

ART AND SCIENCE OF DECEPTION

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UNIVERSITY OF NORTH CAROLINA at ASHEVILLE

THE ART AND SCIENCE OF POLITICAL DECEPTION:
THE POLITICAL ARTIST AND NEUROBIOLOGICAL MECHANISMS
UNDERLYING HUMAN VULNERABILITY

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by

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Abstract

Many politicians are highly successful in diverting citizens' attention from their legitimate interests, silencing the voice of constituents and undermining interests of voters who have elected them. They restrict voting to prevent non-existent fraud. They deny medical services to protect seldom-existent consumer-provider relationships. They allow tax increases on the working class while preserving loopholes for wealthy corporate sponsors. Yet the same politicians are reelected by popular demand.

This thesis uncovers a primary mechanism that underlies human susceptibility for such manipulation. The handles for deception are embedded in ancient reflexes that favored survival. Contemporary worldviews embody such ancient intuitions now integrated with modern vocabulary and narratives. These reflexes are grounded in neural networks that respond rapidly to present-day cues triggering ancient signals of threat, contamination and loss. Using such cues, polemicists often divert citizens' efforts away from personal concerns to buttress business and ideological objectives of their patrons.

In this thesis, neuronal circuitry dedicated to assessing the personal relevance of incoming information is described. Conditions for informing the worldview as opposed to censoring disagreeable information are elucidated. Examples in recent political discourse are provided. Constituent attempts to resist the process of diversion and information censure are explored. Constitutional and social impediments to reprogramming worldview are discussed. Evidence of weakening entanglements within some contemporary narratives from ancient intuitions is presented.

Introduction

Human behavior often defies rationality. This is especially apparent during the prelude to elections as many citizens rally enthusiastically behind candidates who espouse policies that are contrary to constituents' interests, needs, and opportunities. The electorate's behavior appears to disregard their own need for safe and supportive communities, for provisions of quality education, for affordable high-grade medical care, for well-paying jobs commensurate with skills and abilities, and even for taxes that disadvantage the majority. Instead, many already disadvantaged constituents ally with the wealthy and with corporate America, protesting "government interference" and "intrusion" into the operation of their private affairs. Many such protesters support legislation that ensures that they and their families will remain disadvantaged.

Politicians often attempt to elicit such self-destructive behavior from constituents. They charm voters by employing simple slogans that purportedly capture the essence of complex issues, but which in actuality buttress a narrative friendly to their own champions whose financial support biases elections. Their simple narratives and "sound bites," expunged of clashing details, satisfy the need for a superficial understanding of social and economic circumstances. Politicians thereby gain the confidence and support of constituents whose real needs are likely to be abandoned. Constituents will remain disadvantaged.

Politicians have learned to use tools that are highly effective in stirring and consolidating constituents' commitments. Such tools are specific *cues* and their derivatives that have occupied a special place in the species' quest for survival; they signal impending danger to the hearer; they activate brain circuitry that adapted over thousands of years of challenges to support survival. Using such cues, a skillful politician may be able to activate

one or more ancient reflexes that have been incorporated into the brain circuitry of the species. Such ancient cues often become linked to potential dangers emerging in contemporary life. The signaled dangers divert hearers from their legitimate concerns and sway opinion. Politicians skillfully using such techniques often emerge in the minds of constituents as informers of and protectors from dangerous social and economic threats as well as perilous strategies advocated by opposition leaders.

What is the nature of such powerful forces that candidates and their spokesmen evoke that so cloud one's perceptions that they obscure the realities of citizens' needs? What powerful forces rally the disadvantaged into partnerships in which their interests are subjugated to those of the already privileged? Unless we can grasp the nature of such forces, we are doomed to perpetuate a dance in which a large segment of the population will remain defrauded from the abundance within the American society.

To prevent such defrauding of a large swath of the American public, citizens need to understand the imprecise nature and operation of intuition^{1,2} and recognize the manner in which many politicians and their sponsors employ intuitions to achieve goals espoused by corporate interests and the wealthy. This thesis examines the origin of such ancient imperatives³ in the evolution of brain circuitry that favored survival in ancient societies.

¹ terminology defined in the footnotes are the author's attempts to bridge conventional psychological concepts with underlying neurobiological mechanisms; references to current understanding of neuronal circuitry are found in the footnotes.

² intuition – a rapid, “hot,” “System 1,” unconscious decision-making process in which cues related to past experiences automatically trigger a specific neurocircuit with characteristic outcome (Kahneman, 2011, pp. 19-21; Krain, Wilson, Arbuckle, Castellanos & Milham, 2006, pp. 477,481).

³ ancient imperatives – automatic, intuitive responses insuring survival of early hunter/gatherer societies in which circuits necessary for survival are developmentally advantageous; such circuits continue to be retained in modern man (Kenrick & Griskevicius, 2013, pp. xii, xiii, 32).

Activation of such circuitry favored success when encountering threats to both self and tribe. These circuits and associated intuitions remain active in modern man. The neurobiological and psychological mechanisms that underlie such human predispositions are described herein. The manner by which such biases are woven into perspectives⁴ that enable man to make sense of the external world and of himself is presented. We describe brain circuitry that combines ancient inherited programs⁵ and contemporary world experiences. The consequent assembly results in a relatively coherent perspective-network⁶. Brain circuitry that processes incoming information in the light of an already established perspective is described. A critical focus of this thesis is the interaction of the perspective-network with incoming challenges to the perspective's integrity. Examples of cues used by politicians to activate ancient intuitions still embedded and now elaborated within the perspective-network are presented. Such cues are often used deceptively for the purpose of directing constituents' attention away from their immediate needs or interests into modified survival-mode programs arising from the ancient intuitions. Threatening cues commonly used to rouse and divert attention by opinionated enthusiasts, newspapers, television and other media are identified. Citizens may be able to recognize such cues as warning signals for attempts to evoke intuitions and behaviors that are contrary to their real interests, needs and

⁴ perspective – preferences that evolved by restructuring of ancient circuits and learning from life experiences into a complex but coherent whole or “worldview” from which an individual or group makes sense out of the world and one's own existence within the world (Ernst & Paulus, 2005, p. 598).

⁵ program – a specific neurological mechanism activated by a familiar stimulus or cue that is responsible for detection, processing and response generation through fixed action patterns in a distributed network of brain regions (Krain et al., 2006, p. 477).

⁶ network – complex neuronal circuitry within the CNS used to store and integrate concepts and attitudes, used in creation of perspective for assessing challenges provided by incoming information (Sporns, 2011).

opportunities. Such dysfunctional responses can be reduced by a form of cognitive restructuring⁷. Detecting cues that evoke such ancient responses and disentangling them from present realities may provide the initial steps that allow higher cognitive processes⁸ to select more adaptive solutions. Careful and unbiased weighing of relevant facts and issues can bring both perspectives and behaviors in line with citizens' true needs and desires. Persistent vigilance and practice may free citizens from ignoring information critical to maintaining a just society that addresses both an individual's and their community's collective needs.

The Issue: Deception and Human Vulnerability

Advantages of citizenship in a "Land of Plenty" are being restricted for millions of Americans. Elected officials often work to retain wealth within their favored communities and corporations, and within the hands of their financial backers. They appear to discount the aspirations of a large segment of the population that elected them to office: the disadvantaged American working class. Elected officials have fought against minimum wages that are themselves barely adequate to support an individual and his family. They have resisted attempts at unionization that might bite into industry's profits. They have restricted financial support for public education in primary, secondary and higher institutions while tuitions at private institutions make full educational resources available primarily to the wealthy. They undercut potential opportunities for lower and middle classes to share in high quality medical services. They discount the protest of workers who feel cheated or remain skeptical about

⁷ cognitive restructuring – a psychological reprogramming technique focusing upon revising dysfunctional intuitive responses to achieve better adaptation (Beck, 2011, pp. 137-255).

⁸ higher cognitive process – formal conscious consideration and evaluation of incoming facts and concepts using complex critical thinking skills for analysis and synthesis of information; here it is contrasted to intuitive processing (Kahneman, 2011, pp. 21-24).

benefits from “trickle-down” economics. They restrict voting opportunities to ensure the majority of votes cast in their district at election time remains in their column.

Many hard-working citizens appear to be highly susceptible to attempts by many politicians to distract them from awareness that a fair share of the benefits from their efforts is being snatched from their hands and sequestered in the coffers of corporations, their officers, their stockholders. A large share of the profits is used instead to fund PACs to ensure that such biased elected officials remain in office. Such politicians have perfected the use of specific sets of cues – words, phrases, narratives, and passionate exclamations – that bypass higher cognitive evaluation in their hearers and go straight to activate familiar patterns of dysfunctional acceptance. The intuitive patterns that once were highly functional are now used deceptively against citizens’ interest.

Ancient Reflexes Directing Human Behavior

Information-processing mechanisms evolved long ago to regulate social behaviors such as aggression, affiliation, reproduction, and parental care (O’Connell & Hofmann, 2012, pp. 1154-1157). These programs consist of a series of hard-wired neural circuits within the human nervous system. They are an adaptation produced by natural selection over time in ancestral environments. The neural circuits of early man were functionally specialized to produce behavior that solved particular adaptive problems. Such circuits have been fine-tuned according to advantages of providing circuitry increasingly reactive to additional contemporary environmental and social cues that might indicate a threat to person or kin and, overall, to reproduction and survival of the species.

Petersen (2012) noted that early man needed to be able to detect cues related to danger, to intergroup relations, alliances, and hierarchy, as well as cues related to tribal

sharing of collective efforts. They also became adept at detecting and isolating interlopers who receive, but refuse to contribute to tribal efforts. Early man had to develop or modify existing programs to detect and respond to cues of impending aggression from neighboring tribes, to evaluate the strength of potential adversaries, and to determine the potential of alliances. Programmed responses to such cues developed and operated in an instinctual manner in the service of survival (pp. 118-123).

Kenrick and Griskevici (2013) have described emotional and behavioral elaborations of four such fixed action patterns or programs that emerged and were refined in early man. (1) *Self-Protection* is fundamental to maintenance of the species. It is primed by cues of real or perceived danger. It has evolved not only to fight or flee predatory individuals, but to be triggered by angry facial expressions, by diverted eye contact of strangers, by group assembly of bordering tribes, and fear of undercover operations in the darkness. (2) *Disease Avoidance* protected against illness and premature death. It was essential for the survival of early man. Infectious diseases sometimes eliminated up to half of a population. Even in the absence of tribal conflict, the program for avoidance of disease spilled over to limited contact with, if not repugnance and dehumanization of individuals from other tribes potentially harboring infections. (3) *Affiliation* involved making friends and forming alliances that are necessary for survival. Sharing in early communities was a form of pooling resources to ensure that the tribe could be sustained in hard times. It also allowed a modest degree of specialization within the tribe that led to interdependence. Alliances also provided strength in numbers. Once such affiliations were established, programs for detecting and discouraging betrayal emerged to sustain strong alliances. (4) *Kin-Care* programs became adaptive in the interests of propagation of one's own genome and tribal survival. It reflected interest not only

in sustaining the lives of one's offspring, but proportionally preserving the lives of those who shared similar genetic pools (pp. 32-42).

Underlying each of such specialized programs, Cosmides and Tooby (1992) have suggested the operation of an array of dedicated, special purpose circuits, each circuit being specialized for resolving a specific challenge. Each circuit provides a multi-synaptic arc that is triggered by a cue, activating an emotional tone, such as fear or disgust, and an associated behavioral response. The response occurs rapidly and largely outside of consciousness (Back to Basics section, Principles subsection, pp. 1-5). Wiring of a circuit for a self-protective program that responds to threat has been fairly well characterized in lower mammals (LeDoux, 2012, pp. 653-662). In humans, mapping of similar circuitry has only begun by identifying several nodes along the circuit (Volz & vonCramon, 2006, p. 2077). Nodal activations and corresponding programmed behavioral response are reported to occur in a fraction of a second following the presentation of alerting cues (Amodio, Jost, Master & Yee, 2007, pp. 246, 247). Only later, and *if* the cue is not censored, does the challenge emerge into consciousness where higher cognitive mechanisms assess the intuitive response.

The Perspective-Network

Development of the Perspective-Network

Circuits underlying hunter-gatherers' response to threats, contamination, and affiliations would be of limited usefulness to an individual or group living in the 21st Century. The complexity of values, expectations and strategies operative in the modern world would quickly overwhelm the primitive intuitions of the ancient wanderers. Additional circuitry relevant to a wide variety of today's encounters has been assembled upon the ancient foundations. Such additional circuitry develops from repetitive adaptive learning

experiences. Conditioned learning results in a series of new fixed action patterns relevant to new cues in today's environment. These new fixed action circuits must eventually be melded together with ancient inherited circuits into a coherent program-package that now is triggered by a broad variety of cues confronting an individual in the modern world.

Such melding of primitive intuitions with contemporary experiences into fixed patterns of response has been suggested by multiple authors. Cognitive behaviorists have recognized "automatic thoughts" that grew out of dysfunctional patterns of early experiences and are reflected today in pre-conscious dysfunctional impulses. Their activation can frequently be detected not only by dysfunctional behavior, but by awareness of shifts in mood, and changes in physiology (heart rate, respiration, and galvanic skin response) following appearance of cues (Beck, 2011, p. 31). Such automatic thoughts described by the behaviorists are an amalgamation of assumptions, predispositions and experiences that routinely drive responses to cues of danger, contamination, affiliation loss, and kin-concern.

Jean Piaget, the Swiss developmental psychologist and philosopher, was also interested in the structures of mental life. He hypothesized that assumptions, predispositions, and experiences were commonly assembled into relatively consistent perspectives. He labeled such structures "schema." Schemas represent core beliefs that are global, rigid and over-generalized. He recognized that although new information continues to gain access to and enhances the schema, information clearly contrary to that of the established schema is often discarded. For Piaget, new information and challenges are also interpreted in the context of established schema or belief (as cited in Beck, 2011, p. 33). Both "automatic thoughts" of the behaviorists and "schema" of Piaget are virtually identical to the "perspective-network" as developed in the present thesis.

Integration of the Perspective-Network

A limited number of circuits for ancient imperatives are functional at birth. Pyszczynski, Greenberg, Solomon, Arndt & Schimel (2004) suggested that they develop and become integrated during the life cycle. Infants respond to cues of distress with cries and with sucking; later a smile reflex becomes activated. As a child, distress is buffered by parental affection and approval as caretakers' expectations are met. Conditioned learning and associated circuitry also develops from repetitive experiences with one's peers and teachers. Though fragments of programs dealing with threat and affiliation may begin to appear, most activated patterned responses are conditioned by others who enforce: "Cross the street only after looking both ways;" "Stop fighting with your sister;" "Wash your hands." With intimations of personal mortality emerging during adolescence, most young people begin to need more than the security of parental approval. The possibility and eventual recognition of mortality often results in an existential crisis with heightened anxiety as adolescents begin searching for a broader understanding of the world, its dynamics, values, meaning and their significance therein. The crisis is resolved with the development of an adult perspective within which an individual can make sense of one's existence and anchor his identity (pp. 437,438).

An Expanding Perspective-Network

Connides and Tooby (1997) suggested an amalgamation of programs from the ancient past with new programs generated by repeated experiences in today's world. The result is a relatively coherent pattern of attitudes and behavioral responses (Back to Basics section, Principles 1-5). Hilbert (2012) modeled a series of biases involved in decision-making using mathematical formalizations. His model suggested a process by which confusion associated with multiple ongoing circuits or channels can be reduced by

integrating such circuits into an inter-dependent network (pp. 232-234). Gaps within the network have been suggested to be filled by programs conditioned by differing environments and associated learning experiences (Kock 2012, p. 388). This largely coherent perspective-network⁹ is an amalgamation of the presuppositions and predispositions, some innate and some derived from experience. It is the perspective that individuals and groups maintain concerning the nature of things and the perspective by which they order their lives. The individual learning experiences that close gaps in the perspective-network lead to differences in perspective and in application of perspective when challenged by salient cues. This advanced network provides the touchstone: a relatively coherent perspective of the individual's or group's opinion on the nature of reality and their intuitive emotional and cognitive responses thereto (Figure 1). It permits its holders to interpret new information in the light of their integrated predisposition network (Lind 2011) that still remains biased by the ancient cues of danger.

Ancient threats begin to take on a new character following their amalgamation with new learning experiences. Jost, Nam, Amodio, & VanBavel (2014) reported a series of experiments in which such melded perspective-networks were experimentally challenged. A group of African-Americans were recognized for their accomplishments in the presence of racially prejudiced Caucasians. The Caucasians experienced strong physiological reactions in the absence of admitting to any distress. Subsequently, they failed to recognize any change in their understanding of Black accomplishments; they failed to change their attitudes toward

⁹ perspective-network – circuitry in brain not well established, but its operation appears to be associated with activations in the lateral temporal cortex, the amygdala and the basal ganglia (Lieberman, Schreiber, & Ochsner 2003, pp. 687, 688).

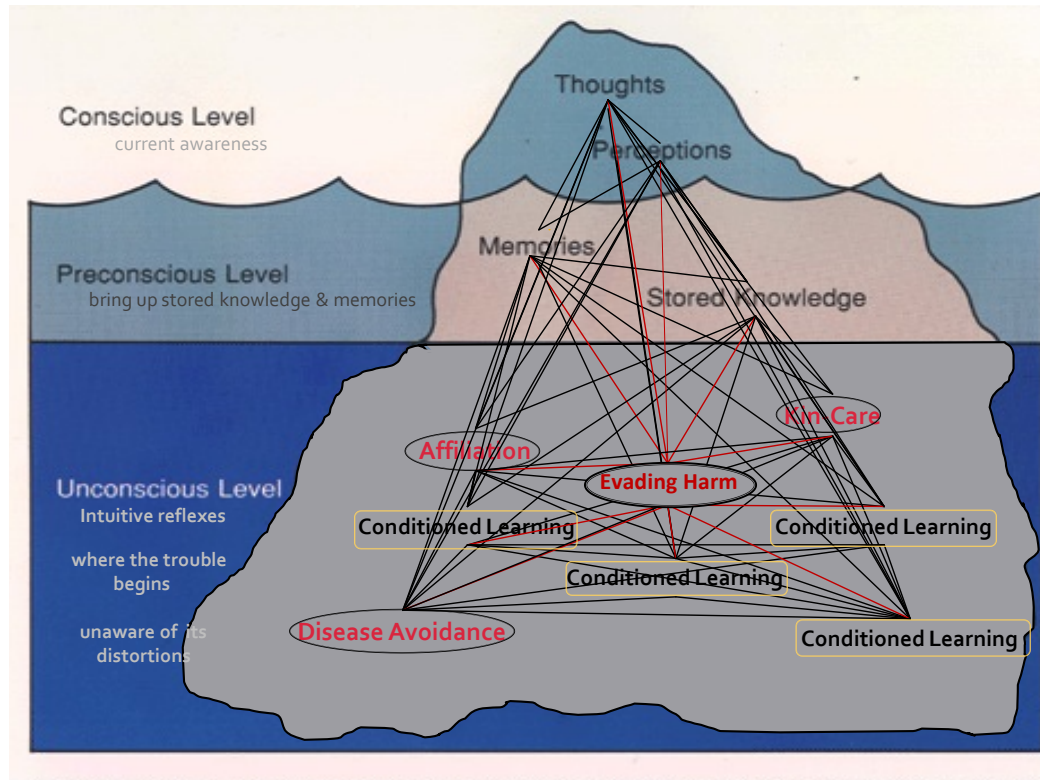


Figure 1. The perspective-network with interactive components at the conscious, preconscious and unconscious level. Modified from “Topography of Mind: Freud’s Iceberg Model for Unconscious, Pre-Conscious and Conscious.”

Blacks whom they continued to perceive as an out-group (p. 6). The study is consistent with the suggestion that contamination and disgust intuitions together with anti-affiliative conditioned learning resulted in dehumanizing African-Americans to trivial status (Park, 2012, p.192). The failure by the Caucasians to recognize accomplishments of members of another race suggests censorship of pertinent, available information. The power of a rigid perspective- network, still grounded in contamination, disgust, and out-group intuitions toward Blacks, blocked reception of Black accomplishments.

Generalization of Ancient Cues and Circuits.

As indicated above, the process of developing a coherent and comprehensive perspective-network requires a melding of ancient intuitions with additional fixed-action

patterns developed from contemporary world experiences. With expanded vocabularies, new words and phrases resonate with the more primitive cues resulting in ancient and often inappropriate responses to contemporary issues. The modern context, well beyond the imagination of primitive man, has provided thereby additional new cues of threat, new objects for avoidance, and new symbols of affiliation, alienation, and loss.

Self-Protective programs, now fully entwined within the perspective-network, have spread in two directions. The first direction involves threats to the physical integrity or resources of self and kin, many of which were inconceivable to ancient man. Simple and broadened cues are now repeatedly sounded by media that invades every home and office. They bring warnings not only of simple dangers, but of threats of annihilation from thermonuclear detonation, from nerve agents, from metabolic and infectious agents, of premature demise from of death panels, and of robbery both at gunpoint and from the government's seizing of a significant portion of resources by taxation (Table 1). Self-protective programs readily respond. The intuitive posture retains a suspicious and hypervigilant stance. To maintain integrity of self and resources, one must demonstrate strength, maintain power individually and collectively, and always be prepared to annihilate an aggressor or institution (Kenrick & Griskevicius, 2013, p. 33).

The second direction of self-protective programs involves an eruption of a barely tolerable anxiety (angst) associated with personal identity fragmentation. Since the worldview provides the primary buffer against dissolution of the self and death (Schimmel, Hayes, Williams & Jahrig, 2007, p.790), a significant attack on one's carefully constructed worldview is experienced as a fragmenting attack on the self. Pyszczynski et al. (2004)

Table 1

Cues of danger, contamination, affiliation/kin and identity loss that evokes intuitive protective responses

Variable	Protection	Disease Avoidance	Affiliation or Kin Loss	Identity Fragmentation
Simple:	danger	foreign	disloyal	empty
	hazard	migrant	deception	untethered
	threat	disrespect	abandon	disintegration
	peril	repugnant	interloper	death
	conflict		betrayal	
	aggression		retaliation	
	violence			
	jeopardy			
Broadened:	thermonuclear	Ebola	flag burning	loss of sacred institution
	sarin	anthrax	Snowden	loss of sacred document
	ricin	HIV	Judas	anarchy
	anthrax	Black	Masons	suicide
	mustard gas	Communist	Rotary	
	taxes			

Note: The table provides common cue words used to engage intuitive mechanisms, distracting individuals from their primary interests. Simple and Broadened intuitions are listed, the latter reflecting amalgamation within the perspective-network of ancient intuitions and contemporary learning.

argue that an attachment of an individual to a functional perspective or worldview is a crucial response to an existential dilemma that is uniquely human. Desperation is often related to recognition of one's own meaninglessness and mortality should the perspective break apart. Personal investment in the perspective is a defense from the "... awareness of the horrifying possibility that we humans are merely transient animals groping to survive in a meaningless universe, destined only to die and decay" (p. 436). An attack and possible destruction of one's perspective will expose the individual to identity fragmentation, to uncertainty, insecurity, disintegration, and anarchy, reactivating a sense of emptiness and meaninglessness that resonates with thoughts of death (Table 1). Pyszczynski et al. (2004) indicate that such threat and despair is unique in humans since lower animals do not have the cognitive capacity to reflect on their own limited life span. The persistence of challenges to individual perspectives can be minimized primarily by distancing oneself from individuals and groups with antagonistic worldviews (pp. 436, 437, 459), reducing the persistence of attack of one's perspective-network by provocateurs. Or, under the command of a strong and rigid perspective-network, the challenge can be averted by censure, denying the relevance of cues suggesting unraveling, disintegration, and anarchy.

Disease-avoidance intuitions in ancient times evoked feelings of fear and disgust and avoidance of infected individuals or groups; they limited one's contact with neighboring tribes. Over the millennia, such intuitions appear to have generalized to intergroup prejudices and stereotyping. Though not originally associated with racial prejudice, cues may have morphed to trigger suspicions of members of ethnic, national, religious, and social categories as well as racial groups. Such out-groups can be conceived as "others" who exist at a lower level of humanity. Such generalized intuitions have been suggested to be responsible for

slavery and for genocide (Park, 2012, pp. 188-191). The disease-avoidance intuitions have also generalized to encompass fears beyond those of individuals and groups. Specific infectious agents themselves and their transmission evoke fears and avoidance behaviors to prevent their spread (Table 1).

Affiliation intuitions initially supported relationships within tribes for collaboration, for sharing skills, pooling risks, and for mutual defense. A critical part of the affiliation intuition was continual vigilance and isolation of the interloper who was prepared to receive, but contributed little to the community. Amalgamation of affiliation intuitions with other programs within the perspective-network involved attaching fuller expectations of reciprocity, reliability, trust, loyalty, and also of compassion with one's collaborators beyond a tribal circle. Empathy emerged toward distress in individuals and groups outside one's immediate community. Names of betrayers of sensitive information by a formerly treasured peer or group evoked denunciation, rejection, and retaliation (Griskevicius, Ackerman & Redden, 2012, p. 316). Unraveling of group cohesion could be avoided by isolation of such defectors (Pyszcnski et al., 2004, pp. 436. 437). With expansion of affiliation from tribes to nations, unpatriotic declarations were met with similar denunciation, rejection and retaliation (Table 1).

Kin-Care intuitions became increasingly activated by recognition of similarities of physical appearance between oneself and others. Such similarities also evoke trust and cooperation within and beyond the biological family. The amalgamation of intuitions resulted in extending such trust and cooperation to those with similar facial and body-types. The integration provided a broader view of family beyond those biologically related to include groups and individuals with similar goals, strategies, and perspectives who can be trusted to

collaborate (Griskevicius, 2012, p. 317). Businesses designed to function with high employee trust and participation for mutual benefit also take on such family-like qualities. They provide recurrent triggers for mutual concern and care. Political organizations, causes, and fraternal orders emerged to invoke kin-care-like intuitions to maintain coherence of purpose and action. Leaders are often very effective in evoking kin-care intuitions of belongingness, commonness of purpose, and behavior through fraternal or patriotic appeals to shared sacred documents and histories (Kenrick & Griskevicius, 2013, p. 71-73) (Table 1).

Intuition in Modern Discourse¹⁰

Cues that evoke intuitive responses are commonly employed to distract, to engage, and to direct the hearer. Their use in the political sphere has evolved to distract hearers from their own interests, to engage them in ridicule of opposition leaders, and to enlist constituents to participate in partisan causes that may be detrimental to the unsuspecting hearer.

Using both historical and contemporary examples, the manner in which intuition can be used first to distract and then to reengage and sway audiences will be demonstrated. Cues of *danger*, of *contamination*, and of *affiliation* often engage constituents in a quest for a return of an imaginary era of sustained social and economic stability frequently espoused by traditionalists, the wealthy, and corporate America. On the other hand, use of *danger* and *affiliative* themes by America's great leaders has been successful in distracting citizens from distress or injustice, and has rekindled hope. It has united the nation to great undertakings (see Appendix A).

Intuitions and Deceptive Persuasion

Deliberate display of cues and narratives that drive intuitive responses is

¹⁰ Ancient intuitions and their modern derivatives are herein *italicized* to remind the reader of the power of established intuitions in generating and sustaining narratives and behavior.

commonly used in pursuit of power through undercover, deceptive, and destructive practices. Many such displays are found within the past decade.

Distraction and Fear: Cheney, Bush, and Saddam

With the intent of galvanizing American interests in the Middle-East, Vice President Dick Cheney, a former petroleum executive, entertained corporate interests for broader oil exploitation and acquisition in the Middle East. At the 2002 annual summer retreat of the American Enterprise Institute, Cheney began discussing the possibilities of an additional source of oil from Iraq, a strategy that gradually gained enthusiasm within the Bush administration (Frum, 2013, p. 2). Cheney finally persuaded President George W. Bush (2002) to announce a new “*grave threat to peace*” that had emerged in the Mideast:

[Iraq] possesses and produces *chemical and biological weapons*. It is seeking *nuclear weapons*. It has given shelter and support to *terrorism* ... and has trained *al-Qaida* members in bomb-making and poisons and *deadly gasses* ... [It] must not be permitted to *threaten* America and the world with *horrible poisons and diseases and gases and atomic weapons*.” Moreover, “[Saddam] has a growing fleet of manned and unmanned *aerial vehicles* [UAVs] that could be used to *disperse chemical and biological weapons* across broad areas ... for missions *targeting the United States* (Bush, 2002).

Bush’s *self-protection* cues of danger to America were likely the critical inducement to spur legislators to authorize troops to Iraq. America would soon be at war. Bush had effectively evoked a series of *self-protective* cues relating to an imminent threat of Iraq targeting the US with poisons and nuclear weapons. Bush’s cues distracted the Congress, the

Senate, and the American people from known petroleum interests in Iraq as they endorsed a rush to war with a tyrant who posed little or no danger to America.

Protecting Wealth from Black Leadership

Soon after he took the Oath of Office in 2009, President Obama outlined his priorities. He called for rolling back the previous administration's tax cuts for wealthiest Americans; he advocated tax credits for middle-class Americans. He sought to reverse a decade of deregulation of American financial institutions and industries; he attempted to protect consumers and investors by regulatory reform. He promoted shifts in energy production to reduce carbon dioxide-induced warming. Obama's challenges to the wealthy, their established corporations, and their way of life did not go unanswered. Multiple business practices and the lifestyle of many wealthy Americans would be in jeopardy if Obama's initiatives could not be blocked.

A scorched earth policy was initiated by the Senate minority leader, Mitch McConnell. He insisted that "The single most important thing we want to achieve is for President Obama to be a one-term president" (Herszenhorn, 2010). Obama's previous achievement, passage of the Affordable Care Act (ACA), had to be dismantled. The House minority leader, John Boehner (2010), indicated that "We're going to do everything - and I mean everything - we can do to kill it [ACA], stop it, slow it down" (Cover, 2010). Vice President Joe Biden, reported on conversations with his former Senate colleagues: "I spoke to seven Republican Senators, who said 'Joe, I'm not going to be able to help you on anything' The way it was characterized to me was: 'For the next two years, we can't let you succeed in anything'" (Grunwald, 2012, p. 207).

As the 2010 mid-term elections approached, the opposition's strategy was more fully elaborated. Citizens had to be distracted from the growing inequality and burgeoning American oligarchy by triggering intuitive responses from citizens that undermined the credibility of Obama and his quest of reform. The "Southern Strategy" was known to have been an effective tool in belittling opponents and generating support for favored candidates and policies and, eventually, for a broader, more traditional and conservative political coalition. The strategy had succeeded in the South and in some other communities by appealing to racism (Valentino & Sears, 2005, p. 672). Fearing backlash for overt attacks on race, advocates of the strategy became skilled in evoking racial triggers by using code words to cue racial messages: "*forced busing*" and "*states rights*" (Lamis, 1999, p. 408).

The early attempts to cue race raised questions about Obama's origin, whether he was an *outsider* and an *usurper*. Questions were raised concerning his place of birth and his birth certificate, overtly addressing his eligibility for office, and suggesting that he might be a member of a foreign tribe who might *contaminate* America with disaster. Paul Ryan, Chair of the Congressional Budget Committee, attempted to cue a mixed *outsider-usurper-contaminator* racial intuition held by many White Americans: "[Black] men [are] *not working*, and just generations of [Black] men *not even thinking about working*, or learning to *value the culture of work*" (Eidelson, 2014). Davis (2014) described a common image of African-Americans as those who "do not have the skills, the knowledge, frugality and moral values needed for participation in society" (p. 7).

A unified opposition prepared to strengthen the familiar narrative of failure of African-American management. It maneuvered to display the president as fiscally *irresponsible* for his attempts to close off tax incentives valued by the wealthy and corporate

America and for his inflexible support of ongoing entitlements. Obama's failure to seriously compromise on such priorities was held up as a threat to the continued fiscal health of the nation. Cues of *disaster*, of *default* on the national debt, of *shut down* of government services, of *loss of paychecks* for government workers, of tightening of household budgets, of further *recession* or even descent into *depression* because of presidential mismanagement of the economy and intransigence strengthened even latent intuitions of the undermining American life by an imposter.

The *disaster* theme readily resonated with the *contamination* theme: the American Way of Life was being infected by an unwelcome potentially infectious strain that might gut a *cherished worldview*. "Master" and "servant" were being turned upside down by election of Obama to the presidency. The cues intuitively suggested to many that leadership by this *unclean*, potentially *contaminating Black* president would result in an intrusion of an alien culture in America. There was a suggestion that the very *identity* of the traditional American nation is now being usurped by foreign tribal leaders. The presidency had been taken over by a member of a race that our ancestors introduced into America as slaves and animals of burden (Davis, 2014, p. 7). The world that was traditionally American was fragmenting before its citizens' eyes; it was being overturned

The insistence of incompetence of and *contamination* by of Black leadership resonated for many with the history of tragic events following the Civil War. The shift to Black leadership and the backlash that emerged during the first five years of the Obama administration and its evolving outcomes bear striking resemblance to the dynamics and consequences that emerged during the period of the Reconstruction period (Table 2). Both manifest threats and responses to the specter of shifting worldviews, both demonstrated

intense anxiety, frantic efforts to consolidate new alliances, and, eventually, of attempts to restore the traditional order.

The first order of business by Obama's 21st Century opponents was not immediately to restore order, but to demonstrate again the failure of Black leadership in America: that a Black man and his visions for America, like the Black men of the Reconstruction, fail to secure order and prosperity. Obama's opponents would insure that the alleged illegitimate government under such leadership would not be functional: the Black President and his policies would be shut-down; his leadership would fail at every possible level.

Table 2

Parallel Histories During Reconstruction and the Obama Presidency

Reconstruction (1866-1877)	Obama Presidency (2009-
Northern enforcement of civil rights of Blacks following defeat of South in Civil War	Northern and Western electorate chose Obama as first Black Presidents of the US
Blacks assume power in the Confederacy States	An African-American president assumes power
Attack on Southern "way of life"	Unresolved place of Blacks in American life
Backlash of Ku Klux Klan and others	Backlash of Tea Party and others
North abandons commitment to protect the rights of former slaves	Obama loses support in Northern states democrat candidates abandon leader
Reconstruction came to an end	2014 midterm repudiation of Obama leadership
Perpetuation until the 1960s Civil Rights Act	? Arrest of progress toward racial impartiality?
Racial segregation	?
Denial of vote	? Voter registration constraints?

Note: The table demonstrates parallels in the periods of emergence of Black power and White backlash during Reconstruction following the Civil War and during the early years of the Obama Presidency. "?" indicates outcome presently uncertain.

Such a strategy seemed to evoke little resistance, as it resonated with predispositions of many who held a parochial worldview, a worldview based both in the narrative of American history and experienced in the primitive intuitions of *contamination* by an *usurper*. Obama had attempted to break a barrier into a *sacred fraternity* of White leadership. Though slavery had been abolished by 1866 in the United States, many remained confident that a Black man is inherently inferior and should always remain servant rather than master or leader. Many of the still White majority continued intuitively to respond to Blacks as “dehumanized human beings ...” (Davis, 2014, p. 6). The established and cherished order is now disrupted by servants who are now challenging White over-seers. The integrity of the worldview of many Americans as guardians of White supremacy is fragmenting. In such a context, fear of personal *disintegration* and *anarchy* could be expected to pour out intuitively in frantic attempts to regain supremacy.

The opposition had used cues and narratives that questioned Obama’s origin and attacked his interloper Black culture and its work ethic deficiency as being un-American. They cued fears that his priorities and his refusal to compromise would lead to economic default and downfall of their beloved country. Such cues triggered *affiliation-interloper*, *contamination*, and *self-preservation* narratives within hearers that generated and sustained *disgust* for Black leadership and Obama. The intuitive thrust driven by derivatives of such ancient reflexes continued to distract many Americans from recognizing the increasing power of wealth and corporate interests in American governance and its threat to democracy. Much of the American public continued intuitively to respond to repetitious cues of *incompetency*, of *contamination*, and of *threats* to a fragmenting American order. Obama’s

approval ratings plummeted to 42% of likely voters (“Daily Presidential Tracking Poll,” 2014).

Lurking Dangers: Taxes, Communism, Fascism

As the 2012 election campaign approached, opponents of Obama’s leadership rolled out new charges in support of reclaiming traditional America. The Republican National Committee (RNC) and its spokesmen took to the media continuing to ridicule the accomplishments of the Obama administration. They suggested that the consequence of Obama’s policies would be a further violation of a *sacred trust* of “no new *taxes*” previously guaranteed by the Bushes. Joel Pollak, political commentator and Tea Party Republican from Illinois, used *self-protection* and anti-Communist *affiliation* features previously characterized by McCarthyism with accusations of *disloyalty*, *subversion* and *treason* toward the State by Obama. Jim Hoft, right-wing blogger and founder of *Gateway Pundit*, moved to the other extreme, using threatening insinuations of need for *protection* from an Obama-based regimented *fascist* administration similar to the Third Reich. Bill Kristol, neoconservative analyst for Fox and editor of the *Weekly Standard*, went straight to Mao’s strategy for China and queried whether Obama’s second term intent was preparing to initiate another ‘*cultural revolution*’ and evoked intuitive responses suggestive of total loss of an *affiliated* community through *revolution* and *anarchy* if Obama were reelected (Seitz-Wald, 2012). Each had attempted to distract their audience from the accomplishments of the Obama administration under threat of calamity should Obama be reelected to office (Suebsaeng, 2012). The cues of additional *taxation* rallied wide opposition (Powell, 2014). Responses to the suggestions of *anarchy* leading to *Fascism*, though heard by many Americans, poorly engaged constituents (Harwood, 2009, p. A18).

Democrats Respond: Suicide Bombers, Arsonists

The president's supporters, generally reluctant to haul out polemics, finally responded with the intention of countering the ferocious opposition to the Affordable Care Act (ACA) within the House of Representatives with threats of Republican-incited *anarchy*.

Congressman Jerrold Nadler from New York indicated that House Republicans were like “*suicide bombers* ... blackmailing the country ... shutting down the country, or worse, destroying the full faith and credit of the US if we don't repeal Obamacare.” Harry Reid, Senate Majority Leader, described the House Republicans as “*arsonists* ... [who are] against government at any level.” From the Senate, Minority Leader, Nancy Pelosi, concurred, “I call them *arsonists* ... They're here to *burn down* what we should be building up” (Unruh, 2013). The rhetoric of Democrats may be partially responsible for enhanced public support for the ACA, from 41% to 49%, from March 2012 to March 2014 despite more than 50 attempts by congressional Republicans to repeal the law (“Post-ABC Poll,” 2014).

Terrorism and Anarchy

Similar to the threat of *anarchy* that had emerged toward the end of the Reconstruction period, opponents of the Obama administration turned toward the specter of impending revolution to draw support away from an “illegitimate” White House occupant. Wally Herger (R-CA) announced he was “proud to be a right-wing *terrorist*.” Michael Bachman (R-MN) proclaimed that “... we are at the point of *revolution* and really now in Washington, I'm a foreign correspondent on *enemy* lines ... I want people in Minnesota *armed* and *dangerous*.” Steve King (R-IA) answered “Let's take that other side to a pulp; let's *take them down*; there is going to be a *reckoning*” (Aznew, 2011). Here, “at the point of *revolution*,” “*terrorist*,” “*armed* and *dangerous*” are highly evocative cues of danger

triggering defensive *self-protection* intuitions in many, but also demanding a response of an *affiliation* choice: to affirm membership in a revolutionary in-group or to remain defender of traditional America in a civil war.

As noted previously, *self-protective* and *kin-care* intuitions require an individual to remain on guard, suspicious, and hypervigilant in order to protect one's self and one's family from danger. The repeated suggestions of *revolution* and of *anarchy* have spawned both an increased alertness and renewed need to protect one's self and one's family by being prepared and joining alliances to insure survival. Whether one was prepared to resist home *invaders, rapists, armed terrorists, and anarchists* has become an increasing concern. In the absence of other mechanisms to quell such anxiety and worry, acquisition and maintenance of personal *firearms* has become a highly invested partial solution among Americans (Aznew, 2011, pp. 31-33). For such advocates, cues of federal restrictions on *self-protective* firearms elicits intuitive, frantic, and paranoid-like efforts to strengthen alliances (*affiliation*) and together attack individuals and institutions that would strip them naked, without defenses in the face of death anxiety. Their antagonism appears to be driven also by the fear of being persecuted by the Obama-led federal government. Personal behaviors as well as enduring support for legislators who "dutifully inform" citizens of threats around every corner are responsive to the ancient intuitions and their modern derivatives. In response to such threats, sentiment for banning hand guns among United States citizens has declined from 60% in 1959 to 26% in 2011 (Roberts, 2012) (see Appendix A for "Firearms and Second Amendment Rights").

Intuitions can also be used by courageous leaders productively to distract citizens from distress, rekindle hope, and to unite a nation to great undertakings. During the past

century American leaders engaged Americans with cues, phrases and narratives in defense of the nation and its citizens; the nation boldly responded (See Appendix B for “Intuitions Motivating Great Undertakings.”)

Circuitry and Perspective Challenges

Skilled deceivers are often successful in distracting hearers from immediate concerns and evoking dysfunctional attitudes and behaviors using ancient intuitions. Such ancient intuitions and their derivatives are often highly resistant to evidence contrary to previously established predispositions and perspectives. Such biases are rooted in the human brain within complex sets of neuronal circuitry. The mechanism by which the established perspective-network influences the processing of disagreeable incoming information is explored herein: how such information is censored; how genetic impediments further bias information processing; how and under what circumstances can information inconsistent with previously established patterns modify the perspective-network for more rational, less intuitive decision making.

Strategies for Studies of Challenges to Perspectives

A limited number of studies have described electroencephalographic or functional magnetic resonance imaging (*fMRI*) studies of regional brain activations of subjects whose perspectives were challenged. These studies include partisans viewing members of political out-groups (Kaplan, Freedman, & Iacoboni, 2007, pp. 57-59), partisans experiencing conflict when processing unflattering information about a preferred candidate (Westen, Blagov, Harenski, Kilts, & Hamann, 2006, pp. 1955, 1956), and a study of Canadian partisans exposed to indictments of their homeland (Schimmel et al., 2007, pp. 791-796). Studies of mechanisms of challenge to preconceived patterns also come from neuropsychological tests

that compare regional brain activations during anticipated vs. unanticipated (conflicted) challenges¹¹. Subjects tested in such neuropsychological paradigms demonstrated virtual identical patterns of regional brain activations as found in studies exploring direct challenges to partisans' invested points of interest. Challenge-related activation of circuits and networks described herein are based on regional brain activations following direct partisan challenges supplemented, when necessary, by regional activations associated with error discovery during neuropsychological testing.

Intuitive Appraisal of Incoming Information: CNS Circuitry

Each time the brain receives new information from visual, auditory, olfactory or tactile circuits, the significance of such information to the organism needs to be determined. The brain has evolved circuitry for dealing *intuitively* with two types of information. Cues trigger circuits and behavior within established consolidated circuitry. Challenges to the integrity of the perspective-network are either censured or directed for consideration of revision of circuitry.

Cues activate circuits already embedded within the perspective-network. Cues may link directly to programs generated by conditioned responses during an individual's experiences. They may link directly with ancient inherited fixed-action patterns. However, most cues used by deceivers to distract and purposefully modify hearers' behavior trigger the consolidated circuitry. Contemporary words, phrases and narratives generate responses typical of the ancient patterns.

While the consolidated nodes and circuitry of the perspective-network are still poorly localized within the central nervous systems (CNS), several of the nodes have been

¹¹ Neuropsychological probes of prepotent (anticipated) responses, challenges thereto, and regional brain activations have been reviewed by Botvinick, Barch, Carter, and Cohen, 2001, pp. 626-629.

identified. Volz and Zander (2014) described an early cue-driven activation of a node in the anterior ventro-medial prefrontal cortex (*vmPFC*)¹² (p. 32) associated with risk, fear and emotion. Ilg et al. (2007) reported intuition-driven activations in heteromodal association areas in bilateral inferior parietal and right superior temporal cortices. They concluded that intuitive responses activate neural systems that are an “... integration of remote associates into a coherent representation and ... [the findings] support the assumption that intuitive judgments are based on an activation of wide-spread semantic networks sparing a conscious representation” (p. 228). Such integration of ancient and contemporary circuitry results in cue-driven intuitions resonating with the urgency of primitive survival motifs, distracting the hearer to protective maneuvers for maintaining security for self and tribe. The integrity of perspective-network and cue-driven dysfunctional intuitions remains strong unless the network can be challenged and weakened by repeated incursions of contrary information.

The brain has also adapted by evolving additional circuitry for appraisal of challenging incoming information, for either incorporating it into the perspective-network or rejecting the information as not being relevant. Agreeable and disagreeable information entering the central nervous system (CNS) from the sensory apparatus is generally delivered to and subsequently distributed by the thalamus. The critical structures within the brain for handling such new information are circuits arising connecting the amygdala¹³ to the anterior

¹² ventro-medial prefrontal cortex (*vmPFC*) – is located at the anterior medial bottom of the cerebral hemispheres adjacent to the olfactory area. It is activated by cues provoking intuitive responses as well as suppressing anxiety associated with emotionally-laden cues. It is activated by projections from the amygdala and provides feedback inhibition of amygdalar activity (Stahl, 2008, pp. 760).

¹³ amygdala – an almond-shaped structure located deep and medial within the temporal lobe. When activated by incoming information, especially by emotionally-charged information, it activates the anterior cingulate, and to a lesser extent, the frontal cortex (Stahl, 2008, pp. 728,730).

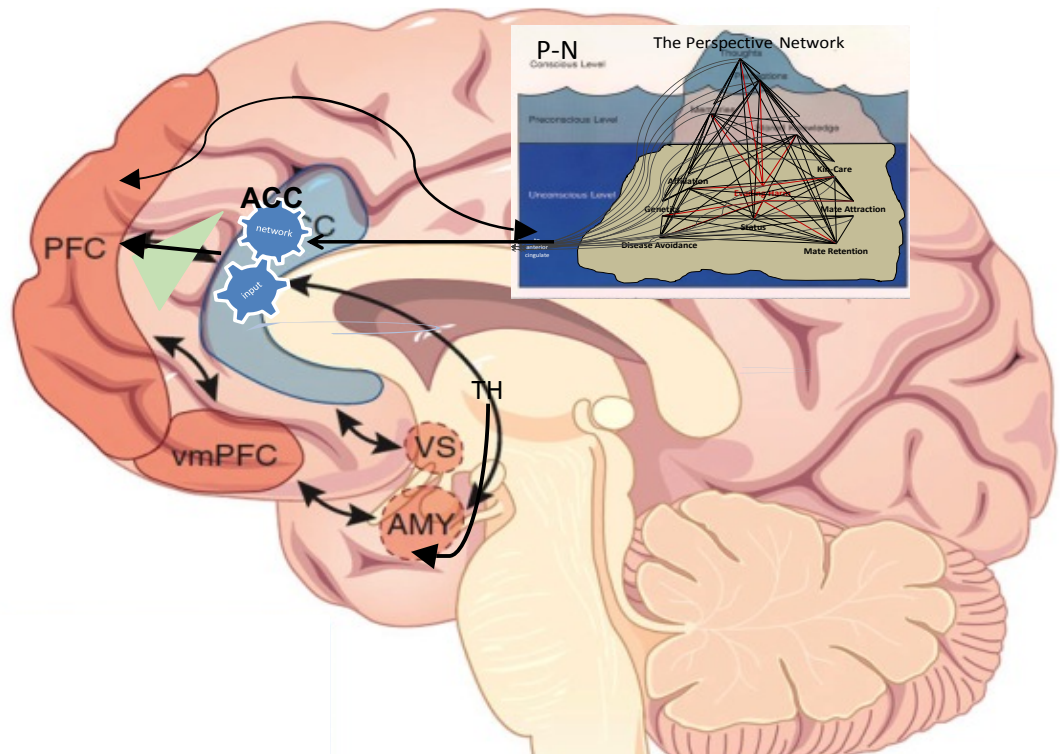


Figure 2. Intuitive Processing of Incoming Information. Incoming information from the thalamus (TH) through the amygdala (AMY) is processed in the anterior cingulate cortex (ACC) competitively with information stored in the perspective-network (P-N). The P-N matrix, here imported as *Figure 1*, modulates reception of new information by the ACC. Input agreeable with the P-N is transmitted to the prefrontal cortex (PFC) for conscious recognition and processing in conjunction with the P-N. Information strongly challenging the P-N may be censored without being recognized (Modified from Tost & Meyer-Lindberg, 2012, p. 212).

cingulate cortex (ACC)¹⁴, connections from the ACC to the dorso-lateral prefrontal cortex

¹⁴ anterior cingulate cortex (ACC) – located anteriorly on the medial side of the cerebral cortex just above the corpus callosum. It responds to errors or inconsistencies between predispositions and incoming information. It gates transfer of information from amygdala to cortex.

(*dIPFC*)¹⁵, and connections from the perspective-network to the ACC, and from the *dIPFC* to the perspective-network (Figure 2).

Agreeable and disagreeable information entering the central nervous system from sensory apparatus is generally delivered to and subsequently distributed by the thalamus. The amygdala, alerted to new information from projections arising in the thalamus, is almost instantly activated by potentially emotionally-clad cues, especially those related to danger and threat (Indovina, Robbins, Neunez-Elizalde, Dunn, & Bishop 2011, pp. 563, 564).

The amygdala, via the amygdala-cingulate bundle, activates the anterior cingulate cortex (ACC) that is geared to assess the possible significance of incoming information. The ACC operates as a gatekeeper for entry or suppression of new information into higher cognitive networks. If new information is relatively consistent with established presumptions and predispositions within the network, the ACC to *dIPFC* pathway is activated with transmission of the new information to the *dIPFC* (Botvinivk, Braver, Barch, Carter, & Cohen, 2001, pp. 625-628; Kerns et al., 2004, pp. 1024-1026; vanVeen & Carter, 2006, pp. 237-239). Activation of the *dIPFC* is accompanied by a conscious awareness of the introduction of new or confirming information. When the transmitted information is predominantly congruent with already established predispositions, the activity of the *dIPFC* further confirms the integrity of the perspective-network (Figure. 2).

However, in the presence of major conflict between incoming information and that of the perspective-network, especially when that conflict is emotionally charged, the reception of such divergent information by the ACC may not be followed by transmission to or activation of the *dIPFC*. Westen et al. (2006) found that processing through the ACC is

¹⁵ dorso-lateral prefrontal cortex (*dIPFC*) – located on the prefrontal cortex. It is the site of higher cognitive functions including working memory, planning, organization, and regulation.

blocked during an emotionally aversive challenge that occurs when the conflict between the new incoming information and the perspective-network appears emotionally irreconcilable. The information is censured as being irrelevant to the organism, and the anxiety signal from the amygdala is inactivated – all without entrance of the conflict into consciousness (p. 1955).

Strength of the perspective-network to overcome and censure novel information is a function of the network's previous confirming or destabilizing influences. A weakened network from previous challenges may be relatively unstable. Strongly invested beliefs may weigh heavily in favor of suppression of disagreeable new information; minor incursions by new information may be easily repelled. As Antonov, Antonova, Kandel, and Hawkins (2003) have noted, as an incoming challenge becomes repetitive or catastrophic, sensitization of relevant incoming synaptic transmission may occur (p. 135). Such sensitization by repetitive challenges may surmount the competitive resistance to change provided by the perspective-network. The challenge finally may slip through to activate the ACC and convey a contesting message to the *d/PLC*'s for activation and processing (Figure 2). For example, repeated catastrophic flooding of a New York City resident's subway may force a climate-change denier to consciously recognize flooding and multiple additional threats that may lead to changing attitudes toward climate-change. The relative weakness of the established perspective-network begins to give way to an undeniable intrusive actuality.

Rejection of new challenging information is not only the consequence of overwhelming strength of a rigid perspective-network, it occurs also in the face of inherited weaknesses of the ACC's ability to respond to amygdalar provocation. There appear to be at least three heritable traits that cause weakened ACC activation or enhancement of

perspective-network strength resulting in a pattern of persistent censure of disagreeable information.

Genetic Bias for Failure of New Information Processing

A subgroup of individuals appears to have a genetic predisposition manifest as “trait anxiety,” a chronic familial disorder with impaired regulation of fear. The trait is readily detectable in young children and persists into adulthood (Block & Block, 2006, p. 740-42). Such subjects demonstrate an unusually robust activation of the amygdala to a variety of stimuli. However, the usual associated activations of the ACC and the *vmPFC* activations that would ordinarily dampen the hyperactivity of the amygdala through feedback loops, are either attenuated or missing (Etkin, Prater, Hoeft, Menon, & Schatsberg, 2010, pp. 551, 552). Instead, the hyper-activated amygdala bypasses the ACC, directly activating the *dIPFC*, but fails to provide the *dIPFC* with the challenge’s content that is ordinarily received and processed through the ACC. Diffuse, unfocused *dIPFC* activation downstream of the amygdala persists in the absence of amygdalar inhibition by ACC and *vmPFC* activity. The individual is burdened with continual worry, the principle characteristic of trait anxiety.

Heightened anxiety with persistent sensitivity for activation of the amygdala and failure of consequent activation of the ACC and the *vPFC* has been found in subjects who have inherited a polymorphism of the serotonin system: a short arm variant of the serotonin reuptake pump (5-HTTLRP) (Hirari et al., 2005, p. 150). The consequence of this variant also appears to be a decoupling of the amygdala from activating both the ACC and the *vmPFC*. Investigators have reported a compensatory enrichment of connections from the amygdala directly to the *dIPFC* (Heinz, Smolka, & Braus, 2004, p. 685). Amygdalar activation projects directly to the *dIPFC* and is experienced as chronic worry without insight

into its origin. The content of the specific challenge has been censured by the ACC's inactivity (Etkin et al., 2010, p. 552).

The action of dopamine on DRD4¹⁶ receptors in the ACC ordinarily facilitates activation of ACC circuitry that detects the balance between the relative strength of the perspective-network and challenges thereto from incoming information. A genetic variant of the DRD4 receptor, DRD4-*r7*, is relatively insensitive to dopamine (Camara et al., 2010, p. 1993). Reduction or failure of ACC activation following challenges is characteristic of the effects of the DRD4-*r7* variant upon the operation of ACC circuitry. Such reduction renders the ACC less able to detect, process, and gate information projected to downstream targets (Kienast et al., 2008, p. 1382; Gilsbach et al., 2012, p. 422).

Ludeke, Johnson, and Bouchard (2013) described an additional inherited predisposition that influences behavior and, when transmitted to particular individuals, becomes an embedded component within the perspective-network. In a study of identical vs. fraternal twins, the authors independently replicated data in a previous study by Blazer (2012, pp. 100, 101), demonstrating that similar patterns of authoritarianism, conservatism, and religiousness were significantly more prevalent in identical rather than fraternal twins. They suggest that the data demonstrates a single underlying genetic predisposition that leads some individuals to adapt conservative bedrock social principles, political ideologies and religious conventions. They termed the predisposition "traditionalism" (Ludeke et al. pp. 378, 379). Circuitry and neurotransmitter system(s) underlying this predisposition are unknown at this time, but are likely to impede modifications of the perspective-network from

¹⁶ DRD4 – one of several receptors with mutations differentially activated by the neurotransmitter dopamine

greater openness to incoming information reflecting novel social, political and religious revision, as indicated below in the “The Limits of Cognitive Restructuring” section.

Regaining Rational Thinking and Behavior Despite Signals of Deception

Cognitive Restructuring

As noted previously, the development of a worldview or perspective-network is a complex amalgamation of ancient intuitive action patterns that promoted species survival and an expanding repertoire of conditioned learning derived from personal experience. It is an assembly that tries to make sense of the world of experience, providing the individual with both a reasonably predictable structure through which to understand the outside world and a sense of meaning as one is involved in its perceived patterns. For most mature individuals, the perspective-network has become increasingly rigid as many types of challenges already have been assessed and either rejected or incorporated into the perspective-network.

But new challenges continue to arrive confronting the network. Responses once triggered by functional intuitions may no longer serve to protect citizens from danger in the modern area; they may themselves exacerbate danger. One would not want to inactivate the ancient intuitions that have served humanity well over the millennia, but such intuitions may now need to be disentangled from dysfunctional attachments to many modern experiences involving diverse cultural and economic realities of the 21st Century. Threats and support systems now differ widely from those of early man, but ancient intuitions continue to be activated in contexts only peripherally related to those for which they originally emerged.

Cognitive behaviorists and developmental psychologists suggested that such dysfunctional fixed action patterns triggered in response to cues and their associated circuits within perspective-networks often can be revised (Beck, 2011, pp.31, 33). Goldapple et al.

(2004) found that a systematic application of cognitive restructuring using Cognitive Behavioral Treatment (CBT) methods in subjects with distorted perspectives of *self* resulted both in increasingly adaptive responses to challenges and an associated augmentation of metabolic activity in the cingulate cortex (pp. 34-38). It is likely that increased activity in the ACC reflected a decrease in censorship with increased flowing of new information through the ACC into the prefrontal *dIPFC* with eventual modification of the perspective-network circuitry associated with self-perception.

Enrichment of Challenging Input

Consistent with the model previously developed and discussed in this thesis, the process of cognitive restructuring begins with a gradually increasing influence of new information that challenges supremacy of the perspective-network within the ACC. Increasing strength of challenging information is due to enhancing the potency of message transmission through sensitization. Such sensitization is the consequence of multiple challenges that evokes both facilitation of pre-synaptic input and potentiation of post-synaptic receptor response within the circuitry (Antonov et al, 2003, pp 135, 141-145), with the challenge finally successfully competing against the perspective-network.

Conscious Recognition of Conflict

As new information that is contrary to patterns within the perspective-network begins to effectively challenge the network's strength at the ACC, some challenging information begins to break through the ACC barrier and into the *dIPFC*. We suggest that the appearance of the new challenging information in the *dIPFC* is associated with a *conscious* recognition of conflict with the perspective-network.

Rationalization vs. Revision

As fragments of challenging information begin slipping into the *d*lPFC, they may be recognized to be in conflict with the predispositions within the established perspective-network. The *d*lPFC may initially attempt to rationalize or invent an alternate explanation for the challenging intrusion in order to retain consistency with the perspective-network. But as further evidence accumulates and synapses become increasingly potentiated, the option of avoiding direct confrontation with the perspective-network wanes.

When the conscious *d*lPFC fully recognizes that the conflict and rationalization can no longer contain the torrent of challenge, strategies for perspective-network modification can be consciously activated. Such recognition provides the opportunity for an individual to begin to reflect on dysfunctional choices and behavior in which one has unconsciously been a participant. It is the beginning of an opportunity to identify and study cues provided by deceivers to sway opinions and behaviors, cues that resonate with ancient intuitions.

Identifying Cues

In the beginning, identifying cues may be difficult since they are not detected on a conscious level. Their presence can be inferred by the rapid occurrence of an accompanying emotional, somatic, or behavioral response. Frequently associated with activation of a dysfunctional intuition is a sudden shift in emotion or an urge to respond in the absence of conscious rationale. A sudden appearance of fear, disgust, or compassion, or an immediate impulse to grasp onto mechanisms that provide safety is characteristic of the protective changes, such as increased heart and respiratory rates and changes in galvanic skin response may also accompany activation of such intuitions. Identifying and maintaining vigilance for cues which evoke such responses are the next steps in the strategy of network modification.

Table 3*Feelings and Behaviors Associated with Activation of Ancient Intuitions & Identity*

Protection	Disease Avoidance	Loss of Affiliation or Kin	Identity Loss
paranoid	contamination	grief	lost
hypervigilance	repugnance	abandon	angst
flight	prejudice	distrust	frenzy
fight	avoidance	betrayal	desperation
security:		retaliation	death
seeking firearms		weakness	
establishing walls			

Note: Emotional and behavioral response by ancient intuition type may also accompany activation of such intuitions. Identification and developing vigilance for cues are the next steps in the strategy of network modification.

Identification and Exploration of Predispositions

Having identified cue words or phrases, an individual in the midst of network modification searches for an underlying assumption or hidden predisposition that is readily evoked by such key words or phrases. The obvious candidates for such assumptions or predispositions are those related to dangers once experienced by ancient man that may or may not be relevant to ongoing contemporary challenges: fears of bodily damage, of contamination, of loss including loss of identity, and of impending mortality of self and of one's genome. Beck (2011) recommends that seekers use the Socratic Method of discounting apparent certainty associated with identified assumptions or *presumed* facts and dynamics that are frequently attached to cues used to sway opinion and behaviors (pp. 10, 11). By

removing pretense of certainty, the restructuring method aims to provoke a deeper understanding of the subject matter. The individual is instructed to question everything concerning the presumption, leaving no possibility untouched.

Adopting a stance that allows and requires further investigation of the uncertainties of presumptions is the major step that begins to open access to the content of the perspective-network. The opening is likely to be gradual as various sets of *presumed* world perspectives and their dynamics are questioned and then carefully weighed against increasingly sound estimates provided by an unencumbered *dIPFC*.

There are always difficulties choosing which set of “sound estimates” for the *dIPFC* to utilize as the “sound” standard. A common practice might be to entertain information and dynamics reported by a resource that presents an alternate view to one’s customary source of information and predisposition. If the custom is FOX News, one might want to try Public Television; if the custom is the popular conservative talk-radio of Rush Limbaugh, an alternative set of information and perspective might come from Public Television’s David Brooks and Mark Shield, or New York Times columnist Thomas Friedman. Apparent contradictions in reported facts or dynamics may require additional effort in research.

Greater understanding of the facts and dynamics of the issues are accompanied in most seekers by a sense of accomplishment and pleasure, likely associated with dopamine release within the inferior striatum, providing a positive reward for successfully accomplished tasks. Recent evidence indicates that anticipation itself as well as engagement in such tasks are associated with a rewarding dopamine release (Salamone & Correa, 2012, pp. 471-472). The exploration is likely to be rewarding so long as fragmentation of the

perspective-network during the modification process does not release intolerable existential anxiety.

Capturing the Contexts

As noted above, the goal of modification is not to silence original intuitions that were selected for survival, but to delay and suppress their activation in contemporary situations until a conscious, high-level judgment can be made concerning their applicability in current contexts. Aware of the intuitive process, an individual desiring perspective modification must attend to the details of the current context. Knowledge of context is critical: the background, the issues that are being addressed, and the character of the individual or institution introducing the cues. Is there a real threat or has it been invented by a spokesman to divert attention from other critical issues? What are the issues the spokesman wants to avoid? Who is the spokesman? What does he/she have to gain by eliciting one's compliance with the spokesman's intended objective?

For example: The *fear* and *self-protective* cues phrases offered by Bush (and Cheney) to distract the American public from the interests of corporate energy in Iraq needed to be consciously detected and examined in the light of a body of information that was both failing to confirm the danger of "*horrible poisons, disease and gasses and atomic weapons ... [delivered by] manned and unmanned vehicles*" and the well-known attempts at exploitation by energy industries. Moreover, it was clear that the message was being constructed and delivered by a former principal in the oil industry. The conscious recognition of the rhetoric as an attempt to evoke support for an invasion and occupancy of Iraqi oil fields could have resulted in an entirely different response from the Senate and the American people. Particularly following the emotional upheaval of 9/11, few were attentive to the background

of oil interests or deception from the US government; few were vigilant for the cues that intuitively triggered a strong affiliative endeavor to oust the allegedly threatening Saddam Hussein and replace him with a puppet presumed to be friendly to energy interests of corporate America. By maintaining vigilance for cues known to trigger uncritical intuitions and by maintaining familiarity with the intricacies of present contexts, one can consciously assess the soundness or deceptiveness of the messenger's purpose.

Sound judgments are often difficult when issues are highly complex. Intrusions by governments that claim a share of salary or profits at tax time are unpopular for both individuals and industries. Reductions of taxes are intuitively advantageous for everyone. Such intuitions are reinforced by narratives claiming that reduced taxes promote investment in new industries, put disadvantaged citizens to work, increase citizens buying power and usher a wider portion of the population into the middle class. This promise of gain to both individuals and industry is difficult to oppose. Hearers and responders who are prepared to affirm some validity of the tax narrative are distracted from appreciating that tax reduction is of low benefit to disadvantaged citizens. Instead it generously rewards the already wealthy. The disadvantaged are so enchanted by the fantasy of retaining more of their own resources that many fail to recognize and appreciate the findings of multiple studies that document rare use of profits by the wealthy to start new industries, to enhance employment, and expand the middle-class. Instead profits from tax reduction are used to enhance their own wealth and power (Kruegman, 2014, p. A17). Use of the tax narrative allows the already wealthy to continue to amass fortunes and leaves the disadvantaged even more vulnerable due to lack of services. Attention to and comprehension of the significance of narratives contrary to the

intuitive advantages of tax reduction may be beyond the higher cognitive skills of a substantial portion of the population.

Persistent Traces of Old Connections

Even if an individual is successful in modifying the perspective-network such that particular dysfunctional intuitions seem to be no longer operative, the old patterns and circuitry remain functional just below the surface. Their output has been only weakened by new learning incorporated into the partial modification of network components. Prevention of relapse requires continued conscious vigilance utilizing higher cognitive resources for identifying otherwise inexplicable dysfunctional affects or behaviors as well as continued alertness for cues that triggered such dysfunctional responses.

Limits of Cognitive Restructuring

Though cognitive restructuring can limit intuition-driven deception, cognitive restructuring practices are a limited and arduous tool, especially for those who are most susceptible to deception. For others, especially those whose cognitive processes are less driven by a desperate pursuit of structure and certainty, cognitive restructuring is almost a way of life, an extension of the process of perspective maturation that begins in childhood, flourishes in adolescence, and is extended into the entire life cycle. What characterizes individuals at this latter end of the spectrum is a relative freedom from anxiety, relative comfort during periods of uncertainty, healthy self-esteem, and awareness and acceptance as a full participant in the life cycle, relatively unafraid of challenge or of one's own mortality (Pyszczynski et al., 2004, pp. 438, 439). It is clear that it is a spectrum with a large number of citizens between the poles.

At the other end of the spectrum are those with severe anxiety trait and/or with polymorphisms that result in little or no activation of the ACC following challenge. Incoming information that is incongruent with that of an established perspective may simply be censored in individuals with 5-HTTLRP or DRD4 -*r*7 alleles. The content of the challenge fails to appear in consciousness. Only persistent anxiety remains that even intensifies the need for structure and rigidity in the perspective-network. There would appear to be little chance, or little interest in any type of cognitive modification in such subjects in the absence of major catastrophe – shaking and tearing apart of the perspective and its network with a new start for fundamentally reconstructing based in new experiences. Such “conversions” may be sporadic. The classic conversion of Saul on the road to Damascus might be such a fundamental rearrangement of perspective in response to the catastrophe of sudden blindness. Driven by continued anxiety, Paul’s new Christ-centered perspective readily became as rigid as was the old Jewish-Pharisee perspective. Less dramatic existential crises occur on college campuses and among middle-aged adults in times of personal crisis.

Between the poles of the spectrum is a group of individuals with intact and functional ACCs, but with well-entrenched perspective-networks. Entrenchment of a significant subgroup of citizens may be associated with a genetically driven predisposition and associated circuitry for “traditionalism,” as described by Balzer (2012, pp. 100, 101) and Ludeke et al. (2013, pp. 378-379). The presence and activity of such innate circuitry during development undoubtedly influences choices of and comfort with specific groups of peers, specific media, fraternal orders, and educational institutions whose values resonate with traditionalism, all of which enhance a developing rigidity and strength of the perspective-network. Breaking into such a consistently built perspective-network with incompatible facts

and narratives, though not impossible, becomes very challenging. Such genetic predispositions place citizens near the intractable end of the spectrum for perspective modification.

Entrenchment within the perspective-network in others without such genetically-driven predispositions is a matter of degree; it is on a continuum. Many learning experiences and patterns of behavior had been repeatedly endorsed and reinforced by peers, many of whom have been selected to provide a comfortable fit with an emerging worldview. An individual's perspective also becomes fossilized and strengthened by the weight of support created by one's choice of media and one's peer community. As the selection of peers, peer group, and media becomes increasingly narrowed by habit, little contrary information and few new concepts are presented to and challenge the perspective-network. Only if catastrophe proves the consequences of the perspective to be ruinous or peer support for perspective dissolves or becomes antagonistic is the mature perspective likely to be shaken.

Personally ruinous outcomes that undermine identity and self-esteem provide an occasion for perspective disruptions and reconstruction. A fragmenting perspective loses much of its power. The perspective-network, weakened with repeated volleys of conflicting information entering the CNS, can no longer effectively censure contrary information that begins to slip through the ACC gate into the *dIPCF* for higher cortical consideration. It is the beginning of an opportunity for perspective modification. As the *dIPFC* is able to develop a sound appraisal of new information, it begins to modify circuits within the perspective-network. Cognitive restructuring can begin unless the immediate angst of personal dissolution becomes so intolerable and inescapable that suicide becomes an attractive option.

The rigidity of a group's perspective, its bias to attend solely to information supportive of a cherished perspective, and group fragmentation over revision is illustrated by the unexpected loss of the presidency by Republicans on election night 2012. Republican candidates, Party workers, and Party-supported polling were confident that their presidential candidate would be elected to the White House. The election results caught most Republicans by surprise (Budig, 2012). The Republicans and their pollsters had censored access to evolving public opinion and the results of independent pollsters; the strength of their rigid perspective censored incoming sound information. It was a catastrophe for many Republicans. It was a multifaceted challenge that sensitized transmission of a clear incoming message competing in the ACC with a rather rigid perspective-network. In some Republicans it allowed higher level reassessment of priorities, policies, and strategies. Yet other Party members with a powerful, fossilized, unyielding perspective-network have been unable to break into cognitive modification of their perspective, still censoring or rationalizing the significance of the loss; it was and continues to be too threatening (Hullinger, 2012). Less rigid fractions of the Party appear to be making modest shifts in perspectives and strategies to account for public opinion and re-electability.

There are many other examples of cues that open narratives brimming with denial. As noted previously, "costs," like taxation, cue narratives in which resources are snatched away from individuals and their social units. The narrative of high costs for energy, for transportation, for essentials required in daily living threatens limited family resources. The threat of distant global warming cannot match the threat of loss *today* of family resources from inflationary costs providing for the design and construction of a sustainable energy program. Denial of global warming, triggered by cues of costs eroding relatively fixed

resources, has become a stumbling block to progress. The denial of global warming and its effects has been driven by coal, oil, and even natural gas interests and their lobbyists on Capitol Hill. The narrative has been incorporated into the perspectives of more than twenty-three percent of Americans who continue to believe that risk of global warming is based on fallacious information or is exaggerated by unscrupulous scientists while fifty-three per cent deny human causation (Mooney, 2014). Depending on the rigidity of one's perspective, another East coast super-storm flooding of NYC subways, together with droughts through the West, calving of ice shelves in Antarctica, and the melting of Greenland and Alaskan glaciers may begin to make the rhetoric of scientific fraud and deception feel hollow for some skeptics. For these individuals, the evidence of effects of global warming may cause opening of the ACC circuit for transmission of new information into consciousness, with potential revision of perspective to require serious investment in alternative sources of energy including geothermal, photovoltaic and nuclear energy.

The conflict can be addressed in one of two ways, depending on the relative power of the challenge and the network. When the cue and narrative of cost trickle through the ACC into the *dIPFC*, higher cognitive function may still disregard the seriousness of the challenge by inventing a *rationalization* for the challenging events, such as a one-of-a-kind storm and flooding: "It only *appears* to contradict the old perspective because" There is no need to further challenge the perspective-network because the conflict has been explained away for the time being, and the *dIPFC*, the ACC and the *vmPFC* have suppressed the unease associated with growing contrary evidence. Alternatively, higher cognition may side with the challenge, assessing its strengths as well as additional evidence of melting glaciers and documentation of the hottest decade in recent history, issues that become increasingly

difficult to ignore or rationalize without persistent unease. Then the process of cognitive restructuring can begin in earnest. The *d*/PFC with each recurring fragment of evidence repeatedly chips away at dysfunctional intuitions and rebuilds the perspective-network into an increasingly experience-coherent perspective. The rhetoric of politicians and industry is defeated; their repeated cued references to science *imposters*, to *cost encroachment* of clean carbon dioxide-free energy and to *economic collapse* of individuals, families and corporations have lost their potency.

Clearly, there is a spectrum of difficulties in initiating cognitive restructuring of perspectives associated with a range of circumstances: from individuals with ineffective activations of ACC; from those with inherited predispositions toward traditionalism and/or trait anxiety; from individuals defending from anxiety through well developed and well supported perspectives; to those with relatively little anxiety, relative comfort during periods of uncertainty, healthy self-esteem, and with an awareness and acceptance of themselves as participants in the full extent of the life cycle.

Conclusion

. . . . So now America is headed for a *complete and total disaster* as Obamacare is fully implemented over the next several years. Obamacare is going to *absolutely shred* the infrastructure of our medical system, it is going to send health insurance premiums soaring . . . [it will] fundamentally alter the relationships between doctors and their patients

- Michael Snyder¹⁷ (2012)

¹⁷ Michael Snyder is a conservative columnist and blogger best known for his dystopic novel *The Beginning of the End*.

Disaster is said to be upon us. You'd better not need a doctor or a hospital – the medical system is being *shredded*. These are words and phrases that awaken and call us to battle, to take up arms. It is difficult not to respond intuitively to such threats, to join the bandwagon to recover the security of the past relationships and affordable costs: a security of order, the old order, and the security of a nation that was – yet will never be again. Never mind that routine medical care will finally be available for the first time to millions of Americans, that preventive services will be introduced to those who have done without, that citizens will have their own clinics instead of being relegated to costly emergency services when bodies and lives literally fall apart. Quickly, such benefits need be abolished! Let's get on with crushing these opportunities for widespread availability of medical care, the symbol for all that is wrong with the President and his administration – to be abolished, as legislators already have attempted more than fifty times.

Many politicians continue spreading the venom. Surveys report that following passage of the ACA more than 50% of American citizens were persuaded that the ACA will result in the ultimate loss of life-sustaining medical services and urged repeal of the newly provided benefits (Foster, 2010).

Activating primitive responses remains a handy and effective strategy to redirect interest and energy from real world dilemmas into service of parochial interests. The monotonous repetitions of cues and their narratives haunt and condition our perspective-networks. Rational counterattacks have been weakened, if not stalled, by free-flowing monies from the wealthy and corporate coffers to campaigns of their loyal legislators and to marketers. Intuitive reflexes that have well-served species survival for millennia provide the channel through which deceptions enter, spread and fortify maladaptive and sometimes

destructive policies. Such invasions now threaten the well-being, if not survival, of millions of Americans.

Herein we have explored the hidden mechanisms of the human information processing systems that, when gullible citizens permit exploitation by politicians, result in such a rout of rationality. It may now be possible to be alert to the use of ancient cues that partisans deliberately evoke to divert attention from issues relating to today's common good. One can now understand how repetitive presentations of fabricated narrative, especially when enhanced by a consensus of colleagues, fortifies a dysfunctional perspective-network in its encounter with incoming real world challenges. Difficulties in remodeling perspective-networks associated with constitutional weaknesses of ACC activation and transmission from genetic polymorphisms can now be appreciated.

The availability and dysfunctional use of intuitions by partisans who seek to limit the introduction of advances in medical care delivery, who discourage new strategies for energy generation, for job creation, and for enhanced educational openings for the poor and unemployed is scandalous for America and its citizens. Limited awareness of such partisans' tools and strategies, of one's own susceptibility to respond intuitively to deceptive cues, of dysfunctional response patterns already sanctioned by associates will continue to restrict citizens' opportunities and perpetuate cultural decay.

Yet most are acquainted with relatively anxiety-free individuals who seem to be constantly searching for fresh experiences, for creating new ways of assembling information and experiences together, for challenging established cultural perspectives and even their own perspective-network. They seem to possess a fairly loosely knit and malleable circuitry within their perspective-network. Their cingulate cortices are undoubtedly readily activated

by incoming information; their frontal (*d*/PFC) regions recognize the implications of new incoming information. They continually remodel their own perspective-network and demand revisions of policies reflecting needs within their communities. From an extended perspective, such relatively emancipated citizens have opened avenues of progress. They engage their communities.

These are the contrarians who have moved America forward. They were there as midwives at the birth of the American Revolution. They were incensed at the imposition of slavery and discredited it. They resisted inequality by creating the New Deal and supported Labor to restore personal dignity. They combated racial injustice through the Civil Rights movements of the 1950s and 1960s. They opposed the patriotic irrationality of the McCarthy era. They challenge pollution, homophobia, inequality, and demanded educational reform. The liberalization of America's perspective has moved forward by starts and stops, but it has made dramatic gains over the past century.

America has moved forward because of often unwelcomed antagonists who made demands on many individuals and communities for reconstructing perspective-networks, making use of fresh new ideas, strategies and techniques. Citizens became aware of cues of antagonists for change, as well as cues demanding maintenance of the status quo. Innovators repeatedly challenged dysfunctional traditions or policies with evidence, fracturing values and perspectives of individuals and communities that were fossilized until cracks appeared in their networks. Weakened perspective networks allowed incongruities to be brought to the attention of higher, more rational examination and initiated subsequent revision of perspectives, when required. Yet many citizens remain stuck in rigid straight-jacketing ideologies that are supported by deceivers with highly partisan goals. There is persistent need

for responsible neighbors to gradually aid others to circumvent systematic distractions and to raise the curtain on censored evidence regarding important aspects of a hearer's livelihood. Potential advantages to self and family becomes a motivator to explore potential benefits, to explore why such advantages are not readily available, and to identify cues for oneself and one's community that have been used to divert attention from such advantages. A gentle and empathic approach is needed for neighbors already caught in such nets of deception, an approach that is sensitive to their fears of alienation from those who have helped mold their perspectives and peers who have supported dysfunctional perspectives and behavior. It may be the beginning of a neighbor's journey toward the satisfaction of new discovery as well as recovery of a just proportion of the American Dream.

Appendix A

Firearms and Second Amendment Rights

New words and phrases capturing self-protection intuitions have emerged, especially following recent Supreme Court decisions affirming the right of individuals to keep and bear arms. The injunction of *Second Amendment rights* has itself become the new cue for self and family security for a significant segment of America that fears anarchy or suppression of rights by the federal government. Interaction of public hunger for acquiring personal tools to secure personal and kin safety coupled with financial interests of weapon manufacturers and suppliers have resulted in major unification of deceptive, intuition-driven rhetoric by legislators on both sides of the political spectrum. The alliance has led to increased risk, rather than to ameliorate perceived dangers to citizens. A hint that a legislator may not fully advocate *Second Amendment rights* – to deny the right of virtually all citizens to purchase and bear arms with few restrictions – has become a hazard for candidates' reelection since money, political advertising and electability frequently flow to candidates who protect the weapon industry's interests. The cues of potential loss of *Second Amendment* privileges resonate with the fears of anxious citizens, frequently allying with fear-sponsoring industry to form virtually unassailable alliances despite the escalating dangers of easy accessibility of weapons to individuals, families and communities. In response to such threats, sentiment for banning hand guns among United States citizens has declined from 60% in 1959 to 26% in 2011 (Roberts, 2012).

Appendix B

Intuitions Motivating Great Undertakings

Intuition can also be used productively to distract citizens from distress, rekindling hope, and uniting a nation to great undertakings. During the past century courageous American leaders came forth to engage Americans with cues, phrases, and narratives in defense of the nation and its citizens; the nation boldly responded.

Affiliation: F.D. Roosevelt and the Great Depression

In 1937 America was just beginning to emerge from the Great Depression. In the prior decades there had been an accelerating unequal distribution of wealth that contributed to loss of confidence and the financial “crash.” There was widespread sensitization to loss. Millions had been out of work; millions more had been hungry. President Franklin D. Roosevelt (1937) attempted to enjoin the American people with his administration in a difficult battle to overturn the dominance of special interests at the far right of the economic and political spectrum. He used cue words in his speeches that were designed to activate *self-protective*, *affiliation*, and *kin-care* intuitions and behaviors. He spoke of “*danger*” of even further loss of one’s own property. He condemned the “monopolies” and “financial oligarchies” as *affiliative interlopers* who benefited from the toil of the American workers, but failed to reciprocate by denying just benefits (pp. 49-51). He sought support for a special session of Congress to overturn the *evil* oligarchs so as to redistribute the fruits of American knowhow and industry to the people. Roosevelt’s words were enforced by a grave and deliberate prosody, capturing the imminent threat to individuals and the nation. Against great opposition from the business and banking communities, Roosevelt was able to secure popular support for re-regulation of the financial system through the Securities and Exchange Acts in 1933-34.

Danger, Affiliation: H.S. Truman and the Steel Strike

America was in the midst of the Korean War in 1952 when the steel industry, embattled with its unions, defied the recommendations of the Wage Stabilization Board and planned to shut down America's steel mills. President Truman (1952) used the same cluster of *self-protective*, *affiliation*, and *kin-care* intuitions to gain support for his seizure of the steel mills. He spoke of "*grave danger and obligation*" to our *boys* in Korea who would soon be *endangered* because of being "bereft of shells," by an industry that was *denying support to our team* by ". . . trying to get [for themselves] *special, preferred treatment* not available to any other industry. And they are apparently willing to stop steel production [during wartime] to get it" (pp. 420-422). Truman found popular support for temporary nationalization of the steel industry, preventing shortages of arms for fighting men, though precipitating a crisis in his leadership that was resolved by the Supreme Court in industry's favor.

Affiliation, Contamination: L.B. Johnson and Civil Rights

Lyndon Johnson (1965), though from the South, marshaled his well-tuned political skills to pass the 1964 Civil Rights Act. He was convinced that the intuitive separation and unequal treatment of the races, a fear of contamination by Blacks, was a *moral offense* that needed to be righted. He knew that the intuition of racial inequality was deeply embedded in the perspective of many Americans. He was aware of the cost to himself and to his political party of advancing such a challenge to a way of life of millions of Southerners. At the bill-signing speech he attempted to arouse and sustain support with repeated cues and narratives of *affiliation* and broad *kin-care*: "Americans of *every race and color* have worked to build a nation men are *created equal*. Yet many Americans do not enjoy those rights . . . millions are being *deprived* of those blessings . . . because of the color of their skin." Johnson

acknowledges the origins of such prejudicial treatments being “. . . deeply embedded in history and tradition and in the nature of man.” He condemns that perspective: “The *Constitution* . . . forbids it. The *principles of our freedom* forbid it. *Morality* forbids it” (pp. 842-844). With his oratory and political skills and with the stroke of a pen he challenged the Southern perspective that embodied white supremacy and racial *disgust* with the passage of the 1964 Civil Rights Act.

The oratory of Roosevelt, Truman and Johnson enjoined large segments of America through intuitive appeals of *danger* and *affiliation*, and a tirade against *contamination* to successfully lead the nation through crises of depression, war, and a chronic affront to human dignity.

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