society, one subject reflected another recurrent theme of dissonance, in others being more affected than they were, but “if won the lotto, might also want trendier styles and dress.” One parent stated that what emotionally affected them most were the snobbery and the snubs, but less so for themselves, but with more concern when seeing their child affected by it. Another said, “It doesn’t influence me as much as most; 80 percent [of population] are significantly influenced.” Yet another commented, “I don’t believe you can separate yourself from the influence of culture and society.” Others said that a person “can’t avoid it” and that it is “inescapable.” For example, one noted their decision to be a lawyer based on a TV show. But analogizing to an answer to a prior question, one noted “it’s like emotions: if you make yourself aware of it then you can recognize and control it to some degree.” One of the younger respondents in this sample stated, “Society has changed a lot over our lifetime.” The media and marketing seek to influence all, including children, deliberately to affect their minds, to make all individuals their consumers, “to want all that one sees,” and to “teach kids that having and wanting is something to strive for.” One opined that it affects the churches “more than law firms.” Another noted the “culture war” of values, with different worlds of ethics and opinions, with many finding whatever the culture exhorts to be acceptable, resulting in a “continuum of gray” and a worldview that it is “up to you to decide what is right,” which this respondent likened to enhanced “moral relativity.”

While virtually all agreed with F. O’Connor’s admonition to “push back,” the nuances fell into two categories between a balanced view of trade-offs (i.e., yes, push back against “superficialities,” but “silly to push back against evolving technologies”) and a more adamant view requiring the need to not merely push back but to “push harder” due to “the age” exhibiting
incrementalism, constancy, and often moving imperceptibly. Some further noted the paradoxical view and an inherent dissonance, in that there needs to be counterbalances, that most want others to do something about the problems rather than themselves, that we must change and adapt to “the times,” that we must have friends and get along with the “world around you” yet should not be “sheep,” should not “blindly accept,” and should “question” to “see the problems as they are” in figuring out “how to live within the system…and to how change to fit in certain ways” (e.g., live beneath means, save, select jobs to make happier; otherwise, lead to anger and destruction when always “swim upstream rather than with flow”). “There’s more to life than money,” a refrain also uttered by UK Prime Minister David Cameron. One claimed, “It’s not all negative…I like my iPhone.” Another expressed the pragmatic notion that one must be “careful whose opinions you consider and the weight given to them.” “Some decisions may make life easier, but harder and riskier ones may be right and better.” “Pushing back is the only healthy thing to do, but more often than not I haven’t done it.”

Certain strands were typical in reaction to the Eliot quotation about seeking importance: the obvious narcissism, but again some further dissonance by one or two. Yet overwhelmingly – arguably not surprising by those experienced in white-collar fields – all respondents saw this factor as replete throughout careers and culture. “Important and rich…100% true.” Another: “Resounding yes, all people want is 15 minutes of fame, and willing to do bizarre things for it.” One cited the “Casino Jack” Abramoff movie as an example of how Washington, D.C., and the world work. “The wealthy and powerful people control machinations of society, though some people exist who believe in something higher, for the good of Mankind.” “I may want it but not at cost of other things…and I’ve seen others sacrifice fidelity and happiness and self-worth for wealth.” One initially asserted that lazy people are the “trouble,” but later found those seeking
importance “can be more trouble than the lazy.” Another propounded that this seeking importance is “inseparable of choice and life,” and that “some lawyers use it to get leverage.” One subject claimed “hubris gets in the way of good decisions,” and another found it “refreshing to meet and talk with a person and later find out they hail from a prestigious school, hold a prestigious degree, etc.” “It affects way people treat others more than anything, how they decide to respond in given situations, seeking to be perceived in particular ways.” “Lawyers spend lots of time, energy, and money to achieve a community perception,” and this aspect can result in one “not calling a spade a spade.” “The quotation is true, but superficial—only part of it—it’s what drives a person to be important that is important.”

In terms of trends relating to materialism, narcissism, globalization, generational and relationship shifts, the responses recognized the “huge” influence and problems associated or potentially congruous with them. “It’s not ‘Mayberry’ but ‘Stepford Wives,’ who seem nice but prefer to be around the wealthy.” “They are extraordinary over time and progressively increasing and feeding on itself.” Some believed that “99% are entitled because they don’t have it,” that “there’s both corporate and individual greed,” that “the key factor in people’s decisions is self, even if not technically narcissism.” One stated a prevalent attitude of “Damnit I work hard and so I get what I want; I work all the time, and majority of life is spent working.” “I’m not sure we recognize our narcissism, but I’m judgmental on others who demonstrate it around me.” Globalization is “after every person,” and has consequences “in ways we can’t even perceive.” The “middle class is disappearing and without it the country can’t do well.” “Our country is lazy and other side of world is thankful to do a job for 90% less; in a culture of starving people, they would be grateful for 10% of what we have.” “In 20 years people will be lucky to have a job in U.S.” “You have to be nimble, quick, flexible, and have a good attitude
just to keep a job.” “Technology and communications becoming one world, so we have to get along.” “There are pros and cons: 50 years ago there were atrocities that we wouldn’t know about, aware of, or do anything about, but now social and media makes us aware, so world can step in and do something about problems.” “Some view insular society to be perceived safe,” but every day an issue changes the world. “I’m ignorant and have blinders – my kid’s not taking Mandarin, I’m more insular and that’s probably not a good thing; I don’t think about it much.”

Globalization has “enormous impacts; a ripple in Greece can now affect my 401k; it’s a very small world, and it’s all technology driven.”

As to generational and relationship shifts, again the respondents thought these were relevant and significant factors, with differences in how they viewed the impacts. Baby Boomers will “have health issues” from lifestyle choices, and “can’t retire because their 401k’s dropped.” “People are resilient.” “Gen X and Y are less loyal employees, having seen their parents laid off every few years, are now more family than career centric, and hold an expectation of entitlement.” With schools incorporating the best technology, “students come to believe that is ‘normal’.” “Pros and cons: kids more aware of environment and world, encountering other cultures, but more risks of sex predators.” “Profound impact, political correctness higher, and align by not questioning it.” “One should not become bitter about generational issues, but learn from them and enjoy, not lecture, and can’t stop it anyway.” “Don’t know; hard question, don’t think about much, but think technology is good, though personal relationships suffer; they expect information to come to them and not seek it out – Google versus library research; and there’s less critical thinking and it’s getting worse.” “Another factor is educated women: the majority of mothers in my groups are in age range of 36-41, with none in their 20’s, so there’s a shift to focus narcissistically on self, education, career, and other things come second; there are pros and
cons to the rise of the feminism movement and the decline of family.” “The influence to me is mostly annoying, noting a lackadaisical attitude, and unable to call a spade a spade.” “Values have changed so that it’s no big deal if live together or have kids without marrying, except to religious right—don’t know what it means to the future.” “Younger generations see parents split up and don’t want to be encumbered by commitment, as well as wanting an upscale life, with the attitude of ‘don’t want to share my resources and time and rather have my own happy life’.” “Being single gives options and flexibility.” “Not sure, don’t know, stock answer of ‘tearing fabric of society’ but that’s a truism by definition, and I’m not persuaded yet, and not sure whether there’s one way a person has to be.” “With tough economy, less savings and working longer, but it may not be bad as Boomers do leave work and the rest work longer to pay off the Boomers’ debts, though such workers cannot retire at 65.” And more singles “may not be bad, if two people save more than one, on housing, going out.” Others expect “population declines,” “later marriages,” “and relationships less deep,” but “good thing could be that divorce rates decline.” “Women are in better position, can support self, pickier and narcissistic, finding perfect person.” “Younger generation affects family perspective: it’s not just about making me happy all the time, in the focus being greater on career, education, and self.” “A Time magazine study recently showed that young men do not want commitment.” “Hollywood influence the young,” noting Kim Kardashian.

At the conclusion of this third section of the interview, with the question addressing multiple economic and policy variables, virtually all respondents again viewed them as significant, tied to money, and causing reactions of denial and “I don’t know.” “These issues result in middle class demoralized and angry, with head in the sand on solution and they don’t know what to do.” There appear to be paradoxes or contradictions in “paying for the expensive
few on healthcare and punish those who take care of themselves [physically],” “bail-outs yet bonuses,” but “if middle class was thriving they’d be more willing to pay for all, but they’re not and can’t, when they’re unable to get their own kids educated, so it adds insult to injury.” “Masters’ degree is a minimum because competition will be fierce; teachers burn-out in three-four years; Social Security will be bankrupt; all costs will go up and services limited.” One subject expects that “all categories will be worse and with consequences, but after about 5 to 10 years people get accustomed to it and will not know the difference.” Society “will become a more static and caste system,” ironically portending Charles Murray’s (2012) book “Coming Apart.” “All [these variable/issues] are relevant and will have extreme impact, with result of culture wars and it’ll be about money, in paying for limited services and leading to increasing mediocrity.” “It depends on how we decide such issues, and it’ll define the next generation; there are culture wars, a polarized system, and large numbers on both sides of each issue, and thus emotional because it impacts us individually.” “Demographics and immigration issues affect all these other issues.”

Having reached approximately the midpoint of the survey questions, at this juncture a more senior respondent acknowledged another important, revealing, if not confirming, aspect of this study: “This survey interview makes me think more about what honestly influences me.”

d. Favorites & Valued Qualities/Attributes

In this category, the interview subjects were asked various questions pertaining to their life choices about values, favorite things (e.g., books, movies, music), what matters most to them, and how they think they will be remembered.

The themes in these resources of books, movies, and music involved stories “with people whose vocations change lives,” “where the guy with principles comes out on top, especially if
brains are involved,” “the skin-deep stuff, where people mistakenly jump to conclusions and judge a book by its cover,” “good guy conquer bad guy,” “players who face fears head-on, like life to be in constant motion and not standing or waiting but taking the ball,” “love rooting for the underdog,” “where keep plugging along, pushing on through,” and “where person is disadvantaged, for example in circumstances when growing up, and overcomes the odds despite bad family or upbringing.” Specific citations included “Scent of a Woman,” “Dead Poets Society,” “Seabiscuit,” “Mr. Holland’s Opus,” “Shawshank Redemption,” “Grumpier Old Men,” “Second Hand Lions,” “Mississippi Burning,” “Sophie’s Choice,” “Notting Hill,” “Die Hard,” “Braveheart,” Josh Groban’s “You Raise Me Up,” “East of Eden,” “Ulysses,” Lennon, Twain, Dickens, “Tale of Two Cities,” “Great Expectations,” “A Christmas Carol,” and Edith Wharton’s “House of Mirth.”

When inquiring into their highest valued priorities and what moves them, respondents’ answers varied: faith, spouse, children (“all I do is really for family”); sex, money, and aforementioned themes of “plugging along,” “good guys win,” “but now things are gray, too many loopholes and rationalizations,” good guys don’t wear white hats, and gray area of letter of the law and “laws vast and detailed”; friends and making others happy; family, “fiber moves me,” “problem is that nothing moves my heart except seeing my child grow into a responsible adult”; “that’s easy, my child and spouse, being a mom changed me, more sappy, see things in different light and relate to things differently, makes real and heart-wrenching”; “my children, heartbreaking how quickly they grow up, and the moment they’re born they start moving away from you, watching them discover themselves and with wonder in their eyes”; survival, financial survival, “particularly at my age, and part of it is ‘where do I go from here,’ but with ‘competing interest of deriving some enjoyment rather than it just being a drudgery’,” and moves me to see
things moving in the wrong direction, at church, leadership, etc. And about how they will be remembered? “Just want my kids to know that daddy loved their momma and loved them deeply, all else is irrelevant”; “honest and fair, led by example, don’t give a crap whether liked or not, worked hard for everything I got, because core belief is that ‘American Dream is a real thing’ and available to everyone who is willing to work for it, if blessed with healthy body and mind”; “that they smile when they think of me, that I added a little joy to their world”; “not care, it’s for others to decide”; “I keep hoping to do something interesting, good caring person, good mother and wife, not compromise values, and would be nice to do something more meaningful”; “that I was loving and kind and thoughtful, always prioritized my family, and sharing more about why it moved me to be more involved in my religion”; “large part dictated by age, self-fulfillment of a meaningful thing, not really know, tons of time on my interests and all for naught”; “hard on self, not live up to my potential, feels disappointing, capable of a lot because very smart, honest, and straightforward, decent and kind to people, reached out, dependable, a friend to a few, and good family life, matters how kids turn out to be, otherwise not matter that I was here at all.”

At the conclusion of this section of questions, at about the two-thirds benchmark, a respondent at the midpoint age of the sample range commented: “I really am enjoying doing this [survey]. [People] should do [this] out of high school, but we would not appreciate it till age 40. It’s what’s lacking in early education, this kind of wisdom, because the price is high without it. Need this in the 11th grade. For the forks in the road, we need introspective thinking, which institutions and education are not providing.”

e. Mentors, Guides, & Informational Resources
In this category, the interview subjects were asked various questions pertaining to their life choices about decisional resources and tools, including mentors, guides, and developed informational tools.

Virtually all respondents said that mentors and tools would be “enormously” helpful, particularly for them, but as their answers evolved, they then questioned themselves about the efficacy for many others due to a variety of counterinfluences, dissonance, and other factors. Some may find the subjects’ responses somewhat astonishing, for a group of mature, ambitious, highly educated and successful individuals, in that virtually all of them found they were inadequately informed, prepared, or educated for most major life choices in education, career choice, and relationships. At least two subjects initiated use of the term “absolutely” useful, and two others volunteered the notion of a “wizard” as such a guide or mentor. One noted that it would have “helped me avoid a lot of pain and wasted time.” And without being prompted by another T.S. Eliot quotation, one said the issue is “not just a matter of research for the information, but what is wisdom, and how and where get it; we have too much information and not enough wisdom.” Another noted it was not “hypothetical” question because this respondent “did have guides and tutors and they had profound influence, though they aren’t a wizard on your shoulder.” Such guides “steered me,” and “I don’t know how anyone makes it in the world without them, and [more people] can have them if they open their eyes and listen.” “It would help to have a smart guy, a wizard, to help with what questions I should ask, things I didn’t think of or wasn’t intelligent to ask, but I didn’t have something like that.” Another, “It’s good blah blah, but hard to believe I’d have changed decisions. I had a law firm ‘mentor’ who did not get it and was tone deaf. People made the decisions they made, and then many claim they ‘did it for their kids,’ but I don’t think so.” “My parents did what they could. It’s difficult for anyone to be
truly mentored by one or two because we each have our own biases, so hard to obtain objective advice/input, but if such mentor existed then it’d be beneficial. So helpful if a mentor knew you and knew the person you are and the life you lead, and looked at the factors of choices best for you. I made career decisions as a kind of fantasizing about what profession/career is, on images that may or may not be true (e.g., TV, movies, or what others told me).” “In the abstract, of course, assuming a person you could trust and respect and confide in – someone mature, wiser, with years spent in that particular world who had perspective on thing you’ve faced and with standing to talk about it (e.g., ‘Did you consider this?’). But at the end of the day a young person thinks as a rule: ‘that doesn’t apply to me but to everybody else’ (e.g., ‘others get lung cancer, not me’).”

When presented with two charts serving as informational tools on basic financial and budget planning, the respondents again found such tools to be beneficial personally, but more of them cast doubt about whether in the end, they would alter the habits or thinking process of others. For example, while one subject found such tools and advice “very insightful,” the subject quickly added, “Others had given advice that hadn’t worked for me, or had pushed something on me against my nature.” The same respondent further stated, however, that regarding such information involving basic financial literacy, “few know this, use it now, or live within means,” and further noting a variety of bases of denial, anxiety, and false hopes of being rescued by lotto winnings. Another noted that such informational tools “should be taught in Jr. high [yet] we fail to education people [concerning basic financial literacy, and in doing so must] keep it simple.”

Most responses included elements that “people do what they want anyway;” that situational relevance played a significant role when “I discovered on own and saw result it blew me away so I got interested” or when “it’s at the right time of life and then could make all the
difference in the world” or when “it relates to my field or issue, then helpful because then very focused, but it depends on the person to use it”; and that in many instances “I think it’d be helpful, but I don’t know, because it then depends on other factors such as self-discipline,” or other emotions, concerning “peer pressure,” “engrained to feel important,” “keeping up with Joneses,” whether it gets “psychologically reinforced,” or some other “personal or emotional trigger, such as not being satisfied with current affairs.” One subject proffered the maxim: “100 pounds revenue, 99 pounds expense = happiness; but 101 pounds expense = misery.” Another provided the example: “I developed insecurity and was unhappy about the job and future, and knew I was spending time on the treadmill and that the way out was to buy out, so I could soon walk away to early retirement.” Another offered: “If I knew then what I know now, I would’ve reached out to more and different people to get more information, and wish I’d done and known it was ok to do.” Some were more sanguine in that “some people are clueless and won’t make changes (e.g., ‘people knowing they should exercise but don’t’).” And most also emphasized the critical importance of selecting the right people from which to obtain information, which then must also be “super user-friendly” to get most people to use it.

f. Denial

In this category, we directly investigate a topic that has been pervading and shadowing most of the prior interview questions and responses. The interview subjects were asked questions pertaining to the role of denial, avoidance, and cognitive dissonance in their lives and the lives of others; as well as whether such conditions were involved in some of their most relevant life choices.

Juxtaposing two subjects’ responses make a pertinent point: “A lot, denial plays a large role in this culture, and I do a lot,” versus “I don’t think it plays a big role in my life now, but it’s
big in the culture now.” Most all respondent recognized certain other qualities about denial and
dissonance: people use to distract from issues such as not having “needed investments or
healthcare, or about how powerless they are,” and instead “focus on things that don’t matter.”
Another noted the “differences between what people say they believe and what they do,”
including being lonely, wanting the “taste of love,” needing “immediate gratification.” “And it
plays out in all areas (e.g., finances, careers), so we all wear masks and diverge from those
beliefs because we want something now. We’re brought up to believe ‘take bull by the horns’
and take action.” “It plays a huge role. It’s the difference between successful people and
unsuccessful people in that the successful admit their shortcomings (at least in private) but the
unsuccessful won’t and don’t, they avoid conflict and don’t take on problem ‘head on,’ and they
pretend it’s not there and hope it’ll go away.” “We all like to think we’re on top of things,
aware, not fooled, yet we all get fooled and all guilty of these things.” “I’m less now because
left a law firm, but legal profession is full of denial to allow one to function (and applies to friend
who’s a surgeon). I think there’s lots of dissatisfaction because everybody wants the other thing,
what other guy has is better, the Joneses, until they are the other guy.” “At this point I’m better
at putting things or worries out of my mind.” “We all live is some form of it. At the macro
level, it’s the consequence of depression, psychology, and loss of control of one’s life. At the
micro, I’m most in denial about amount of time in day to get things done, and when I don’t,
beating myself up for it – spending life by doing so much to avoid multiple distasteful things.”
“Yes, big role. I suspect I’m like everybody else on this; it’s human nature to avoid thinking,
particularly a decision that feels like descending into a deep dark pit and never returning, yet it
remains at the back of my mind. We also think of a safety net…or something to come along to
save or rescue us. I meet with others to get a sense of reality and to take away other fantasies
that I’m special or have an expertise, which then vanishes and I realize a lot more concerns than I’d thought. We play ourselves, and it’s really hard to pin ourselves down, due to factors of fear, insecurity, and a hope of getting rescued."

One suggested an applicable percentage of how pervasive denial and dissonance are in our society; “80 to 90+ %, close to 100% of all of us do it. Few have the ability to consistently accept it in our face without judgment or spin.” “I avoid putting myself in fire, tell myself there’s no point in trying because I’m not good at certain social things, so it’s an excuse not to try, particularly things that make me miserable. There are some women who treat other humans with no social grace, so they must be in denial about something; they only want to associate with the wealthy and upper classes.” “People do not want to accept the truth; they know the truth but don’t accept it.” “I back-down or straddle the fence to keep people happy and then it never works. I rationalize and straddle in the gray versus dealing with the black-and-white.” “It involves confronting pain or our own failures, limitations, and requires our ego to take a blow.” “Maybe I’m in denial that I’m not in denial. Many are disenchanted with the practice of law, sucked into a law firm, some say they like it. I know a 2-lawyer couple who spend a lot and probably can afford it but they work in-house not at a law firm.” “People have a tendency to avoid change; law practice requires more time than they want; they/we would like more control and flexibility. There’s big denial in age range of 20 to 40, and also denial as one gets older and life they’re leading isn’t real, it’s meaningless, then think what a waste of time and money and energy.” “It is the fear of the unknown, lack of self-confidence, and that we can’t keep kicking the can down the road, but just kicking concrete.”

g. Ennui & Malaise
This final category also involves into topics and issues that have pervaded the prior interview questions. The interview subjects were asked various questions pertaining to their encounters with feelings of malaise or “quiet desperation” (using the Thoreauvian quotation – “The mass of men lead lives of quiet desperation” and a chart of other literary quotations, to be illustrated in the next section), to views about a transcendent or spiritual quality to life, to a United States Supreme Court Justice’s recent comment that more lawyers should put their intellects to better use toward other productive things, to another Steve Jobs’s line in his Stanford speech about finding work they love and not settling, to what questions they might ask their fellow professional colleagues, and to spending their lives on what matters most.

All respondents agreed that malaise and “quiet desperation” are experienced by them, and by and others, though experienced differently by different people at different times in different ways. One noted the connection between accomplishment, success, and affirmation, to their identity. “People always try to impress each other and curry favor from the powerful. Modern changes won’t change this. Money makes life easier, better, relaxing, feel good. We don’t change our nature; seek to keep ourselves entertained; do things to fill time. Thoreau’s attitude in being unconcerned with or impressed by material things, is a better way to live, but very hard to do.” “Absolutely, everyone has dealt with this at some point. A lot goes back to fairy tales of childhood, thinking we can achieve utopia or rose gardens, but finding that in fact we can’t, that people try to take away and take advantage, and that people want you to join them, to bring you down to their level. Unlike Thoreau, my interests require more money, so it depends on one’s interests and monetary needs.” “Yes, at different points, most experience malaise, most mid-life crisis is about this. It’s like the book Your Money or your Life, which suggests we make a dying, not a living. We work ourselves to death, and then ask, ‘For what?’ To give up life, to be a
slave. If we want meaning and control, then must simplify.” “I have plenty of ennui, others also lack satisfaction, at least in professional lives, but ‘ignorance is bliss.’ Thoreau like Marx held that the proletariat was miserable; Marx sought utopia; Thoreau was realistic.” “Most feel malaise in their lives, and some more than others. Narcissism also feeds into “quiet desperation” because if seeking to fulfill yourself, nothing material or career or person can fulfill in making you feel whole: > narcissism, > search, < finding it.” “Yes, quiet desperation, if honest and introspective. Much happiness of existence is derivative, derived from enjoying others, but it’s not when solely by self, with no other source than our own emotions.” With regard to the chart C, interconnecting several literary quotations (as illustrated in the next section), most agreed that such flowchart was useful, but a few offered some divergent views. One noted that the chart “makes sense,” but it may be a “bit simplistic…across people,” for example, lawyers who are paid and spend more money. Another noted that the chart’s applicability “depends on the person,” noting disproportionate wealth and two separate views. This subject provided the example of a young single mother, whom the subject has known since college. This mother has no education, two-three jobs, “couldn’t live more simplistically…and can’t save because she has no money, only money for essentials. And no one she knows can help her because they are all in the same situation. Chart C speaks to a more educated group. Society emphasizes as if it’s a moral imperative to work long hours, and we are so mired in society and culture. I struggle with this formula [on the chart], which looks great on paper, but how do we make happen in real life, and to escape from that prison.” Another noted that our society is in denial that “Thoreau ever lived,” citing an example of a wife of an executive, with two kids, no job outside of the home, and four nannies. Focusing on the “big picture” of the “good life,” they cited the following: “leisure time with family and friends”; “less office politics and having to play the game of
manipulation to elevate oneself”; “that ‘one thing’ in the movie ‘City Slickers’ and it’s different for different people”; “it’s measured by the joy to others’ lives”; “living in the moment, and not too caught up in worries and stress and looking too far ahead all of the time”; “people generally think about never worrying about expenses, having stars in their eyes, fantasizing about the celebrity lifestyle, usually materialistic things,” providing some examples from church, but “I tell myself that I don’t really know what that person is experiencing, that I should sit back in gratitude, and that I wouldn’t trade for it [for their lifestyle].”

Most respondents expressed a belief in some transcendent or spiritual aspect to life, though with several caveats. One subject noted that if one is desperately poor then they’d likely always be unhappy, but that “it’s easier to find transcendent and meaningful qualities if have better and less desperate life. If they pray does it do any good? Don’t know, have to ask them, but praying for food doesn’t mean child will get food. People today make themselves equal to God – they completely know what’s in God’s mind, and make themselves God.” “If only here to pass along genetic material, then everything is irrelevant.” “There better be [transcendence or God] or I’ve put myself through a lot of misery for nothing. Whether we believe in a God or not, the country is founded on a mantra that ‘we all pitch in.’ At my church, people say, ‘Not equal giving, but equal sacrificing’.” “If people are spiritual, they should be less in need of material fulfillment, less materialistic or about making and spending money. There are walking dead among us if they lack a transcendent or spiritual quality to life,” citing a Ray Lamontagne song “Empty.” “I guess, hard to say, feel I should say ‘yes’ and it’d be sad if ‘no.’ Should get something out of it, should add to happiness. Hard to know how people make those decisions, especially when religious people seem to have less integrity, so there’s a sense of hypocrisy. Spirituality is personal so if they do publicly, there’s an agenda, and it’s not what you think it is.”
“We’re all connected, interdependent somewhat, and there’s a balance with that. I’m responsible for taking my children’s lives and developing them to be the best person they can be. We are responsible to ourselves and to others.” “There’s a common theme, such as Augustine’s ‘restless till I found my rest in God.’ Or the movie ‘Jerry Maguire’ in the line, ‘You complete me.’ The source is through other people, and there’s no point in looking for more direct signs or evidence. And for me it’s a source of great comfort. There’s not enough satisfaction from the best job or case [in court], because then a few days later I’d ask, ‘What’s next?’”

In response to the Supreme Court Justice, about lawyers instead choosing another productive pursuit, most agreed with the general proposition, many may be summarized by one respondent’s response: “Many if not most lawyers would better society if not practicing law; they are not happy, do it only for income, we gotta do something, to make and spend money.” “People waste time and energy hating on people or things and should use time and energy on good things.” “Society does not reward for the loftier or nobler jobs, but rather lobbyists and other positions are admired and respected, and ultimately ask, ‘do these other pursuits pay as much?’” “You can’t generalize, lawyers just end up doing it and getting stuck in it,” but cited a friend who wanted to teach 5th Grade children and instead worked at a large national law firm. The friend was then “stuck and disenchanted,” but didn’t change because they did not know what to do, and many know but rather won’t change because of “financial aspect.” Another asserted, “The educational system doesn’t prepare a person well for what it means by productive life. It’s easy to pick law school and then have the impression it opens doors and offers a certain kind of life. But then get there and see ‘Not really,’ and law schools misrepresent this to keep the illusion alive.” And finally, a subject offered “mixed feelings” and reasons about this question. “Most lawyers are fortunate to practice law and grind it out but not many are brilliant people.
The Court Justice sees a small percentage of lawyers, many of whom could put their intellect for more productive things. But by the time most lawyers graduate and work a few years, their opinion of themselves is that this is all I could do. A tiny percentage of attorneys exercise other options, and they develop a mindset or co-dependency on law and an emotional crutch that they can do this career and have a better chance making this work than changing to do other things.”

In response to Steve Jobs’s Stanford commencement speech, a few respondents agreed with Jobs, but virtually all had qualifications and caveats to Jobs’s point about only doing work that you love. Two of the more repeated objections were that doing what one may love is not realistic because it would not afford the essentials to live, citing music tours, singing, or being a pro athlete. Second, is that Jobs was in a unique position, either being lucky or uniquely gifted, but that most in life must make compromises. Another cited the caveat while it is “a lesson needed in Jr. high for choosing one’s occupation, you can’t just do what you want because emotions change over time.” “[Jobs’s statement] is not true for most of population because no one would every pay them to do what they love.” “Utopian, most people’s situation won’t let them do that, and they made choices that put them in that situation, such as getting used to a certain standard of living. Nevertheless, one should not be working in something that one hates regardless of pay because that will do more harm than good.” “Life entails compromise. It’s great advice but not always realistic. Depends on what’s important to you, on compromise.”

Another said, “Jobs was the ultimate narcissist. I don’t necessarily agree with his premise to find what you love, but you should come to terms with what you do for a living, find something to feel good about yourself, and contribute to society by doing it, rather than filing wasteful lawsuits or wasting your life.” “I agree, but waited a little too late, and not as good as could’ve
been because it was never a passion for me.” “This made me depressed because I never did what I really love because I don’t know what it is.”

The respondents offered a variety of their own questions, if given the opportunity to make such inquiries of their professional colleagues. “I don’t care what they think; most are not sincere; I worked at law firms and know what they’re like; few good or extraordinary stand out.” “Are you happy, is your life in balance?” “Are you concerned about the direction of the country and about the future for your kids, and what is the best way to promote their good attitudes?” “Are you authentic—really who you are, living your life or living image, pretending or being you? Are you well-rounded? Do you help others?” “Are you happy with your chosen profession? If yes, you’re a liar!” “Are you satisfied as an attorney, what would you do instead, and why did you go into the law?” “How are you compensated and what is it? What is the most meaningful contribution you made as an attorney?” “What do you like most and least about being a lawyer? What is one thing you’d do differently now? Given the choice, would you still have gone to law school, or have chosen a different area of the law to practice?”

And to the final question on the interview questionnaire, relating to what matters most to them in how they choose to spend their lives, most responded with value placed upon time with faith and family, spending time with children, wishing for more friends with shared life views, teach and pass down values, “my happiness and not screwing other people, want to live a good life and not do any harm,” “what matters is friends and nurturing and growing them.” A few offered some caveats to this: “I’d like a community, but don’t know many people who want to talk about the more important and intellectual things, and people even physically back away if I bring up those issues.” “People do not go to the trouble, it’s the lost art of self-sufficiency.” “A
lot live in status quo and are disenchanted, and so I agree that that is counter to Thoreau.” “It reveals what’s important – that is, how we spend life.”

2 Robert Coles’s Interviews

Robert Coles is a well-known psychiatrist, Harvard professor, and award-winning writer, having won *inter alia*, the Pulitzer Prize for books based on his interviews of numerous persons. In *The Call of Stories*, Coles (1989) describes the role of literature in teach and counseling students and professionals graduating from his courses (Bevington, 1989, February 26). The professionals interviewed by Coles expressed aspects of their experiences and feelings about them that are consistent and remarkably similar to the ones conducted in the instant study:

Of particular note, and relating to this research, Coles interviewed a "successful tax attorney," whose father was a patent attorney. The father "would make a hunk of money on a case; and then he'd get depressed. He'd sit and stare out the window. He wouldn't eat much. He'd sneak drink," which the son later found hidden in different locations around the house. The attorney son continued, "We were reading Catcher in the Rye in school around that time, and I remember thinking: my dad--he's one person who isn't a phony. That was his problem--that he couldn't pretend like other lawyers, that he saw what was going on, the greed and the schemes. Boy, was that his word: 'Schemes and more schemes,' he'd say."

The story of these generational attorneys is not unfamiliar:

My mother never stood by him when he talked like that. She shrugged her shoulders, 'That's life,' she'd say. She wanted him to make more and more and more money. They'd fight, terrible fights. 'You want me to be a schemer,' he'd shout at her. 'Youbet I do!' she'd shout back. She ran up these bills. What the hell could he do but go and get a case, and win it, and make a hunk of money, to pay off the bills. Then he'd get low, so low you'd think he was going to die. He'd stop eating. He'd stay in his room, and I'd hear him crying. (p. 131).

He was, I now realize, an episodic drinker.... He'd tell her he'd paid her 'god-damn bills,' and fixed everything in the house that needed fixing, and straightened out his will, or his taxes, or whatever needed straightening out, and so he was ready to 'relax.' (p. 132).

The attorney son continued discussing his attorney father:
He talked about the 'crooks' in the firm, and the 'deals' being 'pulled' all the time, and always the 'schemers' and their 'schemes.' He was an old-fashioned populist, and he hated stuffy, big-deal, uppity people. My mother was always trying to work her way into higher and higher social circles. She was a name-dropper. She was a very bright person. It drove her crazy that my sister wanted to be a nurse. A nurse! My sister is my Dad's girl. She wants to help people.... My mother has never given her a moment's peace. She likes me because I want to Harvard, and Harvard Law School. She doesn't listen to me talking about what I believe. So long as I make money in the six figures, and live where I do, she can talk about me nonstop with pride. When she comes out to see us, I keep visualizing those bottles I found hidden when I was a kid, a teenager; but I'll never drink the way Dad did--and I'll tell you, I'll never be as honest [as] he was! (pp. 132-133).

The attorney son continued describing himself:

I'm no crook. I'm just your average up-and-coming corporate lawyer, with an additional boost because I took the combined Law School and Business School course, open only to a few of us real ambitious characters! (pp. 132-133). My wife...majored in psychology.... She told me, '[Your Dad] wants to die.' And he did die. He got in his car, and he drove that car into the wall of a garage. They thought he must have been going sixty miles an hour. What a way to die. My mother--all she was worried about, when she got the news, was how the death would be written up.... (p. 133).

I'm already on an escalator, a fast-moving one. I'm going up! ... I know my work. They [work colleagues] know I'm good. I'll feel things tightening all around me. I watch people and they seem like plastic puppets, pulled in all directions by the market, by the firm, by their own greed: they want it all, and the sooner the better. For a stretch I'm in there with them. I plug along and come up with these bright ideas, and my sponsor [the senior member of his firm who is his mentor and friend] says, 'Great, great!' (p. 133).

This younger attorney then notes the need to awake, with reference to T.S. Eliot:

But then I'll wake up one morning and feel like a dead man. I feel as hollow as one of T.S. Eliot's 'hollow men.' I'm ready to fold; I'm ready to go running and never in a million years come back. And that's when I throw the dice; I mean, I tell them at the office that I'm not feeling well. I call in. (p. 133).

I used to hate to go to the library at Harvard. I'd see everyone grinding away, and I'd feel so damn competitive. I'd hate them; I'd hate myself for hating them; I'd hate my mother for bringing me up to be the person I am." (pp. 133-134). "I remember thinking: go and get...any really long novel, and just sit there...and read it, and let all your lousy friends, with spikes in their elbows, see you, and let them smile and think their 'chances' are better, and let their 'chances' be better--to hell with the whole damn scene! (p. 134).
He also reflects the peer pressure and “keeping up with Joneses”:

But I couldn't; I'd 'psych out.' I'd go back to cramming, and only when I was back in my room and in bed and waiting to fall asleep--only then did I think of my father. I'd remember his speeches, the way he talked about 'conniving schemers.' I'd remember him telling me to read Shakespeare, and to hell with all those economics courses I was taking. 'What's happening to you?' That's what he'd ask. He'd have had me become a Shakespeare scholar. He was one. (p. 134).

Well, you see the split in my life! But I don't drink; I just go on book binges. I pull out of the whole damn rat race, and I sit and read at home and at the library, wherever I feel better.... I'm going through reading lists [from] courses I should have taken, and wanted to take--oh boy, did I!--but I didn't take them. They wouldn't help me with my career. They weren't as 'important' as others were! (p. 134).

He also acknowledges other pressures:

My mother would brag about me with her friends, but never to my face. She was a driver, a slave driver.... [S]he was a great one for 'the reality principle.' She was always saying, 'Let's be practical.'

I'm ready to be fired. Let them send the word down.... (p. 134). But there's part of me that's not ready yet to surrender.... I'm discreet—'cautious, politic, meticulous.' I remember those words in one of Eliot's poems. I try to be honest.... And I could never leave when there's a real jam at work. I'm a safe rebel! (p. 135).

The attorney son concludes,

I'll say one thing, though: without those books I'd be locked up someplace, either a jail or a mental hospital. I'm too sensitive, too afraid, not to be troubled by some of the things I see around me on Wall Street and in the law offices that keep Wall Street going—but I try not to think about all the sleaze, and I do the best job I can. So far, I've not had any personal contact with the sleazy types. So far, I can call myself clean. But for how long? And what would I do if I were caught in a tempting situation? Would I rationalize my way into becoming a card-carrying member of one of the local sleaze groups here? It's questions like those that get the better of me. It's questions like those that get me into a panic—and that's when I end up reading in the library for a day or two." (p. 135).

When Coles taught his Dickens and the Law course at Harvard, the attorney son Harold,

sometimes discussed the character Wemmick in Great Expectations—the lawyer who was thoughtful and generous as a husband and a father but quite another kind of person
when at work in the lawyer Jaggers' office. This split behavior, this schizophrenia of sorts... struck him as odd—until, of course, he matriculated into the ultimate 'learning environment.' In a sense, Harold would never let Wemmick depart his mind.... Like others in that class and in other classes I have taught, Harold wondered how to straddle different worlds, and, too, how to make sense of his own behavior—the different responses his mind made to a private life and to the so-called professional life that takes place in offices. Harold was eager, also, to contrast Wemmick with another of Dickens' lawyers, Sydney Carton. His private life was a shambles--heavy drinking, loneliness, no family, a skeptical if not cynical nature. Nor was he a successful lawyer. He helped the aptly named lawyer Striver, but seemed as defeated professionally as personally. (p. 136).

The young attorney Harold wondered, "whether 'trouble' wasn't 'around the corner.'... 'I'm no saint.... But I am worried about becoming something worse than a sinner--a guy who has lost his integrity.'" (pp. 136-137). He describes a "Life lost":

'I feel myself slipping into bad habits—the way I treat people, and the way I'm starting to rationalize what we do in the office. I've not violated any laws, only a code of behavior which used to be a law for me: that I be polite and considerate of others, and that I not be used by people whose values I don't respect. I'm being used by anyone who can purchase my time--and to be honest, some of my clients are awful people.... I've become a real sharp lawyer! ...My colleagues, a lot of them, get plenty drunk: yes, plenty drunk, but discreetly drunk, most of them. They're not Carton, moping around and feeling scornful about a corrupt world. They are strivers, like Carton's employer, Striver, and they drink, we drink, because we're eagerly in a rat race, and every once in a while the tension gets too high, and you need to 'blow off steam.' ...I sit and hear the folks talking at the bars, and they're not feeling guilty; they're in the fast lane, and they're fueling up, just to stay there! I hear them say as much and I hear myself say as much!' (p. 137).

The son Harold is able to hear his attorney father's advice in the practice of law, and life: “[M]y father, with his frustrated idealism,…telling me you only live once, and you should do what you believe matters, what you believe in, and not tie yourself to money and a big-deal life.” (p. 138). One of Walker Percy characters is a “stockbroker who is trying to figure out what this life means, how to live it, the old existentialist inquiries…. [But they] are hungry, underneath their façades, for a life that connects to others, one that makes moral sense…. The theme [of Percy’s novels] that emerges is mild restlessness or apprehensiveness occasionally turning into gnawing discontent, agitated despair—and drinking, extramarital romancing, trouble ‘settling down’” (pp.
138-139). “Percy’s novels and John Cheever’s short stories are especially helpful for readers struggling with that sense of restlessness” (pp. 139-140). Despite all the trappings of comfort and success, “a certain emptiness and confusion and even sadness persist” (p. 140).

In addition to Harvard lawyers, Coles also taught and interviewed students and graduates of its business, medical, and journalism schools, using literature as a basis for their analysis of the panoply of life’s issues. To summarize his points from other interviews, Coles captured the following pertinent issues:

We put on a show—we think a show for others, but really a show for ourselves. We kid ourselves. We get rid of ourselves. We disappear into movies and musicals; into condominiums and mansions; into specialty shops—lost in our lust for clothes, food, newfangled applies” (p. 140). “But they’re in a rut, the biggest rut of them all, the kind of sad life they live, supposedly a life together, and supposedly a rich, successful life. It all makes me want to go study turtles in the Galapagos Islands, the way my college roommate did!” (p. 144). The interviewed subjects recognize in a character’s dilemma “a symbolic representation of our own continuing struggle with ambitiousness and greed” (p. 145). For one novel’s character, “a moral sensibility has been awakened” (p. 151). “He searches for decency and goodness, scans faces ‘for some encouraging signs of honesty in such a crooked world’—in vain. (p. 151).

Coles described another student’s reaction to the awakening effect of literature:

Another student’s reading of a novel invoked memories of what her father had told her: “He told me that day in the hospital that his life was ‘a big blur’; that he never liked his work but kept reminding himself that he’d done what he set out to do, make money and give his family a comfortable life…. He kept telling me that his heart was ‘sick’ long before his coronary. Then all of a sudden he started crying. When I read in the story that Johnny started crying, I thought of my father crying in the hospital. It was the only time I’ve ever seen him cry” (p. 156). In another Cheever’s story, the “parents are sadly uninterested in knowing [their daughter]—and indeed in knowing themselves. They have embraced the forms and routines of their rich, stuffy, pretentious life, leaving their daughter bewildered and scared, a constant onlooker” (p. 157). “She knows all too well the polished emptiness, the dreary desolation, of the dinner-party lives her parents lead. She knows who pays the costs—herself, of course, and legions of baby sitters, maids, and cooks, all doing the bidding of the people with the elegant names…. This is Cheever’s central theme (as it is Fitzgerald’s in The Great Gatsby): those who are busy climbing ladders… (p. 158).
A former student from Harvard Medical School, and now a surgeon, described his self-searching after graduation (p. 160):

There’s my dad’s voice: he was an idealist to the end, a bitter one, but an idealist. He thought we should sacrifice ourselves for others—and he sure did for us four kids. He worked all day and half the night. He was a druggist; but he was, really, a slave. He opened that store seven days a week. He never took a vacation. My mother worked there, too. They both were slaved—slaves to us kids, to our future…. [George Eliot would] show the changes in me—how I’ve stopped telling myself that there are lots more important things in life than making a mountain of money, or even becoming the world’s absolutely greatest surgeon…. I never see our little kid…. [H]e thinks I’m a nice stranger who isn’t around much…. No wonder I’ll buy a Megabucks ticket every once in a while! I’d like to become rich and then do some kind of surgical research…. There are days when…I come to the conclusion that lots of us doctors fool ourselves very easily…” (pp. 161-162). “I’d hate to end up a driven, driven ‘success,’ who is bored by what he does, but is always postponing any moral confrontation with himself!” (p. 162).

Other attorneys have stated similar sentiments. “All my life I thought I wanted to work for a big firm, have a cushy office and have my name on the letterhead. By the time I made it, I was miserable. It took someone I respected to tell me it was okay to take a pay cut and allow myself to be happy instead of rich” (Schneider & Belsky, 2004/2010, p. 162). “‘Business school seemed too fluffy, and med school would have required extra science. So I took an ‘easy’ route by choosing law when what I should have done is get a Masters in Journalism or English Lit.” (p. 48). Such lawyers may hold such sentiments because they find that what applies to physicists, applies to lawyers: “However, there is one thing that physicists [and lawyers] enjoy more than building a beautiful theory—and that’s smashing someone else’s beautiful theory” (Seife, 2006, p. 135).

In the fictional movie about lawyers working at a large New York law firm, Michael Clayton (nominated for seven Academy Awards), a senior litigation partner offers this opening monologue:

Two weeks ago I came out of the building ok, I’m running across 6th avenue there’s a car waiting, I’ve got exactly 38 minutes to get to the airport and I’m dictating. There’s this
panicked associate sprinting along beside me, scribbling in a notepad, and suddenly she starts screaming, and I realize we’re standing in the middle of the street, the light’s changed, there’s this wall of traffic, serious traffic speeding towards us, and I… I freeze, I can’t move, and I’m suddenly consumed with the overwhelming sensation that I’m covered in some sort of film. It’s in my hair, my face… it’s like a glaze… a coating, and… at first I thought, oh my god, I know what this is, this is some sort of amniotic - embryonic - fluid. I’m drenched in afterbirth, I’ve breached the chrysalis, I’ve been reborn. But then the traffic, the stampede, the cars, the trucks, the horns, the screaming and I’m thinking no-no-no, reset, this is not rebirth, this is some kind of giddy illusion of renewal that happens in the final moment before death.

This character continues his description of the dizzying effect of a question state, the need for clarity, and the seeking for an awakening:

And then I realize no-no-no, this is completely wrong because I look back at the building and I had the most stunning moment of clarity. I… I… I realized Michael, that I had emerged not from the doors of Kenner, Bach & Leeden, not through the portals of our vast and powerful law firm, but from the asshole of an organism who’s sole function is to excrete the… the… the poison, the ammo, the defoliant necessary for other, larger, more powerful organisms to destroy the miracle of humanity. And that I had been coated in this patina of shit for the best part of my life. The stench of it and the sting of it would in all likelihood take the rest of my life to undue. And you know what I did? I took a deep cleansing breath and I put that notion aside. I tabled it. I said to myself as clear as this may be, as potent a feeling as this is, as true a thing as I believe I witnessed today, it must wait. It must stand the test of time, and Michael, the time is now. (Michael Clayton, 2007).

A movie critic (and Yale Law graduate) for Slate describes it, “But beneath the expertly deployed suspense lies something more interesting: an indictment of the mercenary universe of white-shoe law firms and a devastating—and unusually accurate—look at the demoralized lives of the lawyers who work for them. Granted, George Clooney’s Clayton is an improbable 17th-year associate. But when he says, "I'm not a miracle worker; I'm a janitor," he could be speaking for the whole profession” (Keefe, 2008, February 19). Clayton's mad prophet is Arthur Edens…a Manhattan litigator in the midst of a manic breakdown [who] tabulates the time he has devoted to defending a chemical company, U/North, in a massive class-action case—‘Six years. Four hundred depositions. A hundred motions. Five changes of venue. Eighty-four thousand documents in
discovery’—and concludes that he has pissed away ‘12 percent of my life.’” The Slate critic continues:

*Clayton* takes place in the round-the-clock beehive of the modern corporate office [with] the team of unhappy-looking young associates dispatched to Milwaukee in the midst of a snowstorm to camp out in a conference room and do depositions. As Clayton, Clooney has the raccoon eyes and zombie mien of a lawyer sucked dry by the job. Look around next time you're riding the subway, or waiting for your order at Starbucks, and you'll spot the type. It's no secret that lawyers at even the biggest, most prestigious firms are miserable. For half a century the American law firm has flourished on a basic contradiction: The firms pay associates salaries but bill them out by the hour. In the ’70s, firms might expect 1,800 billable hours a year; today some New York associates bill 3,000. In *Michael Clayton*, as in real life, the firm doesn't employ people so much as consume them, creating a culture in which personal or familial obligations always take second place to work. Like a disproportionate number of lawyers, Clayton is divorced, and in one touching, sadly recognizable scene, he drives his 10-year-old son, Henry, to school, completely lost in his own thoughts as Henry tries to engage him in conversation….

The critic examines another character, the corporate in-house lawyer:

[Un/North’s General Counsel Crowder’s] fidelity to the job is absolute—she has nothing else, after all—and she offers a frightening specter of ‘zealous advocacy’ taken to its logical extreme. Crowder is so tightly wound that she raises an interesting question: Do the studies showing high rates of depression among lawyers tell us something about the profession or the people who go into it? Crowder is a neurotic and a perfectionist; in that respect, she's the kind of lawyer you want on your team. (She will worry so that you don't have to.) But if that's the self-selecting type who migrates to the law, it seems unfair to ask them to be happy as well. ‘I fear that happiness isn't in my line,’ Benjamin Cardozo observed in 1933, blaming ‘the disposition that was given to me at birth.’

This lawyer critic offers an assessment of the question state experienced by lawyers:

Whatever the explanation, *Michael Clayton* offers an only slightly exaggerated portrait of a profession undergoing a kind of slow-motion existential crisis. It does so at a time when in the real world, midlevel associates are dropping out in droves. At Sullivan and Cromwell, where annual associate attrition has reached 30 percent, management recently prevailed on partners to ‘be sensitive to not canceling associates’ vacations.’ Firms are attempting to accommodate the lifestyles of their employees in a variety of ways, from ‘kindness committees’ to weekly yoga sessions.

Above all, the firms are throwing money at associates to get them to stay. When my class finished law school in 2004, starting salaries for associates in New York were $125,000. Now they're $165,000. That's a great deal of money, but as an inducement, it may ring hollow to lawyers who spend their days at the beck and call of bankers and hedge-funders who make vastly more….
But the critic does suggest another perspective held by some lawyers:

As Marty Bach, the firm's unflappable founding partner, Sydney Pollack offers a much-needed counterpoint: a corporate lawyer who loves his life and his work. With his townhouse and his trophy wife, Bach is not lonely or alienated like Michael or Karen Crowder. Nor is he disillusioned about the work he does, if only because he had fewer illusions to begin with.... But as Clayton walks out into the bright sunlight on Sixth Avenue and hails a cab, he's enacting a fantasy nurtured by many a weary associate (and acted on by a number I know). He's extricating himself from the firm, overriding the risk-aversion instinct, and walking away—without a new job or a backup plan.

A recent Harvard graduate, since the lawyer Harold interviewed by Coles (1989) above, and Thoreau, expresses the same sentiments about the dissatisfaction and malaise within the current generation. Samuels (1999, October 17) reflected the “postmodern” ennui:

Our inability to imagine a future together was not ours alone. It was a symptom of a larger fracture or collapse, involving however many hundreds of thousands of people in their 20’s and early 30’s who seemed to lack any sense of necessary connection anything larger than their own narrowly personal aims and preoccupations.

* * *

I wondered at the miracle [of technology in linking us] in the most profound of dissatisfactions: ourselves. We were all graduates of good universities, bearers of elite credentials that would smooth our way in the world, leading lives detached from any real public or private passion.

* * *

What is so new and radical about the present epidemic of selfishness is how widely, and unthinkingly, it is shared.

* * *

But what if the freedom to rearrange reality more or less to our liking is the only freedom we have?

Echoing some of the neuroscience literature,

The problem is that the self isn’t real. The self is a necessary illusion that allows us to function in time, to create law, and morality, and art, and the rest of civilization. But it was never meant to save us from death, or imbue our lives with meaning and purpose. The self is the root of selfishness, and selfishness is what makes us unhappy. Too much concentration on ourselves makes us anxious, because the self cannot support the weight. That is the difference between the self and the soul.
These Harvard graduates—Thoreau, Coles, attorney Harold, and writer Samuels—and the aforementioned others expose a sense of dissatisfaction and “quiet desperation.” And still more recently, CNBC reporter Tausche (2014, February 19) addresses top graduates from elite schools, such as Harvard, working at the most prestigious banking firms on Wall Street. In reporting on the malaise, the CNBC video provides the following quotations:

- "About 80 percent of what I do could be done by a monkey."
- "If you enjoy investment banking, you're either lying, or a complete masochist."
- "We're literally expected to hand over the reigns (sic) to our life to the bank. And we do."

Such comments are reminiscent of NYU professor Nassim Taleb’s (2010) statement, “Those who do not think that employment is systemic slavery are either blind or employed” (p. 30).

Tausche (2014, February 19) concludes the CNBC article with the following statement: “‘These banks often recruit top talent, treat them like crap after investing quite a bit of money in training them,’ the analyst concluded, ‘and continue to do it year after year.’”

Shortly after Tausche (2014, February 19), and anticipating the Academy Awards, another Wall Street executive penned a critique on the award-nominated movie The Wolf of Wall Street. After his 17 years’ experience on Wall Street, Cohan (2014, February 23) states,

[M]y Wall Street was an endless-seeming succession of late nights, ruled by the demands of clients and bosses. An investment banking crisis, in my world, was when a surly senior banker would finally deign to look at a client presentation the night before it was due. The ensuing tirade would require me and my team to pull all-nighters to make the demanded changes. I lived in a constant fugue state, rushing from one meeting to the next, constantly hoping a chief executive would pursue the deal I was advocating. Getting hired for a new assignment, with its potential for a multimillion-dollar fee for the firm, was a rare moment of drug-free euphoria—to be followed by the long downer of sleepless nights as I toiled to make the deal happen. I used to say of investment banking that it was good one day a year: the day you got your bonus. The kicker: That bonus was nothing more than the present value of an inevitable pink slip. Being well paid but expendable was a fact of life. Hubris and excess? Yes…. Yet my abiding memory of is
the drudgery of it all—none of which has ever been captured on film or in print. With good reason: “Much of what happens on Wall Street is terrifically boring.” (p. 4P, emphasis added).

As Tom Hanks’s character testifies in the film Philadelphia (1993), “You don’t bring your personal life into a law firm; you’re not supposed to have a personal life, really” (emphasis added).

A. Review, Synthesis, and Emergent Constructs

\[ \textit{Preach, my dear sir, a crusade against ignorance; establish and improve the law for educating the common people.} \]

\[ \text{Thomas Jefferson} \]

\[ \textit{Ignorance is bliss.} \]

\[ \text{movie The Matrix (1999)} \]

1. Six Principal Themes

There is a thread of consistency running through the opening poets and novelists, the data compiled from witness interviews, and the contemporary statistics, recent media reports, and additional literary quotations. From these multifarious informational sources, the data reflect many of the deepest longings, latent desires, and persistent questions, pleading plaintively for guidance and relevant information.

The subjects’ responses, in particular, elicited through these in-depth interviews reflected a mixture, or admixture, of responses we might find prevalent in the culture, some nuanced and personally colored perspectives shaded by background and life experiences, and a convergence of predominant themes which are the focus of this inquiry and theoretical evaluation. While these summary responses have been described above at a granular level, and could obviously be more so, one senses certain issues, themes, feelings bubbling up from them. In mining for
responses with the tool of the interview questionnaire, as well as from all the sources and analysis to this point, six major categorical themes emerge:

a. “Don’t Know,” Dissatisfaction, & Fear
b. Egocentric Continuum
c. Socially Collaborative & Integrative
d. Holistic Input, Evaluation, & Assessment
e. Paradox, Limits & Constraints, Trade-offs & Compromises
f. Guides & Mentors

We can thus say substantial evidence supports the existing, continuing if not perpetual, and persistent “quiet desperation” and the related dissatisfaction and fear. Not only is the data replete with corroborating evidence, thus confirming that people in our group of concern feel “trapped” and “stuck,” but it further demonstrates that such information users simply “don’t know” what to do about it.

While the data collection was focused narrowly, the literature suggests the themes articulated here warrant deep examination because they are at the roots of a broad scope of human activity, existence, and concern. Indeed, questions echo all around us, within and among our brains. Beyond the aforementioned data, literature, and expansive information, recent reports portray the information gap reflected by these reiterated themes:

- In a recent Barna study, respondents express continuing dissatisfaction on multiple issues: 75% are "looking for ways to live a more meaningful life."; 56% “want to make a difference in the world”; 46% “are afraid of making the wrong career choice”; 25% “have clear goals for where they want to be in 5 years,” so 75% don’t; 19% “say they're extremely satisfied with their current work,” so 81% are not (Barna, 2014, February 11).

- The same Barna study also contains specific results among women: “59% [of all women] say they are dissatisfied with their work and home balance. Women also describe themselves as stressed out (72%), tired (58%) and overcommitted (48%). Each of these self-descriptions only increases among moms with children under 18 at home”; “Seven in
10 women say ‘I have too much stress in my life’”; “56% of moms feel overcommitted” (Barna, 2014, February 11). And attorney Rosa Brooks (2014, February 21), recently challenges Sandberg’s (2013) Lean In, evidencing support for these Barna statistics on women. More moms are jumping into the fray, as described in The Terrifyingly Nasty, Backstabbing, and Altogether Miserable World of the Suburban Mom, “I’ve found that the ennui new mothers feel when they quit their jobs and move out of the city can cause even the most confident of women to regress emotionally. Case in point: While many women were all too happy to share their stories with me, they were so afraid of mean-mom repercussions that they insisted I change their names and some of the details of their lives” (Suratt, 2014 April).

• Dr. Neil Clark Warren, the Founder, CEO, and Chairman of eHarmony.com recently states on the CNBC network: “65 percent of all the people who have a job in the United States today don’t like that job. They’d like to have some other kind of a job.” (Clark, 2014, February 6). Dr. Warren subsequently extends that 65 to 75 percent of people are not happy with their jobs (Warren, 2014, April 18).

• Theologians report that 60 to 90 percent of evangelical youth leave the church after high school (Denison, 2014, February 26).

• Augmenting the Vanderbilt article, On Being a Happy, Healthy, and Ethical Member of an Unhappy, Unhealthy, and Unethical Profession, about lawyer suicide and depression by federal judge Patrick Schiltz in this above Introduction, Yale law professors and spouses Amy Chua and Jed Rubenfeld argue that three traits in combination yield more successful people: an elevated sense of self, a feeling of inadequacy and inferiority, and a willingness to delay gratification (Chua, A., and Rubenfeld, J., 2014, February 2, p. 1P, and interviewed on CNN’s Zakaria’s GPS program, 2014, February 2, Grove, A.S., 1996). This corroborates the aforementioned themes of holistic evaluations, egocentric factors, and paradox and trade-offs. To the contrary, Cain in Quiet challenges aggressive social types, and argues for introverts and quiet contemplation in productive work (Cain, 2012).

• Amy Adams, the Academy Award nominated actress, was recently interviewed on the Actors Studio, on Bravo Network, and asked about her working with directors and maintaining her own thoughts and secrets: “I have to have my secrets because in life we never know the person we’re talking to. And we barely know ourselves a hundred percent. It’s a life-long journey of knowledge…. I really do believe that in life you never know the person you’re talking to” (Adams, 2014, February 20, emphasis added).

Indeed, Betrand Russell, arguably the most famous and brilliant atheist of the 20th Century, may have best encapsulated the themes implicated by the instant question state and analysis:

When will people learn the robustness of truth?... ‘I existed from my own centre, many things that I did were regrettable, I did not respect respectable people, and when I pretended to do so it was humbug. I lied and practiced hypocrisy, because
if I had not I should not have been allowed to do my work; but there is no need to continue the hypocrisy after my death. I hated hypocrisy and lies: I loved life and real people, and wished to get rid of the shams that prevent us from loving real people as they really are. I believed in laughter and spontaneity, and trusted to nature to bring out the genuine good in people, if once genuineness could come to be tolerated.’ (Clark, 1975, p. 5, emphases added)

Yet, another writer recognizes,

It is a very paradoxical thing—that to the degree that each one of us is willing to be himself, then he finds not only himself changing; but he finds that other people to whom he relates are also changing (Dykstra, 2014, February 10, quoting Rogers, 1961, p. 22).

The task is,

...to get the triumph of life over death into non-mythic language, into the triumph of life in you and me over the fear in you and me that is also fear between you and me (Dykstra, 2014, February 10, quoting Moore, 2008, p. 30).

Consistent with this leading atheist’s statement, another great mind of the 20th Century expresses the same points about sham and false masks, and the longing for real, genuine, and authentic passion in life, when Pope John Paul II asserts:

It is Jesus that you seek when you dream of happiness; He is waiting for you when nothing else you find satisfies you; He is the beauty to which you are so attracted; it is He who provoked you with that thirst for fullness that will not let you settle for compromise; it is He who urges you to shed the masks of a false life; it is He who reads in your heart your most genuine choices, the choices that others try to stifle. It is Jesus who stirs in you the desire to do something great with your lives, the will to follow an ideal, the refusal to allow yourselves to be ground down by mediocrity, the courage to commit yourselves humbly and patiently to improving yourselves and society, making the world more human and more fraternal (Denison, 2014, April 25, quoting John Paul II, 2000, August 19).

Three films coalesce on this perspective of the real and authentic life versus the above-referenced pretense and hypocrisy in the world, as well as some of the consequences of false life.

In *Instinct* (1999), the anthropologist-patient Dr. Powell (Anthony Hopkins) engages in a coercive teachable moment upon his younger psychiatrist Dr. Caulder (Cuba Gooding, Jr.):

“"Who's in control?... What have you lost ? ... What have you lost? What did I take? Did you
think you were free? ... [I]n the middle of the night when you wake up sweating, with your heart pounding. What is it that has you all tied up...in little knots? Is it ambition? Yeah. You're no mystery to me, boy. I used to be you.... What have you lost? What did I take from you? (written: 'MY ILLUSIONS') ...You're a student, after all. And you've lost nothing but your illusions... and a little bit of skin" (emphasis added). At the end, with their relationship cemented, and just prior to Dr. Powell escaping the asylum, Dr. Caulder closes with a monologue: “You asked me a question once, ‘What has you all tied up in knots when you wake up sweating in the middle of the night?’ You still wanna know? I've been thinking about it, been thinking about it a lot. It's not the work, I love the work. I've always loved the work. It's the game. The game, Ethan. And I was so good at it. I made sure all the right people liked me. At night, I'd go through the checklist in my mind: Am I cool with Ben Hillard? Am I cool with Dr. Josephson? Am I cool with all the people who can help me? Am I cool with all the people who can hurt me? Nobody thought I was weak or a loser. There was nobody I was offending, nobody I loved. That game, Ethan. But guess what? You taught me how to live outside of the game. You taught me how to live. And you know what scares me even more? That I'm going back in. ‘Forgive me, Ben. Put me back in the game. I'll make you like me again. I'll do the work, I'll do all the work, just put me back in the game’” (emphasis added).

Arguing the same point, in The Matrix (1999), "That system is our enemy. But when you're inside, you look around, what do you see? Businessmen, teachers, lawyers, carpenters. The very minds of the people we are trying to save. But until we do, these people are still a part of that system and that makes them our enemy. You have to understand, most of these people are not ready to be unplugged. And many of them are so inured, so hopelessly dependent on the system, that they will fight to protect it."
Third, Tom Cruise portrayed a former military cop in *Jack Reacher* (2012), who observes the daily lives of ordinary Americans: “Imagine you spent your whole life in other parts of the world, being told every day that you're defending freedom. Then you finally decide you've had enough. Time to see what you've given up your whole life for, everything. Get some of that ‘freedom’ for yourself. Look at the people. You tell me which ones are free. Free from debt. Anxiety. Stress. Fear. Failure. Indignity. Betrayal. How many wish that they were born knowing what they know now? Ask yourself how many would do things the same way over again, and how many would live their lives like me?”

This perspective concerning these contrasting worlds may present another example of a kind of avoidance or cognitive dissonance, akin to data collected in recent polls wherein Americans claim they prefer saving to spending their money, despite their behavior to the contrary, with the savings rate declining each decade: “In 2013 the average personal savings rate was 4.5 percent, the lowest since 2007, according to the U.S. Department of Commerce. The U.S. personal average savings rate was 11.8 percent in the 1970s, 9.3 percent in the 1980s and 6.7 percent in the 1990s.” (Cole, 2014, April 22, cf. Is 55:2, Jn 6:27, Jn 15:19, Jn 17:14, Jn 18:36, Rom 12:2).

2 Illuminating the Question State:

a. “Quiet Desperation” & “I Don’t Know” States

It may be most helpful to a user to be made aware that others share a particular question state, and how they articulated it, which may aid him or her in understanding a potential connection to it and through which fill in certain smaller gaps to gain clarification. Because such abstract question states may be unarticulated yet felt, it is almost inherently incumbent in an analysis not to be limited to only one set or type of information because neither the user nor the
Information Doctor can know initially what may be the catalyst for greater awareness which may then instigate further questions and paths to track down, constituting the continual development of the question. Thus, this analysis utilizes multiple sources of information, including the statements of great literary and philosophic minds, human nature and psychology, neuroscience, philosophy, theology, the arts, behavior analysis, behavioral economics, financial and economic information, and tools constructed from them. These disciplines, seemingly unconnected in concern, fill information gaps among the interstices of the human mind. Employing a “holistic” and “heuristic” (O’Connor, Copeland, & Kearns, 2003, pp. 95, 102, 113) perspective among “epistemological priorities” (pp. 97, 140), there may occasion an improved likelihood that the problem and the solution can become better understood and accepted as the user becomes more informed. Put another way, all these informational sources may be necessary by which the doctor and/or user may build a case in support of a guided decision. As with an analogy to a legal case brought before a court for a jury to reach its verdict, an informational case must be built that is accessible, appealing, persuasive, and logically constructed so that the informational user is afforded a better chance at reaching his or her goal of problem resolution. This integrated outlook presents a model and framework as an example of how such an approach might work, as well as testing certain aspects of it on interviewed professionals to ascertain data of its relevance and effectiveness.


Yet while we are trapped within this amputated view of human nature, a richer and deeper view is coming back into view. It is being brought to us by researchers across an array of diverse fields: neuroscience, psychology, sociology, behavioral economics and so on…. The conscious mind hungers for money and success, but
the unconscious mind hungers for those moments of transcendence when the skull line falls away and we are lost in love for another, the challenge of a task or the love of God. Some people seem to experience this drive more powerfully than others. (p. 4P, emphasis added).

For purposes of this analysis, I use the question state of the abstract human dilemma of “quiet desperation” observed and creatively described by Thoreau in *Walden*. If one delves deeply into the causes and factors leading to “quiet desperation,” as Thoreau did, the analysis reveals the very aspects contributing to “Fuzzy” behaviors within the Nondeterministic Model and to Denial and Cognitive Dissonance. He thus sought to curtail the blinders arising from or caused by misinformation, misused or misunderstood information, or avoided information. Although written about human nature and conditions existing over 150 years ago, one might initially question whether Thoreau’s observation is relevant and timely as a model of pertinent factors today. However, informational sources since Thoreau, including these contemporary ones, amply demonstrate that such “desperation” continues to reflect current human sentiments and constructs (as well as notions of the Nondeterministic Model and of information denial and avoidance proffered in the information science literature, the in-depth interviews, and the theoretical models proposed here).

Indeed, Thoreau’s *Walden* serves as the primary literary template from which to derive an informational model that aids this analysis from identification and development of the question state itself, of the potential causal factors relating to it, of the plausible solutions to rectify it, and thus to a comprehensive theoretical framework as a valuable and resourceful tool for information users and/or by Information Doctors engaged to tutor, mentor, and guide them.

Timely

Thoreau’s prescient approach is timely and addresses myriad issues contemporary to the modern and postmodern mindset, which has been demonstrated throughout this analysis.
Fuzzy & Denial

I also tested this interdisciplinary approach on the interviewed subjects, specifically inquiring into their responses to Thoreau’s observation. From the outset, it is important to note that the data compiled from the in-depth interviews comprise the responses from individuals who are highly educated, serious and licensed professionals, all over the age of 40 years, and spanning an age range of 25 years. Thus, these interview subjects have more than adequate life and career experience to address the question. One lawyer in his 60’s said a remarkable thing. He said he had never systematically considered such questions as were included on the interview instrument. He was not alone. Indeed most of the interviewed subjects corroborated his statement, in addition to the aforementioned six themes, and this proposed interdisciplinary approach. Clearly, this subject’s specific statement confirms many aspects of the instant analysis.

Brains & Cognitive Processing

As addressed in the preceding chapter for the literature review, the workings of the brain shed light both on the reality of Thoreau’s observation of “quiet desperation” and on the usefulness of interdisciplinary information sources as an impetus out of a “Fuzzy” or “Denial” state.

When all these informational sources are taken together, Thoreau’s observation thus reflects a virtually universal question state about a deeply-held characteristic of the human condition, irrespective of one’s timeframe or temporal context. What makes Thoreau particularly appealing as an information source from the literary discipline for use in this analysis, viewed with an informational perspective, is that he too utilized multiple forms of information in an
interdisciplinary approach to more fully appreciate both the question state as well as building his own case toward what he determined was the most effective solution to it.

b. Clarifying the Analysis & Building the Case: Factors, Tools, & Models

Three words may best summarize Thoreau’s perspective of what may be needed to overcome the “fuzzy” behaviors, denial, and cognitive dissonance resulting in the particular question state of “quiet desperation”: “Awaken,” “Simplify,” and “Economy.”

Thoreau viewed his Walden-pond experience very deliberately as an experiment for the benefit of his fellow humans. He devised his experiment to occur precisely for a period of two years, two months, and two days, beginning symbolically on Independence Day, July 4th in 1845. Thoreau sought to present himself as the example in order to “awaken” his fellows from the slumber of their desperation and enslavement and thus to gain their independence into a happier and fulfilling life. To accomplish this, Thoreau strongly admonished that humans must “simplify” their lives, by reducing and eliminating the various encumbrances that “fettered” them to a life of miserable existence and slavery. One begins, therefore, as Thoreau did in his chapter one, by entitling it “Economy.” By this, he did not denote the economy consisting of the forces of supply and demand in the exchange of products and services, per se. He meant that humans should reduce expenses and eliminate accumulated possessions, live frugally with only the bare essentials which he called “necessaries,” and thus gain control over and flexibility of the amount of time one had to work to procure what one actually needed to live and thereby free up much more time in one’s days, weeks, years, and lifetime in which to enjoy the most relevant and valuable amenities afforded by life. Thoreau’s view of the problem of “quiet desperation” and his solution to it may be graphically presented as follows:
The Problem

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<thead>
<tr>
<th>Accumulation &amp; Expense</th>
<th>Simplicity &amp; Expense</th>
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<tbody>
<tr>
<td>Disproportionality</td>
<td>Proportionality</td>
</tr>
<tr>
<td>Increased Labor</td>
<td>Reduced Labor</td>
</tr>
<tr>
<td>Lost Freedom, Interests, &amp; Opportunities</td>
<td>Gained Freedom, Interests, &amp; Opportunities</td>
</tr>
<tr>
<td>“Quiet Desperation”</td>
<td>“Awake” to “True Course” &amp; Authentic Life (Contemplation &amp; Learning)</td>
</tr>
</tbody>
</table>

More specifically, a three-pronged approach may be derived from Thoreau based on the following factors which I enumerate as simplify, social, and substance.

Problem

<table>
<thead>
<tr>
<th>Asleep/Blind</th>
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<tbody>
<tr>
<td>Messy &amp; Complicated/Simply</td>
</tr>
<tr>
<td>Social &amp; Relational</td>
</tr>
<tr>
<td>Superficial &amp; Material/Substance &amp; Transcendent</td>
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</table>

Solution

<table>
<thead>
<tr>
<th>Awaken/Sight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messy &amp; Complicated/Simply</td>
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<tr>
<td>Social &amp; Relational</td>
</tr>
<tr>
<td>Superficial &amp; Material/Substance &amp; Transcendent</td>
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</table>

Simplify

Thoreau calculated the amount of money required to buy what he needed to live, of time required to work to pay for those needs, and of the amount of time in his life it would require to accomplish this and the time he would have left over to do with as he wished. That is, he budgeted his time and expenses.
But he viewed this process in a unique way, foreign to his peers or to us today: he saw his life as the currency being used up, consumed, or spent to pay for the “stuff” he bought in his life. Hence, the more stuff he bought, the more of his life would be required at a job and work to pay for it. But Thoreau was not the first to suggest this. Adam Smith, the father of capitalism, in his classic book, *The Wealth of Nations*, published ironically in the actual year of America’s Declaration of Independence, 1776, expressed the same notion examined, *supra*, of exchanging the time as our life’s currency, spent for stuff.

The literature is replete with examples which also mirror the paradox in consumption (Daly & Cobb, 1989/1994; Plotkin, 2008), of too many choices depleting our freedom (Iyengar, 2010; Schwartz, 2004), and even of the potential degradation of the brain by technology (Carr, 2010).

Social

Thoreau also carefully examined several social and relational effects as a factor upon an individual’s ability to achieve independence and the state of being “awakened,” noting the “blinders” which prevent sight and clarity toward matters of substance.

Happiness and even productivity have been shown to depend on the health of social interactions (Haidt, 2006; Pollan et al., 2005; Michel, 2009; Murray, 2012).

Substance

By using the term “substance” for this third factor, I connote the emphasis of substance over form, of transcendent ideas over materialistic obsession. Thoreau rejected the squandered waste of one’s life on superficial things of form and materialistic pursuits.

In his famous lines, Thoreau instead issued a clarion call for those higher and elevated things worthy of human pursuit, quoted *supra*, to follow one’s own dreams and drummer, and to build
castles in the air. This psychological urgency has been reflected in research (See, e.g., Haidt, 2006, 2012; Pollan et al., 2005; Daly & Cobb, 1989/1994), as well as in biblical texts (Col 3:1-2, Phlp 4:8, 1 Cor 13, Gal 5:22, Rom 8:35-39).

c. Identifying & Guiding toward Solutions: “Aha” & “Ah” & “Oh My” Moments

The utilization of graphics, figures, and charts may also serve as useful visual aids, particularly in the hands of a skilled Information Doctor to awaken information users, possibly both to the question state itself, its ongoing shaping and molding, as well as potentially applicable and tailored solution alternatives. Coles (1989) himself may be another exemplar serving as such a guide or “information doctor,” who uses literature information sources as his tools to nudge or awaken his information users. Indeed, as some of his subjects indicated, the novels, or particular characters within them, may themselves serve as the guide and mentor, enlivening a shared or mutual basis of sense and feeling.

In addition to the previously identified charts and figures used in this analysis, the interviewed subjects also concurred that the following flowchart of interconnecting literary sources served as a beneficial guide in the thinking process:

```
“The mass of men lead lives of quiet desperation.”
H.D. Thoreau

“Where is the Life we have lost in living?
Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?”
T.S. Eliot

“The unexamined life is not worth living.”
Socrates (in Plato’s Dialogues)
```
“Footfalls echo in the memory,  
Down the passage which we did not take,  
Towards the door we never opened,  
into the rose garden.”

_T.S. Eliot_

“Two roads diverged in a wood,…  
I took the one less traveled by,  
And that has made all the difference.”

_Robert Frost_

“Awaken” & “Simplicity” & “Economy”

_Thoreau_

Your “True Course” (Thoreau) into Your “Rose Garden” (Eliot)

"'Beauty is truth, truth beauty,’ – that is all Ye know on earth, and all ye need to know.”

_John Keats_

Put another way, humans encounter periods of “quiet desperation.” We may feel “lost” or stuck, wondering Eliot’s questions about our lives and what we know or don’t know. Unable or unwilling to think when confused or overwhelmed, we may lead an “unexamined life” in which we prefer “not to rock the boat” or to believe “ignorance is bliss,” during certain points or in certain aspects of our lives. But if we instead do “examine” the questions, we realize “echoes in the memory,” not all of which may yield pleasant thoughts. Among the many missed opportunities, “passages,” and “doors,” we may also recognize there are passages to our true self,
into our personal “rose garden,” and out of our “quiet desperation. When we face a fork in the road – the next passages and doors – every decision makes “all the difference” (for better or worse) because it then subtly or bluntly affects all our thoughts and perspectives, and thus influences to whatever degree each future choice as well. If we choose the road to “awaken” toward the true self into our “rose garden,” we consider the Thoreauvian factors to live more simply, frugally, and focused on higher purposes worthy of our “true course.” Then, as Thoreau wrote, “one advances confidently in the direction of his dreams, and endeavors to live the life which he has imagined… [having] built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them.”

Thus, through the use of multi- and inter-disciplinary perspectives, we can trace the outlines of a holistic and integrative model, or case, as information is weaved into the tapestry of individual decisions, well-informed lives, and healthy and strengthened communities.

We have demonstrated that for the more difficult challenges of denial and nondeterministic behaviors, the synthesized overlapping of literary sources, financial tools, theology, philosophy, and neuroscience and psychology, an information science model is developed.
CHAPTER V
CONCLUSION

Man is equally incapable of seeing the nothingness from which he emerges and the infinity in which he is engulfed.

Eagleman, quoting Blaise Pascal

At the outset, this research sought to address Thoreau’s concerns about the life of “quiet desperation” and how that might be related to discontents of present day professionals. The extensive and interdisciplinary literature review and interviews with lawyers urged the study along a different vector—just how is one to model complex questions and how might one model guidance. This theoretical analysis of information seeking, avoiding, and nondeterministic behaviors on the broader, higher-level, abstract questions confronting information users, thus evolved into the biography of the question itself. Multiple sources of information have been used in this analysis, anticipating the evolution itself as part of the solution to the reality of not being able to anticipate a user’s information need that they cannot articulate to him or herself or to the information professional.

The surveys, studies, statistics, literature, and interview data amply demonstrate the contemporary continuation of “quiet desperation” in multiple life arenas, inter alia:

- 65 – 75 percent of Americans are not happy with their jobs
- 75 percent have inadequate savings
- 66 percent of American parents are "very or extremely concerned" about setting a good financial example for their children (Epperson, 2014, April 25)
- 66 percent of Americans are overweight or obese
- 50 percent of first marriages and 67 percent of second marriages end in divorce
- 70 percent of Americans do not have a college degree, even at current record levels of 30 percent rate with undergraduate degrees in some field
60 - 70 percent of Americans think the country is on the wrong track

“[T]he economy begins to recover yet our satisfaction hasn’t buoyed. Since 2005, Google Trends shows that search for “how to be happy” has increased by nearly 180%” (Brown, 2014, February 6).

“[J]ust 2% of workers and 4% of retirees say saving or planning for retirement is the most pressing financial issue facing most Americans” (Patrick, J., 2014, May 18); therefore, 98% and 96%, respectively, don’t think it’s the most pressing.

Although at first blush, the public may presume that such majorities in life categories result from poverty, inadequate funds, and/or poor education, but the instant study also adduces clear evidence that “quiet desperation” extends to highly educated and professional groups, such as attorneys. Thus, we face a substantial population in need of significant guidance provided by information doctors.

The bottom line of what is proposed here is the following: An information user may or may not sense a question or quandary within their neural recesses. Rather than the specifically and narrowly tailored questions which often require less time and fewer informational sources to resolve (e.g., in the upper-left quadrant of the MLO matrix), the bigger and often more abstract questions of life are less quantifiable and impacted by an almost inconceivable plethora of influences, factors, and unexpectedly relevant pieces of information. Information users may benefit from assistance in identifying, isolating, and developing the information need, as well as alternative plausible solutions toward a worthy outcome. Referring back to P. Wilson’s (1973) description of a personalized approach by a discerning tutor, his concept of the “Information Doctor” emerges (1977). Thus, a novel role for information professionals may be required to make a “case” that better clarifies not only the problem and possible solution(s), but also the issues in the information gap or anomalous state to help bridge that gap by persuasively connecting problem to means/causes/remedies to ends/objectives/goals. The role for an
information professional as a guide or tutor or trailblazer or information doctor is much needed because of both the hazy and mysterious ambiguities of decision-making on such lofty life question and goals—such as those near or off the edge of the MLO matrix grid—as well as the denial that puts willful blinders on information users from seeing the problem, solutions, and objectives themselves.

It is unmistakable that deep questions persist in individual hearts, yearning for guidance. Information users may be “lost,” frustrated, confused, stuck, or overwhelmed into a sense of “quiet desperation” and apathy, feeling that they are not where they had hoped they would be in their lives and “echoing” the missed opportunities for a different and better life. They may have fallen into a rut of “ignorance is bliss” and status quo, afraid of known and unknown risks, no longer critically thinking or “examining” where they are, how they got here, who they are, what matters, and where they want to be. Lost and confused, they are not sure where to go from here. They become the walking dead who seem asleep at the wheel of their own lives, enabling their own enslavement, perpetuating a vicious cycle of “quiet desperation,” and becoming the “ants marching” and “rats racing” on a meaningless treadmill. But the way back to living life entails the continual and persistent development of these questions, aided and abetted by the personal assistance and attention of those Information Doctors, who know and care about us, and thus are better positioned to help us shape and analyze the contours of our questions, the biography of which is not merely the developing question, but also of the person. “Since what we choose is what we are, and what we love we yet shall be” (Boyd, 2005, October 16, quoting William D. Hyde). Information users may be guided by Information Doctors to awaken and live again, jarred in their stumbling and groping with the tool, for example, of a Thoreauvian literary model
eliciting notions and motivations to simplify and economize, elevating value and substance, and thus finding their true self and destined life.

*I don't know exactly what a prayer is.*
*I do know how to pay attention, how to fall down into the grass, how to kneel down in the grass,*
*how to be idle and blessed, how to stroll through the fields,*
*which is what I have been doing all day.*
*Tell me, what else should I have done?*
*Doesn't everything die at last, and too soon?*
*Tell me, what is it you plan to do with your one wild and precious life?* (Oliver, 1992).

The information user journeys on the stumbling and groping quest for the developing biography of this penultimate question. “It’s the question that drives us” (movie *The Matrix*, 1999). The poet Oliver and her poem, as well as one who presents it to us, serve as Information Doctors to challenge and edify us, the effects of which catalyze, influence, shape, or mold the thoughts—whether forward or backward—in a brain seeking for something more. The biography of the question, therefore, merits consideration as equivalent to the biography of the questioner, the information user, the active, denying, and nondeterministic seeker, and therein lies its relevance. The question and its inquirer are one. To deny, avoid, or not be aware of the question, invokes the question states about which T.S. Eliot was concerned in "Life lost," and to which H.D. Thoreau pointed as the recondite confusion of "quiet desperation."
APPENDIX A

T. WILSON’S MODEL OF “INFORMATION BEHAVIOUR”
Note: From the article analyzing information avoidance and information seeking models by Case et al., 2005, p. 357.
APPENDIX B

MODIFICATION TO WILSON’S MODEL OF “INFORMATION BEHAVIOUR”
Note: Modifications to Wilson’s model of “information behaviour” in Appendix A, to reflect timing of and reasons for user avoidance.
APPENDIX C

LAYERS OF A SCHEMA (MLO MATRIX)
Note: from Figure 7.1. Matrix of information-seeking strategies (HG, 140)

<table>
<thead>
<tr>
<th>Articulated Query</th>
<th>Look Up</th>
<th>Deductive Logic</th>
<th>Inductive Logic</th>
<th>Conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA</td>
<td>DA</td>
<td>IA</td>
<td>CA</td>
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<td>DV</td>
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</tr>
<tr>
<td>LE</td>
<td>DE</td>
<td>IE</td>
<td>CE</td>
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</tr>
</tbody>
</table>
APPENDIX D

NONDETERMINISTIC MODEL OF ENGINEERING DESIGN ACTIVITY
Note: from Figure 7.2. Nondeterministic Model of Engineering Design Activity, Adapted from Copeland (HG, 141)
APPENDIX E

THIRD-LEVEL ELABORATION OF NONDETERMINISTIC ACTIVITY
Seeking process is likely to be iterative, with changes of course, rather like a sailor tacking down wind.
HABITS of EXPERTISE

- Characterized as an **irregular** waveform
- **Ideal** waveforms, such as a sine wave, are one line thick, but for a stream the width must be considered.
- As the meander loop is **not ideal**, additional information is needed to characterize it.
- Given a flat, smooth, tilted artificial surface, rainfall runs off it in sheets, but even in that case adhesion of water to the surface and cohesion of drops produce rivulets at **random**.
- Natural surfaces are rough and erodible to different degrees. The result of all the **physical factors** acting at **random** is channels that are not straight, which then progressively become sinuous.
- Even channels that appear to be straight have a sinuous thatweg (line of lowest elevation in a streambed) that leads eventually to a sinuous channel.
- Process of making **meanders** seems to be a **self-intensifying process**... in which greater curvature results in more erosion of the bank, which results in greater curvature...

METIS

- Deep understanding
- Grip of present and awareness of future by awareness of past
- Operates on shifting terrain and ambiguous situations
- Incessant change, twists in every direction
- Wisdom
- Foresight
- Sobriety of mind
- Resourcefulness
- Vigilance
- Opportunism
- Skills and experience acquired over years

INGENUITY

- No longer relies on rules, guidelines or maxims
- Intuitive grasp based on deep tacit understanding
- Analytic approaches used only in novel situations

- Explicitly pragmatic
- Contingent
- Visual in character
- Satisfying
- Messy
- Holistic
- Whimsical
- Embracing failure

HABITS of EXPERTISE
REFERENCES


Alfeyev, H., Archbishop Rev. Metropolitan (2011, February 13). *No one has ever seen God*. Lecture at Highland Park Presbyterian Church, Dallas, TX.


Denison, J. (2014, February 26). This event could change our nation. *Denison Forum on Truth and Culture*. Dallas, TX.


Dreher, R. (2008, October 26). Wendell Berry’s time is now. *Dallas Morning News*, 1P.


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VanBebber, V (2007, August 12). Are we really ‘better off than we think’? *Dallas Morning News*, p. 4D.


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