

Climate change and the human factor: Why does not everyone realize what is happening?

Ira Brenner^{1,2}

¹Clinical Professor of Psychiatry, Sidney Kimmel Medical School of Thomas Jefferson University, Philadelphia, PA

²Training and Supervising Analyst, Psychoanalytic Center of Philadelphia

Correspondence

Ira Brenner, Clinical Professor of Psychiatry, Sidney Kimmel Medical School of Thomas Jefferson University, Philadelphia, PA; Training and Supervising Analyst, Psychoanalytic Center of Philadelphia. Email: irabrennermd@gmail.com

Abstract

The notion of standing on “solid ground” is most reassuring. However, it is a myth, because we now know that the surface of the earth is composed of tectonic plates that float and move. Similarly, the notion that our climate is stable and fixed is also a myth. We now know that we are living in a time of great flux, and as science tell us, we have a role its fate. Psychological defenses against the affects and anxieties associated with awareness of this progressive upheaval fuel the current sociopolitical debate about “climate change.” Maladaptive attitudes, rooted in ignorance, fear, superstition, and religion, will be looked at from a developmental perspective and applied to large-group psychology. Just as young children are incapable of realizing that their violent actions could actually hurt their mothers, many adults refuse to believe that their actions could actually hurt “Mother Earth.” In addition, the possible role of transmitted ancestral memory of earlier global catastrophe is also taken into consideration. As such, it may be an unrecognized factor that may complicate large-group responses to this most pressing problem.

KEYWORDS

ancestral memory, climate change, developmental model, dissociation, large-group psychology

1 | INTRODUCTION

The relationship between man and the environment has been well within the mainstream of psychoanalysis and perhaps peaked during the period of time when ego psychology was in ascendency. For example, Heinz Hartmann's very

important monograph on adaptation (Hartmann, 1939) describes how in order to adjust to what he termed the “average expectable environment” we can either change on the inside, change the outside, or under intolerable conditions, leave and find a new environment. It is, therefore, well within our purview and rather overdue for psychoanalysts to address the growing problem and impending global crisis associated with what we now refer to as “climate change.” With the help of the conceptual framework for understanding large-group psychology by Vamik Volkan and others, we can extrapolate and apply some of the models of the mind of the individual to better understand what might occurring in a society undergoing major stress. He cites about 20 features of regressed societies, such as major divisiveness or polarization, as a large-group manifestation of splitting, and persecution of minorities as externalization or projection of disowned qualities of the “in group” with the power. Other manifestations relevant here are (a) rallying blindly around the leader, (b) entitlement to do anything to maintain its identity, (c) difficulty differentiating what is beautiful from what is ugly, (d) and turning its physical environment into an amorphous gray-brown (fecal) structure (Volkan, 2002, pp. 458–459). In my own study of societal trauma, large-scale dissociative processes in the form of “knowing and not knowing,” “seeing but not believing,” and being in a “daze” can be operative also (Brenner, 2014).

With the rise in global temperature, accelerated melting of glaciers, rising sea levels, and record storms, as well as massive flooding, droughts, and wildfires, the scientific community's warnings are becoming progressively more urgent. It takes more and more psychological effort to not recognize and not accept that dire changes are taking place all around us. And even for those who do acknowledge that our climate is changing at a faster rate than any other time in recorded history, many seriously doubt the role that our species plays in this worldwide problem. Citing the planet's known cycles of massive changes that we know have occurred over the last 4 1/2 billion years, many, for example, not only doubt the correlation between rising CO₂ levels and rising temperature, they also question whether any human activity could be that great that it would have a substantial impact on Mother Nature. After all, we know about the climatic effects of such natural phenomena as sunspots, subtle changes in the earth's rotation, the mighty power of volcanos, earthquakes, and even collisions with comets and asteroids. With such planetary and celestial forces at play here, how could we puny humans be so grandiose as to think we, too, could be drivers of climate changes? Or are we in denial and resistant to becoming aware of our destructive capabilities? Or are we simply employing what the social scientists term “time discounting” (Frederick, 2002), a feature of human nature in which immediate rewards greatly offset what may occur, for better or worse, in the future. In lay terms, “a bird in the hand is worth two in the bush.”

2 | THE CHICKEN LITTLE FABLE

Looking at cultural myths and fables as psychoanalytic data about human civilization, in much the way that Bettelheim (1976) considered fairy tales, I was particularly struck by one that has been around the world for at least 2,500 years. It is known in American literature as the story of “Chicken Little.” Chicken Little panics when a leaf falls on her tail and fears that the leaf is a harbinger of disaster. She runs around wildly and exclaims “The sky is falling!” This overly distraught little bird then alarms her animal friends who get tricked by a fox and then get eaten. The chicken has thus become a “chicken,” the metaphor for one with “hysterical” fear of impending doom, which if not kept in check, could spread to others and lead to “mass hysteria.” Such a regression in large groups can lead to a breakdown of society, which is a huge problem that governments try to avoid. Such alarmists must be discredited, often through a mockery of their extreme emotionalism and apocalyptic worries. Also, their character and mental stability may be questioned in an effort to destroy their credibility, and such an ad hominem attack can obscure even a kernel of truth to their message, as they are diagnosed with the malady affectionately known as “The Chicken Little Syndrome.”

To the skeptics, cynics, and doubters of the seriousness of our current situation, Al Gore became the personification of “Chicken Little” after his 2006 documentary, “An Inconvenient Truth.” In this Academy Award winning film,

he warned of the dangers of global warming and how we humans are contributing to it. Needless to say, it was groundbreaking and controversial. Since then, we have seen shocking evidence of ice sheets and glaciers melting at an accelerated pace. If unchecked, we face a rise in ocean levels that would leave most of our coastal cities submerged during our grandchildren's lifetime. Already, we are seeing frequent superstorms that inundate and destroy coastal regions, which have become the "new normal."

We are living through a major global extinction event in which record numbers of species are disappearing forever as we speak, whereas the human population continues to grow. It quadrupled in the 20th century and is about 7.8 billion currently. Due to the weather-related destruction of agriculturally viable land, as well as war, massive numbers of those seeking asylum in the EU have continued to grow causing more social unrest with no end in sight. Yet no less than 10 opinion polls have concluded that only about 50% of Americans actually believe that what is happening has anything to do with human activity.

What is going on here? What resistances are at play here? How and why is it that in the face of hard data from some of the best trained scientists in the world, the human mind is so capable of ignorance, denial, self-deception, manipulation, and susceptibility to primitive thinking? In this presentation, I will briefly explore this problem from the outside in, first looking macroscopically at societal, political, economic, religious, and anthropological contributions to large-group misperceptions; I will then consider the intrapsychic, unconscious, and developmental factors. My hypothesis is that there is a collusion between psychological and sociological factors superimposed upon a residue of traumatic memory dating back to end of the last ice age.

3 | SOCIETAL SUPPRESSION AND DISCREDITING OF SCIENTIFIC INFORMATION

It is now known that the tobacco industry actively suppressed the data about the health hazards of smoking. It undermined and challenged this link through a disinformation campaign intended to cast doubt on these incontrovertible findings. This campaign was motivated solely by societally sanctioned, corporate economic factors, that is, to increase the bottom line of profits for its shareholders. The 2014 documentary film, "The Merchants of Doubt," based on the 2010 book by the same name, convincingly reveals how a public relations firm, hired by the manufacturers, sought out corruptible scientists to compromise their integrity for money. They mounted a highly visible and effective campaign, appearing to be neutral and hiding their true connection to the industry. In so doing, they challenged valid data in order to cause confusion and create doubt in the public eye. This deception played into the peoples' ignorance, denial, and romanticizing of smoking, whereas privately, they were quite aware of the cancer risk.

This strategy was so successful that it became a prototype for other campaigns of deception such as Holocaust denial. It is currently being employed by oil companies and other related industries to play up their ecological mindedness and play down the role of increased CO₂ levels and other emissions in warming the atmosphere. As a result, the tendency toward further polarization in our society is callously encouraged and exploited, as even well-educated people are made to doubt the experts. This divisiveness is likely what we are seeing in the opinion polls mentioned earlier.

Deliberate efforts to conceal or undermine scientific discoveries are a not modern phenomenon, as per the famous 16th century story of Galileo, the "father of observational astronomy," who was put under house arrest for life by the Catholic Church. His support of the sun, not the earth, as the center of the known universe, heliocentrism, was very threatening to prevailing religious belief. Unless he recanted and begged for forgiveness, then he was to be sentenced for life as a dangerous heretic.

Although the suppression of scientific discovery to preserve religious beliefs is most likely to occur in a theocracy, a peculiar story about Winston Churchill suggests that this may occur in more enlightened governments also. Reportedly, a very credible UFO sighting took place during WWII by a seasoned RAF pilot. Allegedly, Churchill was so

impressed that he classified the report top secret, fearing that this sighting would have spawned great doubt about the existence of God. This incident occurred at a time when faith was about all the British had left during the height of the Blitzkreig. This relentless nightly bombing of London was taking its toll on morale, so it was no time to shake up their belief that the Creator who would help them triumph over the evil Nazi regime ... unless of course it is all part of His greater plan. And, if that were the case, then there is nothing that man can do about it, except pray.

4 | RELIGION—THE END OF DAYS

All the major religions, including Hinduism and Buddhism, subscribe to a belief in the apocalypse, or end of days, a series of catastrophic disasters that will end life as we know it and then be replaced a new world order. Even the dead may be brought back to life. Although the details vary, there are curious similarities among these traditions that are obvious to students of comparative religions. There is often a prophecy of a Great War, like the “Armageddon,” a war to end all wars. And, most relevant here, there is to be a major global upheaval with the worst ever succession of natural disasters—volcanoes, earthquakes, “fire and brimstone,” hurricanes, plagues, widespread famine, and, of course, floods. Many true believers and fundamentalists are convinced that we are currently at that point in time, a conclusion made due to current world conditions and to calculations derived by mystical interpretations of their sacred texts. The Jehovah's Witnesses are a case in point.

That such a cataclysmic end of the world will occur is preordained, and only the most faithful will be spared or rewarded. It is useless to fight the inevitable; the only to do is to practice ones' religion to the ever most exacting standards. Ecological mindedness, like reducing one's carbon footprint or supporting the Paris Accords, would seem to be useless exercise of man's hubris in the face of God's will.

5 | ANTHROPOLOGY—REVIVAL OF ANCESTRAL MEMORY?

Our species, *Homo sapiens*, has been around for at least 300,000 years, and new fossil discoveries continue to push back our shadowy beginnings, as well as complicate our evolutionary tree. Our ancestors, the sentient anthropoid apes, have populated our planet for millions of years and have lived through a multitude of climatic changes, such as killer volcanoes that have darkened the skies for years, meteors that have crashed into the earth with the force of many atomic bombs, earthquakes, land masses appearing and disappearing due to oceans rising hundreds of feet, and ice build ups a mile or more deep, covering our continents. Such events have continued to occur until just beyond recorded history.

A mere 11,000 or 12,000 years ago, the last Ice Age ended rather abruptly, relatively speaking, ushering in our current climate conditions. A recent study (Wolbach et al., 2018) offers impressive geological evidence that what delayed this warming by a millennium was a collision with a comet of such a destructive nature that 10% of the earth's surface was consumed by fire. It is calculated to have occurred about 12,800 years ago. The darkening of the sky resulted in a “winter,” akin the dreaded nuclear winter experts predict, in which global temperatures dropped, glaciers advanced again, plants and animals died off, and the human population was decimated. Known as the Younger Dryas cool episode, the impact of this 62 mile in diameter comet caused an “extraordinary biomass-burning episode,” which our ancestors witnessed. Following some recovery, the warming resumed, and since then, that is, 9,000 or 10,000 BC, to the present, human civilization, as we know it, came into being. The domestication of wild animals and plants was an essential step that enabled the shift from hunter/gatherer societies to farming and agriculture, which then enabled the development of permanent settlements and cities, which then grew into empires. Cave painting gave way to more sophisticated artwork, and the oral tradition was supplanted by the written word. One of the most enduring stories was transmitted in both forms over many generations in many cultures throughout the world. It was of a great flood that washed over the land and destroyed everything in its wake except what was

loaded into a huge boat. After the flood waters receded, the survivors left their floating shelter and repopulated the land.

The most famous of such stories in the Western world is that of Noah and his Ark, in the book of Genesis in the Hebrew Bible, that is, the Old Testament. Paleohistorians of the Ice Age postulate that our ancestors who survived the comet impact, the subsequent melting of the glaciers, and the massive flooding due to the meltwaters were severely traumatized for many generations. In an attempt to master this overwhelming, ongoing life-threatening environment, they, like us today, repeated the stories of these traumatic events in their narratives. Eventually, these stories became embedded in their cultural history and oral tradition that then took on mythical, mystical, and ultimately religious significance. They were incorporated into their sacred texts, which were written only several thousand years afterward. If this theory is so, then there has been intergenerational transmission of trauma, which has become attenuated over the millennia but which has been reinforced by the written stories taught in religious schools and houses of worship, interestingly enough.

Freud dabbled in the murky realm of phylogenetic, ancestral memory, no doubt inspired at the time by the recent discoveries of Charles Darwin. However, this line of thinking was never fully embraced or incorporated into main stream psychoanalytic thinking. Do we need to come full circle in order to more deeply appreciate the possibility that part of the magnitude of our underlying anxieties about climate change have to do with the reactivation of an ancestral traumatic memory? Might we be in the throes of an historical compulsion to repeat?

6 | DEVELOPMENTAL FACTORS

Freud (1930) did acknowledge, in "Civilization and its Discontents," that our lives are constantly threatened by three factors—the deterioration of the body, man's inhumanity to his fellow man, and the overwhelming forces of nature that could easily wipe us out. "Mother Nature" is infinitely more powerful than we are. Much of our culture and religious practices have been organized around trying to understand, predict, thrive upon, protect ourselves from, negotiate with, and pay homage to these elements. Is it any surprise, then, that when we personify the natural world, it becomes an all-powerful woman with the capability to provide and nurture, as well as destroy? Such a woman is a mother, and from a developmental perspective would be a "preoedipal mother." She has the power over the welfare, and indeed, the life and death of her infant/toddler. In this dyadic world, the role of the "father" is more inferred than absolute, as he would be unable to save the child from the cumulative trauma (Khan, 1963) caused by the less than "good enough mother." As a result, the child is initially at her mercy and only gradually realizes that as he grows, he gets stronger. He becomes capable of hurting or damaging the mother. Biting her nipple while nursing, after the teeth come in at about a year of age is perhaps one of the earliest of such experiences. Banging his head into her face and flailing around kicking comes later. But at such an early age, while the child may sense that the mother feels some pain, surely he has neither the strength to truly cause lasting damage nor the cognitive maturity to imagine being able to do so. The mother is omnipotent; ideally, she feeds him, keeps him warm, cleans up his messes, and is always there when needed.

So, if mankind has a primitive, preoedipal maternal transference to the environment, he might litter and not worry about who will pick up after him. Mother Nature would take care of it. He might believe that he could start a forest fire and do some damage but it would be limited and the forest would grow back in a short period of time. Mother Nature is resilient enough to have the power to restore the trees, which might even grow back thicker than before. In that vein, he might also believe that the oceans provide an unlimited source of marine life for his voracious appetite and even be so grandiose as to be convinced that the world and all its animals were created just for him. Then he would be entitled to do whatever he wanted and get away with it.

He might divert rivers, drain fragile wetlands, build dams, flatten mountains, and extract precious metals or oil from the earth leaving it deeply scarred, and feel entirely justified in doing so. From this narcissistic perspective, the world is so huge and limitless that such activities would be minor and cause cosmetic problems at the worst. The idea

that man's waste products could be toxic and truly cause "Mother" a lasting problem is inconceivable because she is supposed to be there to admire his productions and be the one to clean him up afterwards. It is only the latency age child who takes pride in cleaning up after himself, follows rules of fair play, and realizes a cause/effect relationship of his behavior.

7 | DISCUSSION

The influences briefly outlined here support my contention that the denial, anxiety, and maladaptive attitudes associated with the human impact upon climate change are multiply determined. Initially, deep annihilation anxiety over the fact that life on this planet could be drastically affected by forces out of our control may actually have a basis in traces of ancestral traumatic memory from the end of the last age, about 11,000–12,000 years ago. In individual therapy, the failure to recognize the role of intergenerational transmission of trauma in symptom formation and the persistence of pathological defenses and repetition compulsion can result in enormous resistances and treatment failure. Perhaps, on a societal level, the same challenges apply.

During that fateful epoch, major reconfiguring of the world's land mass occurred, like the disappearance of the longstanding ice/land bridge connecting Asia to North America. Known as Beringia and the site of today's Bering Strait, it melted, submerged, and disappeared, separating the two continents. Until then, it enabled migration of wild-life and people, which makes it the likely route of some of our earliest known human settlers, the so-called Clovis people. They may have been ancestors of today's Native Americans, some of whose creation myths seem to allude to this journey.

Perhaps a thousand years later, the enormous body of land connecting Great Britain to the European continent disappeared under the rising water levels in the North Sea. New underwater discoveries of "Doggerland" have confirmed this assertion, which also was alluded to in ancient fables. And, as mentioned, the rapid rise of agriculture and large civilizations were developing during this tumultuous time. Considering the angst we currently feel over the erosion of coastline, living through the disappearance of a small continent would be rather extraordinary.

The earliest known written literature is the ancient Mesopotamian epic poem of Gilgamesh, dates back to over 4,000 years ago. Not surprisingly, it features a story of a great flood. It predates Noah's story by at least 500 years and is thought to be chronicling the same event, which occurred at least a thousand of years earlier. In fact, there is geologic evidence of massive flooding of the Middle East due to the rising waters of the Mediterranean flowing into the Black Sea around 5,600 BC or earlier (Ryan & Pitman, 1998).

According to climate research, there have been three periods of rapid melting of ice resulting in dramatic rise in sea levels since the end of the last ice age. The most recent, Meltwater pulse, 1C, occurred "only" 8,000 years ago, or 6,000 BC, when the levels further increased over 20 ft in 40 years. It evidently made such an enormous impression on our ancestors that there are reportedly over 500 ancient flood stories incorporated into creation myths from cultures all over the world. Is it any wonder that we needed to create a counter myth, the story of "Chicken Little" on whom we could disown, project, and devalue our deepest fears of a traumatic recurrence of the end of the world?

8 | CONCLUSION

To consider that, on top of this prehistory, we might be contributing to our own demise through the waste products of our attempted mastery over the elements is so contradictory to many that it has been vigorously defended against. Such defenses seen in large groups are splitting, externalization and projection, suppression, obsessional doubting, denial, and dissociation. The uneducated and the skeptics derisively mock the "alarmists" and scoff at the fact the global warming affecting the jet stream could be behind such monstrous winter storms as "bomb cyclones." It seems counterintuitive that something warm could cause something cold. Just as it requires understanding and faith in the medical system for someone to undergo surgery, chemotherapy, and radiation for a silent cancer that could be fatal,

so too, does it require trust in the scientific community about our climate crisis. To accept such ideas requires basic trust in benign authority figures.

The problems in recognizing and accepting our perilous situation go beyond climate change and obscure an even more imminent threat, nuclear war. The extensively studied risk of unintended global catastrophe due to nuclear winter has been omitted from our current geopolitical discourse. A reversion to pre-1950 thinking, the idea of limited nuclear war is flawed and exceedingly dangerous. It is as though that after decades of living under this new danger, we have become numb, inured, and falsely assured that it could never happen because it has not happened yet. However, our ancestors were nearly wiped out by catastrophic impacts and massive climatic events. Are we truly immune now or merely in a state of disbelief?

Human nature being as it is, greed, narcissistic entitlement, political ambition, deliberate disinformation and inducing obsessional doubt, religious fatalism, and an infantile attitude toward nature may solidify into a formidable resistance to a responsible, mature attitude toward climate change.

If indeed there is such a synergistic effect of sociological, psychological, and anthropological factors, then this is truly a job for the supermen and superwomen from the world of Applied Psychoanalysis. We must find a way to contain societal anxiety, elevate awareness, influence social policy, and set examples through our own living. If we psychoanalysts truly know more about human nature than any other experts, then do not we have a responsibility to learn as much as we can about this existential threat, to speak up, and to get involved? We should not be hindered by the misapplication of our theoretical models, such as technical neutrality, which might keep us on the sidelines, confine us to the consulting room, and prevent us from making a difference in the world.

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