## DA

#### US-Sino relations high now

Forbes, 9/20/13

(9/20/13, “Biden Hails Importance Of U.S.-China Relationship,” Online: <http://www.forbes.com/sites/kenrapoza/2013/09/20/biden-hails-importance-of-u-s-china-relationship/>, Accessed: 9/26/13 FG)

Washington might love to hate China, but the U.S. relationship with the No. 2 economy is fast becoming our most important. Vice President Joe Biden basically said so on Friday when he met with Chinese Foreign Minister Wang Yi in the White House. Biden said he believed China’s development was in the interests not only of the United States, but for the rest of the whole world. This is not a shocker. With the exception of maybe a few countries in Western Europe and — perhaps — Japan, Biden’s comments are a no-brainer. Brazil loves China. All of Africa loves China. Russia loves China. Okay, maybe India is not that big a fan… Biden said he was optimistic about strengthening ties between the two countries, adding that President Barack Obama believed the success of humankind in the 21st century depends on how the U.S. and China handle global issues. Of course, the U.S. and China don’t see eye to eye on a number of important matters. Global warming is one. Both are the world’s top two emitters of CO2 into the atmosphere. China burns coal. The U.S. burns coal. But the U.S. won’t hop on board global initiatives to reduce emissions due to costs, saying that it makes them less competitive with the Chinese, who aren’t doing anything. Ironically, all of our multinationals are in China, so that makes us less competitive with ourselves? Then there’s Syria. China is not supportive of Washington’s military antics in the Middle East in general. On economic matters, hardly an election goes by without some American politician blaming China for our weak job market. It’s almost as if they forgot about the 2008 financial crisis, started by American banks and ignored by top level American policy makers. Weird, I know… Wang told reporters in Washington that one of the major goals of his visit was “sending out a signal that the two countries are willing to advance the new model of major-country relationship through concrete actions and practical cooperation,” Xinhua reported Friday. Wang also met with Secretary of State John Kerry, who later reportedly told DC journalists that the new model of China-U.S. relations was based on practical cooperation. He said the two needed to “avoid falling into a trap, of seeing one another as strategic rivals.”

#### US engagement in Latin America crushes relations – causes crowd out

Ellis, 12

[R. Evan, professor of national security studies at the Center for Hemispheric Defense Studies, May 2012, Center for Hemispheric Defense Studies, “The United States, Latin America and China: A ‘Triangular Relationship’?”, http://www.thedialogue.org/PublicationFiles/IAD8661\_China\_Triangular0424v2e-may.pdf, Accessed 7/2/13, ML]

At the political level, US engagement with Latin American countries has impacted the ability of the PRC to develop military and other ties in the region. Although journalistic and academic accounts often suggest that the 19th century Monroe Doctrine continues to be pursued by contemporary US policymakers, with a presumed desire to “keep China out” of the region,26 official US policy has repeatedly met Chinese initiatives in the hemisphere with a cautiously welcoming tone.27 Nonetheless, Latin America’s own leadership has responded to Chinese initiatives with a view of how engagement with China could damage its relationship with the United States. Colombia’s close relationship with the United States, for example, made the military leadership of the country reluctant to procure major military items from the PRC.28 The same logic has also applied to countries such as Venezuela, Ecuador and Bolivia, for whom embracing the PRC politically and economically signaled displeasure with the United States. The degree to which a “bad” relationship with the United States has propelled a “positive” relationship with China has increasingly gone beyond symbolism. The desire of Venezuelan President Hugo Chávez to diversify away from Venezuelan dependence on the United States as the nation’s primary oil export market, for example, opened the door for massive loan-backed Chinese construction projects, the purchase of Chinese commercial goods and greatly expanded participation by Chinese oil companies.29 US refusal to sell F-16 fighter aircraft and components to Venezuela in 2006 prompted Venezuela to engage with China, and other countries, to procure military hardware. Similarly, Bolivia purchased Chinese K-8s after the United States blocked it from acquiring a comparable aircraft from the Czech Republic.

#### Relations are key to solve a US-China war

Lawrence, 6/14/13

[Susan V. Specialist in Asian Affairs, June 14, Congressional Research Service U.S.-China Relations: Policy Issues http://www.fas.org/sgp/crs/row/R41108.pdf RC]

Hanging over the relationship is the larger question of whether, as China grows in economic and military power, the United States and China can manage their relationship in such a way as to avoid debilitating rivalry and conflict that have accompanied the rise of new powers in previous eras. On a visit to the United States in February 2012, Xi Jinping, who became China’s top leader later in the year, proposed that the two countries establish a “new type of great power relationship” that explicitly seeks to avoid conflict. President Obama has accepted the challenge. He described a June 7-8, 2013, summit with Xi in Rancho Mirage, CA, as an opportunity for conversations about “how we can forge a new model of cooperation between countries based on mutual interest and mutual respect.”1 Some principles for this “new model” U.S.-China relationship are already in place. The Obama Administration has repeatedly assured China that it “welcomes a strong, prosperous and successful China that plays a greater role in world affairs,” and China has stated that it “welcomes the United States as an Asia-Pacific nation that contributes to peace, stability, and prosperity in the region.”2 But the “new model” remains a work in progress, with many observers in both Washington and Beijing noting deep mistrust on both sides of the U.S.-China relationship. (See “Forging a “New Model of Cooperation” with China,” below.) Xi and his Chinese leadership colleagues assumed their Communist Party posts at the Party’s 18th Congress in November 2012, and added other posts, in Xi’s case the state presidency, at the annual meeting of the National People’s Congress in March 2013. In their early months in office, China’s new leaders have signaled a strong desire to strengthen the U.S.-China relationship. The Obama Administration credits them with being willing to go beyond their predecessors on several issues of concern to the United States. China has shown somewhat greater willingness to pressure North Korea over its nuclear program. A trip to China in April 2013 by the Chairman of the Joint Chiefs of Staff, General Martin Dempsey, elicited some of the most unambiguous language yet from China’s People’s Liberation Army signaling acceptance of the United States military presence in Asia.3 The Obama-Xi summit in June 2013 produced an agreement for the United States and China to work together to combat global climate change by reducing the consumption and production of hydrofluorocarbons (HFCs),4 and Secretary of State John Kerry’s April 2013 visit to China produced an unprecedented stand-alone joint statement on climate change.5 China has also agreed to the establishment of a high-level working group on cybersecurity, although the two presidents appeared to make little progress on the issue in their June 2013 meetings. The United States charges that cyber intrusions into U.S. government and private networks “appear to be attributable directly to the Chinese government and military.”

#### That escalates and causes nuclear winter– improving relations is the only solution

Wittner 12

[Dr. Lawrence Wittner, Professor of History emeritus at SUNY/Albany,11/10/12, Huffington Post http://www.huffingtonpost.com/lawrence-wittner/nuclear-war-china\_b\_1116556.html)]

While nuclear weapons exist, there remains a danger that they will be used. After all, for centuries international conflicts have led to wars, with nations employing their deadliest weapons. The current deterioration of U.S. relations with China might end up providing us with yet another example of this phenomenon. The gathering tension between the United States and China is clear enough. Disturbed by China's growing economic and military strength, the U.S. government recently challenged China's claims in the South China Sea, increased the U.S. military presence in Australia, and deepened U.S. military ties with other nations in the Pacific region. According to Secretary of State Hillary Clinton, the United States was "asserting our own position as a Pacific power." But need this lead to nuclear war? Not necessarily. And yet, there are signs that it could. After all, both the United States and China possess large numbers of nuclear weapons. The U.S. government threatened to attack China with nuclear weapons during the Korean War and, later, during their conflict over the future of China's offshore islands, Quemoy and Matsu. In the midst of the latter confrontation, President Dwight Eisenhower declared publicly, and chillingly, that U.S. nuclear weapons would "be used just exactly as you would use a bullet or anything else." Of course, China didn't have nuclear weapons then. Now that it does, perhaps the behavior of national leaders will be more temperate. But the loose nuclear threats of U.S. and Soviet government officials during the Cold War, when both nations had vast nuclear arsenals, should convince us that, even as the military ante is raised, nuclear saber-rattling persists. Some pundits argue that nuclear weapons prevent wars between nuclear-armed nations; and, admittedly, there haven't been very many -- at least not yet. But the Kargil War of 1999, between nuclear-armed India and nuclear-armed Pakistan, should convince us that such wars can occur. Indeed, in that case, the conflict almost slipped into a nuclear war. Pakistan's foreign secretary threatened that, if the war escalated, his country felt free to use "any weapon" in its arsenal. During the conflict, Pakistan did move nuclear weapons toward its border, while India, it is claimed, readied its own nuclear missiles for an attack on Pakistan. At the least, though, don't nuclear weapons deter a nuclear attack? Do they? Obviously, NATO leaders didn't feel deterred, for, throughout the Cold War, NATO's strategy was to respond to a Soviet conventional military attack on Western Europe by launching a Western nuclear attack on the nuclear-armed Soviet Union. Furthermore, if U.S. government officials really believed that nuclear deterrence worked, they would not have resorted to championing "Star Wars" and its modern variant, national missile defense. Why are these vastly expensive -- and probably unworkable -- military defense systems needed if other nuclear powers are deterred from attacking by U.S. nuclear might? Of course, the bottom line for those Americans convinced that nuclear weapons safeguard them from a Chinese nuclear attack might be that the U.S. nuclear arsenal is far greater than its Chinese counterpart. Today, it is estimated that the U.S. government possesses over 5,000 nuclear warheads, while the Chinese government has a total inventory of roughly 300. Moreover, only about 40 of these Chinese nuclear weapons can reach the United States. Surely the United States would "win" any nuclear war with China. But what would that "victory" entail? An attack with these Chinese nuclear weapons would immediately slaughter at least 10 million Americans in a great storm of blast and fire, while leaving many more dying horribly of sickness and radiation poisoning. The Chinese death toll in a nuclear war would be far higher. Both nations would be reduced to smoldering, radioactive wastelands. Also, radioactive debris sent aloft by the nuclear explosions would blot out the sun and bring on a "nuclear winter" around the globe -- destroying agriculture, creating worldwide famine, and generating chaos and destruction. Moreover, in another decade the extent of this catastrophe would be far worse. The Chinese government is currently expanding its nuclear arsenal, and by the year 2020 it is expected to more than double its number of nuclear weapons that can hit the United States. The U.S. government, in turn, has [plans](http://www.guardian.co.uk/world/2011/oct/30/nuclear-powers-weapons-spending-report%22%20%5Ct%20%22_hplink) to spend hundreds of billions of dollars "modernizing" its nuclear weapons and nuclear production facilities over the next decade. To avert the enormous disaster of a U.S.-China nuclear war, there are two obvious actions that can be taken. The first is to get rid of nuclear weapons, as the nuclear powers have agreed to do but thus far have resisted doing. The second, conducted while the nuclear disarmament process is occurring, is to improve U.S.-China relations. If the American and Chinese people are interested in ensuring their survival and that of the world, they should be working to encourage these policies.

## CP

#### Text: The People’s Republic of China should substantially increase its renewable energy economic engagement with Mexico.

#### CP solves 100% of case—China is poised to become a global leader in renewables—we access the strongest internal link to global modeling

Martinot and Junfeng 13

Eric Martinot, WorldWatch senior fellow, Li Junfeng, Vice Chair of China’s Renewable Energy Society in Beijing, China on Pace to Become Global Leader in Renewable Energy, cites “Powering China’s Development: The Role of Renewable Energy” (2007) http://www.worldwatch.org/node/5497

Washington, D.C. – China will likely achieve—and may even exceed—its target to obtain 15 percent of its energy from renewables by 2020, according to a new report released by the Worldwatch Institute. If China’s commitment to diversifying its energy supply and becoming a global leader in renewables manufacturing persists, renewable energy could provide over 30 percent of the nation’s energy by 2050.¶ That is the major conclusion of Powering China’s Development: The Role of Renewable Energy, written by Beijing-based researcher Eric Martinot, a Worldwatch senior fellow, and Li Junfeng, Vice Chair of China’s Renewable Energy Society in Beijing. “A combination of policy leadership and entrepreneurial savvy is leading to spectacular growth in renewable energy, increasing its share of the market for electricity, heating, and transport fuels,” said Martinot. “China is poised to become a leader in renewables manufacturing, which will have global implications for the future of the technology.”¶ More than $50 billion was invested in renewable energy worldwide in 2006, and China is expected to invest over $10 billion in new renewables capacity in 2007, second only to Germany. Wind and solar energy are expanding particularly rapidly in China, with production of wind turbines and solar cells both doubling in 2006. China is poised to pass world solar and wind manufacturing leaders in Europe, Japan, and North America in the next three years, and it already dominates the markets for solar hot water and small hydropower.¶ “Our ingenuity and manufacturing prowess are being harnessed to provide leadership to the world on renewables,” said Li Junfeng. “China’s position provides a strong example for other developing countries, while helping to drive down renewable energy costs to become competitive with fossil fuels for all countries the world over.”¶ The report discusses China’s advances in wind power, solar photovoltaics (PV), solar heating, biomass power, and biofuels. Impressive gains in these sectors include:¶ Wind power is the fastest growing power-generation technology in China, with existing capacity doubling during 2006 alone. By 2007, China was home to four major Chinese manufacturers of wind turbines, another six foreign subsidiary manufacturers, and more than 40 firms developing prototypes and aspiring to produce turbines commercially.¶ Solar PV production capacity in China jumped from 350 megawatts (MW) in 2005 to over 1,000 MW in 2006, with 1,500 MW expected in 2007. With high-profile initial public stock offerings for several Chinese companies, some valued in the billions of dollars, global attention has been riveted to China’s solar PV industry. Growth in solar hot water systems has been rapid, rising from 35 million square meters of installed capacity in 2000 to 100 million square meters by the end of 2006. China added 20 million square meters of new capacity in 2006 alone. Chinese companies now produce the solar heaters—an increasingly desirable consumer appliance—at costs one-fifth to one-eighth those found in the United States and Europe.¶ Wastes from agricultural facilities in China could yield 80 billion cubic meters of biogas annually, well above the government’s target of 44 billion cubic meters annually by 2020. In 2006, China had about 2 gigawatts (GW) of biomass power generation capacity, mostly from combined heat-and-power (CHP) plants with sugarcane waste as the primary feedstock.¶ Total ethanol production in China in 2006 was about 1 billion liters, compared with global production of 37 billion liters, primarily in the United States and Brazil. Higher corn prices and concern about competition with food supplies led to a moratorium on corn-based ethanol, leaving sorghum, cassava, and sugar cane as the current feedstocks of choice. Prospects for significant ethanol expansion in China rest primarily on the future of cellulose-to-ethanol technology, the viability of which experts expect will be proven within the next 10 years.¶ With its booming economy and rapidly expanding energy consumption—particularly its use of coal and oil—it is imperative for China to diversify its energy supplies. The country has suffered frequent power shortages due to its breakneck economic development. China’s urban population, which uses nearly three times more electricity and commercial energy per person than rural residents do, increased from 375 million in 1999 to 577 million in 2006. The country’s automobile fleet also continues to balloon, with an estimated 1,000 new cars appearing on Beijing’s streets every day.¶ Coal now provides 80 percent of China’s electricity, and national electricity demand doubled between 2000 and 2006. As a result, China’s economic development, environment, and public health are severely affected: for example, only 1 percent of urban Chinese breathe air that meets European air quality standards. Coal generation also leads to the build up of toxic metals, such as mercury, in water supplies and on agricultural fields throughout China.¶ China’s carbon dioxide emissions are on the rise and are expected to exceed total U.S. carbon dioxide emissions shortly, although Chinese per-capita emissions remain about one-sixth those of the United States. Nuclear power provides just 7 GW of China’s electric capacity, and even with the additional plants planned in the next few decades, it is unlikely to provide more than 5 percent of the country’s electricity.¶ Worldwatch President Christopher Flavin praised China’s growing commitment to renewables: “The combination of ambitious targets supported by strong government policies and entrepreneurial acumen may soon allow China’s renewable energy sector to ’leapfrog’ many developed nations.”

## T

#### A. Interpretation- In the US context, economic engagement must include conditional carrots and sticks.

Helweg, Professor of Public Policy @ SMU, 2000 (Diana, Economic Strategy and National Security, p. 145)

Secretary of State Madeline K. Albright has argued that a U.S. policy of economic engagement with a country does not mean endorsement of its regime. In fact, the U.S. version of engagement is different from countries, such as France and Japan, which often practice a policy of unlimited economic engagement based on the rationale that unfettered trade and investment best promotes democratic values for the targeted nation, and financial success for themselves. By contrast, U.S.-"style" engagement must be coupled with a range of policy tools that includes the targeted use of economic restrictions. In other words, it is a variation of the traditional carrot and stick approach rather than one or the other.

#### B. Violation- their engagement is not conditional, they offer it without asking anything in return

#### C. Prefer our interpretation

#### 1. Limits- they allow for an infinite number of possible ways to engage that would never happen in real life so it puts an unfair burden on the neg to prepare.

#### 2. Education- most real world, we should learn about ways the USFG engages in the real world. This is the best internal link to education because it gives us portable skills.

#### Voting issue for fairness and education.

## T

#### A. Interpretation – “economic engagement” means the aff must be an exclusively economic action – it cannot encompass broader forms of engagement

Jakstaite, 10 - Doctoral Candidate Vytautas Magnus University Faculty of Political Sciences and Diplomacy (Lithuania) (Gerda, “CONTAINMENT AND ENGAGEMENT AS MIDDLE-RANGE THEORIES” BALTIC JOURNAL OF LAW & POLITICS VOLUME 3, NUMBER 2 (2010), DOI: 10.2478/v10076-010-0015-7)

The approach to engagement as economic engagement focuses exclusively on economic instruments of foreign policy with the main national interest being security. Economic engagement is a policy of the conscious development of economic relations with the adversary in order to change the target state‟s behaviour and to improve bilateral relations.94 Economic engagement is academically wielded in several respects. It recommends that the state engage the target country in the international community (with the there existing rules) and modify the target state‟s run foreign policy, thus preventing the emergence of a potential enemy.95 Thus, this strategy aims to ensure safety in particular, whereas economic benefit is not a priority objective. Objectives of economic engagement indicate that this form of engagement is designed for relations with problematic countries – those that pose a potential danger to national security of a state that implements economic engagement. Professor of the University of California Paul Papayoanou and University of Maryland professor Scott Kastner say that economic engagement should be used in relations with the emerging powers: countries which accumulate more and more power, and attempt a new division of power in the international system – i.e., pose a serious challenge for the status quo in the international system (the latter theorists have focused specifically on China-US relations). These theorists also claim that economic engagement is recommended in relations with emerging powers whose regimes are not democratic – that is, against such players in the international system with which it is difficult to agree on foreign policy by other means.96 Meanwhile, other supporters of economic engagement (for example, professor of the University of California Miles Kahler) are not as categorical and do not exclude the possibility to realize economic engagement in relations with democratic regimes.97 Proponents of economic engagement believe that the economy may be one factor which leads to closer relations and cooperation (a more peaceful foreign policy and the expected pledge to cooperate) between hostile countries – closer economic ties will develop the target state‟s dependence on economic engagement implementing state for which such relations will also be cost-effective (i.e., the mutual dependence). However, there are some important conditions for the economic factor in engagement to be effective and bring the desired results. P. Papayoanou and S. Kastner note that economic engagement gives the most positive results when initial economic relations with the target state is minimal and when the target state‟s political forces are interested in development of international economic relations. Whether economic relations will encourage the target state to develop more peaceful foreign policy and willingness to cooperate will depend on the extent to which the target state‟s forces with economic interests are influential in internal political structure. If the target country‟s dominant political coalition includes the leaders or groups interested in the development of international economic relations, economic ties between the development would bring the desired results. Academics note that in non-democratic countries in particular leaders often have an interest to pursue economic cooperation with the powerful economic partners because that would help them maintain a dominant position in their own country.98 Proponents of economic engagement do not provide a detailed description of the means of this form of engagement, but identify a number of possible variants of engagement: conditional economic engagement, using the restrictions caused by economic dependency and unconditional economic engagement by exploiting economic dependency caused by the flow. Conditional economic engagement, sometimes called linkage or economic carrots engagement, could be described as conflicting with economic sanctions. A state that implements this form of engagement instead of menacing to use sanctions for not changing policy course promises for a target state to provide more economic benefits in return for the desired political change. Thus, in this case economic ties are developed depending on changes in the target state‟s behaviour.99 Unconditional economic engagement is more moderate form of engagement. Engagement applying state while developing economic relations with an adversary hopes that the resulting economic dependence over time will change foreign policy course of the target state and reduce the likelihood of armed conflict. Theorists assume that economic dependence may act as a restriction of target state‟s foreign policy or as transforming factor that changes target state‟s foreign policy objectives.100 Thus, economic engagement focuses solely on economic measures (although theorists do not give a more detailed description), on strategically important actors of the international arena and includes other types of engagement, such as the conditional-unconditional economic engagement.

#### B. Violation: Energy is non-economic engagement

Australian Government, 11 (“The White Paper and Australia’s Strategic Relationship with China”, 9/28

<http://asiancentury.dpmc.gov.au/sites/default/files/public-submissions/nd.doc>

Australia risks losing a healthy relationship with Asia due to overdependence on trade relations and shortcomings of soft power. As trade and economic ties continue to grow between Australia and China, non-economic bilateral relations must be improved in order for general engagement to remain stable. To keep pace with the Asian Century, Australia must strive to find greater common ground with China outside of trade and commerce. The White Paper should take into consideration issues of non-economic relations in order to fully address Australia’s long term relationship with China. Some possible considerations for the White Paper to take into account in building a strategy for improving non-economic engagement with China:  Increased frequency of diplomatic visits and high-level visits; building a policy for minimum frequency and level of such diplomatic engagement  Increasing volume and breadth of non-diplomatic high-level exchanges such as academic conferences, exchange trips between sister agencies, and two-way exchanges between schools by dramatically increasing government funding or subsidization of such engagement  Encouraging bilateral cooperation and partnerships between non-economically driven organisations such as public sector agencies and think tanks for the purpose of fostering mutual investments between China and Australia where more than trade or profit is in question  Encouraging cultural literacy in the Australian population through people-to-people exchange, tourism, and language training; in particular encouraging Mandarin study for non-heritage students from an early age  Increasing funding for China-Australia partnerships on development in science, math, energy, environment and technology; mitigating the risk and impact of China’s capabilities surpassing those of Australia in the near future  Cultivating soft power through aid funding and development projects

#### C. Voting issue –

#### 1. Limits – they explode the topic – blurring the lines between economic and other forms of engagement makes any positive interaction with another country topical. It’s impossible to predict or prepare

#### 2. Ground – the economic limit is vital to critiques of economics, trade disads, and non-economic counterplans

## K

#### Desire creates the illusion of the self and the suffering that defines the human condition. Our only capacity is thus to affirm the extermination of this desire in the face of perpetual death and an impermanent reality

Dollimore, 98’ (Jonathan Dollimore 1998 (Death, Desire And Loss In Western Culture, P 54-56.)

Siddhartha Gautama (560-477 BC) was a prince who, because of his high privilege, encountered suffering and death relatively late in life. Legend tells us that when he did eventually encounter them the trauma was the greater, and changed his life: he became Buddha, the Enlightened One. In the religion he founded, life is experienced as a permanent intrinsic unsatisfactoriness manifested as suffering (dukkha) and pain: birth is painful, old age is painful, sickness is painful, death is painful, sorrow, lamentation, dejection, and despair are painful. Contact with unpleasant things is painful, not getting what one wishes is painful. In short the five groups of grasping [the elements, skandbasy which make up a person] are painful. ('Sermon at Benares', in Burtt, p. 30) Everything about life involves suffering and dissatisfaction, a sense of lack. If we strive to overcome that lack we fail, and suffering becomes marked by a renewed craving, now intensified by an acute sense of loss. Suffering derives directly from the fact that everything that exists is radically mutable. In particular, happiness, if it is achieved, cannot last. Suffering haunts happiness from the outside and the inside. Where Buddhism differs from Western religions is in the full acceptance of mutability; happiness lies in achieving that acceptance. Suffering is perpetuated by, and inseparable from, ignorance, and mitigated by wisdom. The deepest ignorance is to fail to see, or to disavow, the fact that everything that exists is mutable and transient. The force of this position may be seen, again, in contrast with Christianity; for the Buddhist the source of suffering is ignorance rather than sin. And the real source of suffering is desire (kama) or craving (tanha, literally 'thirst'), both of which are intrinsic to, constitutive of, humankind. There is a Buddhist doctrine of 'conditioned arising' or 'dependent origination' which asserts that everything that exists is dependent on certain prevailing conditions; nothing is intrinsically self-sufficient, independent or stable. This is especially true of selfhood. Buddhism completely denies the idea of a transcendent or autonomous self so powerful in Western religion and philosophy. To believe that there is some essential inner self or consciousness which is the real me, ultimately identifiable apart from everything that happens to me, is an illusion: What we call a personality is just an individual stream of becoming; a cross-section of it at any given moment in an aggregate of the five skandhas which (as long as it continues) are in unstable and unceasing interaction with each other, (p. 86) There is no I. Even to believe in an I which possesses emotions (albeit helplessly) is mistaken. One of the problems with desire, and why it cannot make us happy, is that it presupposes a self which does not exist; at the core of our being we are empty. Everything that constitutes the individual is marked by the unsatisfactoriness and suffering which is dukkha. Nor is there such a thing as the soul. The person is only a fleeting series of discontinuous states held together by desire, by craving. When desire is extinguished the person is dissolved. Since life and suffering are synonymous, the extinction of desire is the goal of human endeavor. Until that happens we continue to exist through a series of rebirths. It is not death as such which is deplored, but rebirth; it is not death but rebirth which we must escape. So much so that in some early texts rebirth is described as 'redeath'. Desire perpetuates life, which is synonymous with suffering, and which leads to death. Desire perpetuates death; it keeps one dying. The self is merged with ultimate reality not by identifying the core of the self (soul/essence) with ultimate reality (God/the universal) but by extinguishing self into non-being (nirvana). This is the aspect of Buddhism which has fascinated Western philosophers like Schopenhauer and artists like Wagner; with whatever degree of misinterpretation, they have been drawn by the ideas of empowerment through renunciation, nullification and quiescence; of the apparent ability to move freely with the mutability and change which arc the apparent cause of suffering; of choosing freely not to pursue the illusion of freedom, in a sense to eliminate the illusion of self; of becoming discontinuous, mindless. Not to escape mutability but to become it; not to just go with the flow of endless change, but to become it. To achieve the state of nirvana - that is, a state of being which is essentially empty of desire and striving. The wisdom of Buddhism does not desire to transcend change or to affirm an essential ultimate relationship of self to the absolute and unchanging (Platonic forms, the Christian God); nor does the Buddhist desire to die or to cease to be (the death drive): he or she does not desire annihilation but rather learns how to cease desiring. Nirvana is the utter cessation of desire or craving; it means extinction.

#### The alternative is to do nothing- Only doing nothing can reject the concept of the self.

Loy, 96’ (Loy, David. 1996 (“Beyond good and evil? A Buddhist critique of Nietzsche.” Asian Philosophy, 09552367, Mar1996, Vol. 6, Issue 1, A.A.)

This process implies that what we fear as nothingness is not really nothingness, for that is the perspective of a sense-of-self anxious about losing its grip on itself. According to Buddhism, letting-go of myself and merging with that nothingness leads to something else: when consciousness stops trying to catch its own tail, I become no-thing, and discover that I am everything -- or, more precisely, that I can be anything. The problem of desire is solved when, without the craving-for-being that compels me to take hold of something and try to settle down in it, I am free to experience my nonduality with it. Grasping at something merely reinforces a delusive sense of separation between that-which-is-grasped and that-which-grasps-at-it. The only way I can become a phenomenon is to realize I am it, according to Buddhism. A mind that realizes this is absolute in the original sense of the term: unconditioned. Meditative techniques decondition the mind from its tendency to circle in safe, familiar ruts, thus enabling its freedom to become anything. The most-quoted line from the best-known of all Mahayana scriptures, the Diamond Sutra, encapsulates all this in one phrase: "Let your mind come forth without fixing it anywhere." [10]

#### Do not evaluate death impacts. The fear of death allows us to cover up the illusory nature of the ego and precludes any ability to achieve Enlightenment.

Loy, 90’ (The Nonduality of Life and Death: A Buddhist View of Repression, By David Loy Philosophy East and West, Vol. 40, No. 2 April 1990 pp. 151-174, Copyright 2000 by University of Hawaii Press Hawaii, USA)

The difference between the three becomes a matter of degree. When you grow up unable to immerse yourself freely in the cultural roles available to¶ you, then your own life becomes a problem. Tillich called neurosis the way of avoiding nonbeing by avoiding being. Rank said the constant restriction of the neurotic's life is because "he refuses the loan (life) in order thus to avoid paying the debt (death)." The anguish and despair that the neurotic complains of are not the result of his symptoms but their cause; those symptoms are what shield him from the tragic contradictions at the heart of the human situation: death, guilt, meaninglessness. "The irony of man's condition is that the deepest need is to be free of the anxiety of death and annihilation; but it is life itself which awakens it, and so we must shrink from being fully alive." [23]¶ Then is the guilt that seems to bedevil man not the cause of our unhappiness, but its effect? "The ultimate problem is not guilt but the incapacity to live. The illusion of guilt is necessary for an animal that cannot enjoy life, in order to organize a life of nonenjoyment" (Brown). [24] In Buddhist terms, if the autonomy of self-consciousness is a delusion which can never quite shake off its shadow-sense that "something is wrong with me," it will need to rationalize that sense of inadequacy somehow. The restriction of the neurotic life-sphere merely aggravates this universal sense of lack into a paralysis of consciousness, a death-in-life. But if fear of death rebounds as fear of life, they become two sides of the same coin. Then genuine life cannot be opposed to death but must embrace them both: "Whoever rightly understands and celebrates death, at the same time magnifies life." (Rilke)¶ The irony is that as long as we crave immortality we are dead. As La Fontaine noted, he who resembles the dead is the most reluctant to die. Aries is struck by the fact that, at the time of the late Middle Ages which we have already mentioned, the idea of death was replaced by the idea of mortality in general: "the sense of death henceforth diluted and distributed over the whole of life, and thus lost its intensity." Yes, but only because life, too, lost its intensity, as he notices elsewhere: "It is a curious and seemingly paradoxical fact that life ceased to be so desirable at the same time that death ceased to seem so punctual or so powerful." [25] In the seventeenth and eighteenth centuries, the "living corpse" became a common theme: what better image could we ask for? Again, Aries' study implies that Becker's pessimistic con-clusions about human nature do not reflect man's unchanging nature, only one particular, historically conditioned nature: ours. But cannot a conditioned nature be reconditioned -- or de-conditioned?¶

## Case

#### Continuing CO2 increases is key to fertilization that averts worldwide crop failures and bio-diversity loss

Idso and Idso 7 (Sherwood, Craig, Carbon Dioxide and Global Change: Separating Scientific Fact from Personal Opinion, http://co2science.org/education/reports/hansen/HansenTestimonyCritique.pdf, p. 17-9)

How much land can ten billion people spare for nature? This provocative question was posed by Waggoner (1995) in an insightful essay wherein he explored the dynamic tension that exists between the need for land to support the agricultural enterprises that sustain mankind, and the need for land to support the natural ecosystems that sustain all other creatures. This challenge of meeting our future food needs – and not decimating the rest of the biosphere in the process – was stressed even more strongly by Huang et al. (2002), who wrote that humans “have encroached on almost all of the world's frontiers, leaving little new land that is cultivatable.” And in consequence of humanity's usurpation of this most basic of natural resources, Raven (2002) stated in his Presidential Address to the American Association for the Advancement of Science that “species-area relationships, taken worldwide in relation to habitat destruction, lead to projections of the loss of fully two-thirds of all species on earth by the end of this century.” In a more detailed analysis of the nature and implications of this impending “global land-grab” – which moved it closer to the present by a full half-century – Tilman et al. (2001) concluded that the task of meeting the doubled world food demand, which they calculated would exist in the year 2050, would likely exact a toll that “may rival climate change in environmental and societal impacts.” But how could something so catastrophic manifest itself so soon? Tilman and his nine collaborators shed some light on this question by noting that at the end of the 20th century mankind was already appropriating “more than a third of the production of terrestrial ecosystems and about half of usable freshwaters.” Now, think of doubling those figures, in order to meet the doubled global food demand that Tilman et al. predict for the year 2050. The results suggest that a mere 43 years from now mankind will be appropriating more than two thirds of terrestrial ecosystem production plus all of earth’s remaining usable freshwater, as has also been discussed by Wallace (2000). In terms of land devoted to agriculture, Tilman et al. calculate a much less ominous 18% increase by the year 2050. However, because most developed countries are projected to withdraw large areas of land from farming over the next fifty years, the loss of natural ecosystems to crops and pastures in developing countries will amount to about half of their remaining suitable land, which would, in the words of the Tilman team, “represent the worldwide loss of natural ecosystems larger than the United States.” What is more, they say that these land usurpations “could lead to the loss of about a third of remaining tropical and temperate forests, savannas, and grasslands.” And in a worrisome reflection upon the consequences of these land-use changes, they remind us that “species extinction is an irreversible impact of habitat destruction.” What can be done to avoid this horrific situation? In a subsequent analysis, Tilman et al. (2002) introduced a few more facts before suggesting some solutions. First of all, they noted that by 2050 the human population of the globe is projected to be 50% larger than it was just prior to the writing of their paper, and that global grain demand by 2050 could well double, due to expected increases in per capita real income and dietary shifts toward a higher proportion of meat. Hence, they but stated the obvious when they concluded that “raising yields on existing farmland is essential for ‘saving land for nature’.” So how can this readily-defined but Herculean task be accomplished? Tilman et al. proposed a strategy that focuses on three essential efforts: (1) increasing crop yield per unit of land area, (2) increasing crop yield per unit of nutrients applied, and (3) increasing crop yield per unit of water used. With respect to the first of these efforts – increasing crop yield per unit of land area – the researchers note that in many parts of the world the historical rate-of-increase in crop yield is declining, as the genetic ceiling for maximal yield potential is being approached. This observation, in their estimation, “highlights the need for efforts to steadily increase the yield potential ceiling.” With respect to the second effort – increasing crop yield per unit of nutrients applied – they note that “without the use of synthetic fertilizers, world food production could not have increased at the rate [that it did in the past] and more natural ecosystems would have been converted to agriculture.” Hence, they say that the ultimate solution “will require significant increases in nutrient use efficiency, that is, in cereal production per unit of added nitrogen.” Finally, with respect to the third effort – increasing crop yield per unit of water used – Tilman et al. note that “water is regionally scarce,” and that “many countries in a band from China through India and Pakistan, and the Middle East to North Africa either currently or will soon fail to have adequate water to maintain per capita food production from irrigated land.” Increasing crop water use efficiency, therefore, is also a must. Although the impending man vs. nature crisis and several important elements of its potential solution are thus well defined, Tilman and his first set of collaborators concluded that “even the best available technologies, fully deployed, cannot prevent many of the forecasted problems.” This was also the finding of Idso and Idso (2000), who concluded that although “expected advances in agricultural technology and expertise will significantly increase the food production potential of many countries and regions,” these advances “will not increase production fast enough to meet the demands of the even faster-growing human population of the planet.” How can we prevent this unthinkable catastrophe from occurring, especially when it has been concluded by highly-credentialed researchers that earth possesses insufficient land and freshwater resources to forestall it, while simultaneously retaining any semblance of the natural world and its myriad animate creations? Although the task may appear next to impossible to accomplish, it can be done; for we have a powerful ally in the ongoing rise in the atmosphere’s CO2 concentration that can provide what we can't. Since atmospheric CO2 is the basic “food” of nearly all plants, the more of it there is in the air, the better they function and the more productive they become. For a 300-ppm increase in the atmosphere's CO2 concentration above the planet’s current base level of slightly less than 400 ppm, for example, the productivity of earth's herbaceous plants rises by something on the order of 30% (Kimball, 1983; Idso and Idso, 1994), while the productivity of its woody plants rises by something on the order of 50% (Saxe et al., 1998; Idso and Kimball, 2001). Thus, as the air's CO2 content continues to rise, so too will the productive capacity or land-use efficiency of the planet continue to rise, as the aerial fertilization effect of the upward-trending atmospheric CO2 concentration boosts the growth rates and biomass production of nearly all plants in nearly all places. In addition, elevated atmospheric CO2 concentrations typically increase plant nutrient-use efficiency in general – and nitrogen-use efficiency in particular – as well as plant water-use efficiency, as may be verified by perusing the many reviews of scientific journal articles we have produced on these topics and archived in the Subject Index of our website (www.co2science.org). Consequently, with respect to fostering all three of the plant physiological phenomena that Tilman et al. (2002) contend are needed to prevent the catastrophic consequences they foresee for the planet just a few short decades from now, a continuation of the current upward trend in the atmosphere's CO2 concentration would appear to be essential. In the case we are considering here, for example, the degree of crop yield enhancement likely to be provided by the increase in atmospheric CO2 concentration expected to occur between 2000 and 2050 has been calculated by Idso and Idso (2000) to be sufficient – but only by the slightest of margins – to compensate for the huge differential that is expected to otherwise prevail between the supply and demand for food earmarked for human consumption just 43 years from now. Consequently, letting the evolution of technology take its natural course, with respect to anthropogenic CO2 emissions, would appear to be the only way we will ever be able to produce sufficient agricultural commodities to support ourselves in the year 2050 without the taking of unconscionable amounts of land and freshwater resources from nature and decimating the biosphere in the process.

#### This solves warming - plant productivity triggers a positive feedback loop with carbon sequestration

Idso et al 8 (Craig Idso, Sherwood Idso, and Keith Idso, CO2 Science, “Feedback Factors (Diffuse Light) – Summary”, http://co2science.org/subject/f/summaries/feedbackdiffuse.php)

(We disagree with any gendered language used)

The initial impetus for the increase in surface air temperature in the negative feedback phenomenon we describe here focuses exclusively on the incremental enhancement of the atmosphere's greenhouse effect that is produced by an increase in the air's CO2 content; and from this starting point we identify a chain of events that ultimately counteracts this impetus for warming by the incremental enhancement of the planet's natural rate of CO2 removal from the air.¶ The first of the linkages in this negative feedback loop is the proven propensity for higher levels of atmospheric CO2 to enhance vegetative productivity (see Plant Growth in our Data Center and Water Use Efficiency in our Subject Index for verification), which phenomena are themselves powerful negative feedback mechanisms of the type we envision. Greater CO2-enhanced photosynthetic rates, for example, enable plants to remove considerably more CO2 from the air than they do under current conditions; while CO2-induced increases in plant water use efficiency allow plants to grow where it was previously too dry for them. This latter consequence of atmospheric CO2 enrichment establishes a potential for more CO2 to be removed from the atmosphere by increasing the abundance of earth's plants, whereas the former phenomenon does so by increasing their robustness.¶ The second of the linkages of the new feedback loop is the ability of plants to emit gases to the atmosphere that are ultimately converted into "biosols," i.e., aerosols that owe their existence to the biological activities of earth's vegetation, many of which function as cloud condensation nuclei. It takes little imagination to realize that since the existence of these atmospheric particles is dependent upon the physiological activities of plants and their associated soil biota, the CO2-induced presence of more and more-highly-productive plants will lead to the production of more of these cloud-mediating particles, which can then act to cool the planet. But this two-linkage-long negative feedback effect, like the one-linkage-long dual cooling mechanism described in the previous paragraph, is still not the endpoint of the new feedback loop we are describing.¶ The third linkage of the new scenario is the observed propensity for increases in aerosols and cloud particles to enhance the amount of diffuse solar radiation reaching the earth's surface. The fourth linkage is the ability of enhanced diffuse lighting to reduce the volume of shade within vegetative canopies. The fifth linkage is the tendency for less internal canopy shading to enhance whole-canopy photosynthesis, which finally produces the end result: a greater biological extraction of CO2 from the air and the subsequent sequestration of its carbon, compliments of the intensified diffuse-light-driven increase in total canopy photosynthesis and subsequent transfers of the extra fixed carbon to plant and soil storage reservoirs.¶ How significant is this multi-link process? Roderick et al. (2001) provide a good estimate based on the utilization of a unique "natural experiment," a technique that has been used extensively by Idso (1998) to evaluate the climatic sensitivity of the entire planet. Specifically, Roderick and his colleagues considered the volcanic eruption of Mt. Pinatubo in June of 1991, which ejected enough gases and fine materials into the atmosphere to produce sufficient aerosol particles to greatly increase the diffuse component of the solar radiation reaching the surface of the earth from that point in time through much of 1993, while only slightly reducing the receipt of total solar radiation. Based on a set of lengthy calculations, they concluded that the Mt. Pinatubo eruption may well have resulted in the removal of an extra 2.5 Gt of carbon from the atmosphere due to its diffuse-light-enhancing stimulation of terrestrial vegetation in the year following the eruption, which would have reduced the ongoing rise in the air's CO2 concentration that year by about 1.2 ppm.Interestingly, this reduction is about the magnitude of the real-world perturbation that was actually observed (Sarmiento, 1993). What makes this observation even more impressive is the fact that the CO2 reduction was coincident with an El Niño event; because, in the words of Roderick et al., "previous and subsequent such events have been associated with increases in atmospheric CO2." In addition, the observed reduction in total solar radiation received at the earth's surface during this period would have had a tendency to reduce the amount of photosynthetically active radiation incident upon earth's plants, which would also have had a tendency to cause the air's CO2 content to rise, as it would tend to lessen global photosynthetic activity.¶ Significant support for the new negative feedback phenomenon was swift in coming, as the very next year a team of 33 researchers published the results of a comprehensive study (Law et al., 2002) that compared seasonal and annual values of CO2 and water vapor exchange across sites in forests, grasslands, crops and tundra -- which are part of an international network called FLUXNET -- investigating the responses of these exchanges to variations in a number of environmental factors, including direct and diffuse solar radiation. As for their findings, the huge group of researchers reported that "net carbon uptake (net ecosystem exchange, the net of photosynthesis and respiration) was greater under diffuse than under direct radiation conditions," and in discussing this finding, which is the centerpiece of the negative feedback phenomenon we describe, they noted that "cloud-cover results in a greater proportion of diffuse radiation and constitutes a higher fraction of light penetrating to lower depths of the canopy (Oechel and Lawrence, 1985)." More importantly, they also reported that "Goulden et al. (1997), Fitzjarrald et al. (1995), and Sakai et al. (1996) showed that net carbon uptake was consistently higher during cloudy periods in a boreal coniferous forest than during sunny periods with the same PPFD [photosynthetic photon flux density]." In fact, they wrote that "Hollinger et al. (1994) found that daily net CO2 uptake was greater on cloudy days, even though total PPFD was 21-45% lower on cloudy days than on clear days [our italics]."¶ One year later, Gu et al. (2003) reported that they "used two independent and direct methods to examine the photosynthetic response of a northern hardwood forest (Harvard Forest, 42.5°N, 72.2°W) to changes in diffuse radiation caused by Mount Pinatubo's volcanic aerosols," finding that in the eruption year of 1991, "around noontime in the mid-growing season, the gross photosynthetic rate under the perturbed cloudless [our italics] solar radiation regime was 23, 8, and 4% higher than that under the normal cloudless [our italics] solar radiation regime in 1992, 1993, and 1994, respectively," and that "integrated over a day, the enhancement for canopy gross photosynthesis by the volcanic aerosols [our italics] was 21% in 1992, 6% in 1993 and 3% in 1994." Commenting on the significance of these observations, Gu et al. noted that "because of substantial increases in diffuse radiation world-wide after the eruption and strong positive effects of diffuse radiation for a variety of vegetation types, it is likely that our findings at Harvard Forest represent a global [our italics] phenomenon."¶ In the preceding paragraph, we have highlighted the fact that the diffuse-light-induced photosynthetic enhancement observed by Gu et al., in addition to likely being global in scope, was caused by volcanic aerosols under acting under cloudless conditions. Our reason for calling attention to these two italicized words is to clearly distinguish this phenomenon from a closely related one that is also described by Gu et al., i.e., the propensity for the extra diffuse light created by increased cloud cover to further enhance photosynthesis, even though the total flux of solar radiation received at the earth's surface may be reduced under such conditions. Based on still more real-world data, for example, Gu et al. note that "Harvard Forest photosynthesis also increases with cloud cover, with a peak at about 50% cloud cover."¶ Although very impressive, in all of the situations discussed above the source of the enhanced atmospheric aerosol concentration was a singular significant event -- specifically, a massive volcanic eruption -- but what we really need to know is what happens under more normal conditions. This was the new and important question that was addressed the following year in the study of Niyogi et al. (2004): "Can we detect the effect of relatively routine aerosol variability on field measurements of CO2 fluxes, and if so, how does the variability in aerosol loading affect CO2 fluxes over different landscapes?"¶ To answer this question, the group of sixteen researchers used CO2 flux data from the AmeriFlux network (Baldocchi et al., 2001) together with cloud-free aerosol optical depth data from the NASA Robotic Network (AERONET; Holben et al., 2001) to assess the effect of aerosol loading on the net assimilation of CO2 by three types of vegetation: trees (broadleaf deciduous forest and mixed forest), crops (winter wheat, soybeans and corn) and grasslands. Their work revealed that an aerosol-induced increase in diffuse radiative-flux fraction [DRF = ratio of diffuse (Rd) to total or global (Rg) solar irradiance] increased the net CO2 assimilation of trees and crops, making them larger carbon sinks, but that it decreased the net CO2 assimilation of grasslands, making them smaller carbon sinks.¶ How significant were the effects observed by Niyogi et al.? For a summer mid-range Rg flux of 500 W m-2, going from the set of all DRF values between 0.0 and 0.4 to the set of all DRF values between 0.6 and 1.0 resulted in an approximate 50% increase in net CO2 assimilation by a broadleaf deciduous forest located in Tennessee, USA. Averaged over the entire daylight period, they further determined that the shift from the lower to the higher set of DRF values "enhances photosynthetic fluxes by about 30% at this study site." Similar results were obtained for the mixed forest and the conglomerate of crops studied. Hence, they concluded that natural variability among commonly-present aerosols can "routinely influence surface irradiance and hence the terrestrial CO2 flux and regional carbon cycle." And for these types of land-cover (forests and agricultural crops), that influence is to significantly increase the assimilation of CO2 from the atmosphere.¶ In the case of grasslands, however, the effect was found to be just the opposite, with greater aerosol loading of the atmosphere leading to less CO2 assimilation, due most likely, in the estimation of Niyogi et al., to grasslands' significantly different canopy architecture. With respect to the planet as a whole, however, the net effect is decidedly positive, as earth's trees are the primary planetary players in the sequestration of carbon. Post et al. (1990), for example, noted that woody plants account for approximately 75% of terrestrial photosynthesis, which comprises about 90% of the global total (Sellers and McCarthy, 1990); and those numbers make earth's trees and shrubs responsible for fully two thirds (0.75 x 90% = 67.5%) of the planet's net primary production.¶ What is especially exciting about these real-world observations is that much of the commonly-present aerosol burden of the atmosphere is plant-derived. Hence, it can be appreciated that earth's woody plants are themselves responsible for emitting to the air that which ultimately enhances their own photosynthetic prowess. In other words, earth's trees significantly control their own destiny, i.e., they alter the atmospheric environment in a way that directly enhances their opportunities for greater growth.¶ Man helps too, in this regard; for as he pumps ever more CO2 into the atmosphere, the globe's woody plants quickly respond to its aerial fertilization effect, becoming ever more productive, which leads to even more plant-derived aerosols being released to the atmosphere, which stimulates this positive feedback cycle to a still greater degree. Stated another way, earth's trees use some of the CO2 emitted to the atmosphere by man to alter the aerial environment so as to enable them to remove even more CO2 from the air. The end result is that earth's trees and humanity are working hand-in-hand to significantly increase the productivity of the biosphere; and it is happening in spite of all other insults to the environment that work in opposition to enhanced biological activity.¶ In light of these several observations, it should be obvious that the historical and still-ongoing CO2-induced increase in atmospheric biosols should have had, and should be continuing to have, a significant cooling effect on the planet that exerts itself by both slowing the rate of rise of the air's CO2 content and reducing the receipt of solar radiation at the earth's surface, neither of which effects is fully and adequately included in any general circulation model of the atmosphere of which we are aware. Hence, it should be equally obvious that climate-alarmist predictions of future catastrophic CO2-induced global warming may well be nothing more than catastrophic exaggerations.

#### 1. Icebergs are a negative feedback – none of their evidence takes this into account

Macfarlane, 09

(Jo, The Daily Mail Online. “Amazing discovery of green algae which could save the world from global warming” http://www.dailymail.co.uk/sciencetech/article-1104772/Amazing-discovery-green-algae-save-world-global-warming.html?ITO=1490#)

Melting icebergs, so long the iconic image of global warming, are triggering a natural process that could delay or even end climate change, British scientists have found. A team working on board the Royal Navy’s HMS Endurance off the coast of Antarctica have discovered tiny particles of iron are released into the sea as the ice melts. The iron feeds algae, which blooms and sucks up damaging carbon dioxide (CO2), then sinks, locking away the harmful greenhouse gas for hundreds of years. The team think the process could hold the key to staving off globally rising temperatures. Lead researcher Professor Rob Raiswell, from Leeds University, said: ‘The Earth itself seems to want to save us.’ As a result of the findings, a ground-breaking experiment will be held this month off the British island of South Georgia, 800 miles south east of the Falklands. It will see if the phenomenon could be harnessed to contain rising carbon emissions. Researchers will use several tons of iron sulphate to create an artificial bloom of algae. The patch will be so large it will be visible from space. Scientists already knew that releasing iron into the sea stimulates the growth of algae. But environmentalists had warned that to do so artificially might damage the planet’s fragile ecosystem. Last year, the UN banned iron fertilisation in the Great Southern Ocean. However, the new findings show the mechanism has actually been operating naturally for millions of years within the isolated southern waters. And it has led to the researchers being granted permission by the UN to move ahead with the experiment. The scientist who will lead the next stage of the study, Professor Victor Smetacek, said: ‘The gas is sure to be out of the Earth’s atmosphere for several hundred years.’ The aim is to discover whether artificially fertilising the area will create more algae in the Great Southern Ocean. That ocean is an untapped resource for soaking up CO2 because it doesn’t have much iron, unlike other seas. It covers 20million square miles, and scientists say that if this could all be treated with iron, the resulting algae would remove three-and-a-half gigatons of carbon dioxide. This is equivalent to one eighth of all emissions annually created by burning fossil fuels such as oil, gas and coal. It would also be equal to removing all carbon dioxide emitted from every power plant, chimney and car exhaust in the rapidly expanding industries of India and Japan. However, the experts warn it is too early to say whether it will work. The team from ice patrol ship HMS Endurance used sledgehammers to chip deep into the interior of a 33ft-long mass of polar ice from half-a-dozen house-sized icebergs that had blown ashore in Antarctica. Once back in the UK, they used a special microscope to analyse the samples, which revealed what they had been looking for – tiny iron particles, only a few millionths of a millimetre wide, embedded deep within the ice. Until now, it was thought that the only source of iron in the Southern Ocean was wind blowing in metal compounds from the deserts of nearby continents like Australia. But the research has disproved this. Prof Raiswell said: ‘These particles measure only a fraction of a millimetre, but they have great importance for the global climate.’ Rising global temperatures, particularly over the past 50 years, have increased the rate at which polar ice melts, causing sea levels to rise. Ten of the warmest years on record have been since 1991, with experts predicting that 2009 could be the hottest year yet. The climate-change effect is set to substantially increase over the coming decades, as developing industrial nations pump out more CO2. Temperatures along the Antarctic Peninsula alone have increased by 2.5C over the past 50 years. But for every percentage point increase in the amount of ice that breaks off, Prof Raiswell calculates that a further 26million tons of CO2 is removed from the atmosphere.

#### 2. Newest studies prove that CO2 is not anthropogenic – emissions from fossil fuels only stay in the atmosphere for five years and natural forcings are more important

Marohasy, 09

(Jennifer, senior fellow at the Australian think tank the Institute of Public Affairs, PhD in biology from the University of Queensland. Cites research from Robert H. Essenhigh, Department of Mechanical Engineering at Ohio State University, “Carbon Dioxide in Atmosphere 5-15 Years Only” 4-17-09. http://jennifermarohasy.com/blog/2009/04/carbon-dioxide-in-atmosphere-5-15-years-only/)

If carbon dioxide emissions from fossil fuels only stayed in the atmosphere a few years, say five years, then there may not be quite the urgency currently associated with anthropogenic global warming. Indeed it might be argued that the problem of elevated levels of atmospheric carbon dioxide could be easily reversed as soon as alternative fuel sources where found and/or just before a tipping point was reached. The general consensus, however, is not five years, but rather more in the range of 50 to 200 years. But in a new technical paper to be published in the journal ‘Energy and Fuels’, Robert Essenhigh from Ohio State University, throws doubt on this consensus. Using the combustion/chemical-engineering Perfectly Stirred Reactor (PSR) mixing structure, or 0-D Box, as the basis of a model for residence time in the atmosphere, he explains that carbon dioxide emissions from fossil fuels are likely to have a residence time of between 5 and 15 years. He further concludes that the current trend of rising atmospheric carbon dioxide concentrations is not from anthropogenic sources, but due to natural factors. Here’s the abstract: The driver for this study is the wide-ranging published values of the CO2 atmospheric residence time (RT), , with the values differing by more than an order of magnitude, where the significance of the difference relates to decisions on whether: (1) to attempt control of combustion-sourced (anthropogenic) CO2 emissions, if >100 years; or (2) not to attempt control, if ~10 years. This given difference is particularly evident in the IPCC First (1990) Climate Change Report where, in the opening Policymakers Summary of the Report, the RT is stated to be in the range 50 to 200 years; and, (largely) based on that, it was also concluded in the Report and from subsequent related studies that the current rising level of CO2 was due to combustion of fossil fuels, thus carrying the, now widely-accepted, rider that CO2 emissions from combustion should therefore be curbed.

However, the actual data in the text of the IPCC Report separately states a value of 4 years. The differential of these two times is then clearly identified in the relevant supporting-documents of the report as being, separately: (1) a long-term (~100 years) adjustment or response time to accommodate imbalance increases in CO2 emissions from all sources; and, (2) the actual RT in the atmosphere, of ~4 years. As check on that differentiation, and its alternative outcome, the definition and determination of RT thus defined the need for and focus of this study. In this study, using the combustion/chemical-engineering Perfectly Stirred Reactor (PSR) mixing structure, or 0-D Box, for the model-basis, as alternative to the more-commonly used Global Circulation Models (GCM’s), to define and determine the RT in the atmosphere, then, using data from the IPCC and other sources for model validation and numerical determination, the data: (1) support the validity of the PSR model-application in this context; and (2) from the analysis, provide (quasi-equilibrium) residence times for CO2 of: ~5 years carrying C12; and of ~16 years carrying C14, with both values essentially in agreement with the IPCC short-term (4-year) value, separately, in agreement with most other data sources and notably a (1998) listing by Segalstad of 36 other published values, also in the range 5 to 15 years. Additionally, the analytical results then also support the IPCC analysis and data on the longer “adjustment time” (~100 years) governing the long-term rising “quasi-equilibrium” concentration of CO2 in the atmosphere. For principal verification of the adopted PSR model, the data source used was outcome of the injection of excess 14CO2 into the atmosphere during the A-bomb tests in the 1950’s/60’s which generated an initial increase of approximately 1000% above the normal value, and which then declined substantially exponentially with time, with = 16 years, in accordance with the (unsteady-state) prediction from, and jointly providing validation for, the PSR analysis. With the short (5-15 year) RT results shown to be in quasi-equilibrium, this then supports the (independently-based) conclusion that the long-term (~100-year) rising atmospheric CO2 concentration is not from anthropogenic sources but, in accordance with conclusions from other studies, is most probably the outcome of the rising atmospheric temperature which is due to other natural factors. This further supports the conclusion that global warming is not anthropogenically driven as outcome of combustion. The economic and political significance of that conclusion will be self-evident.

#### 4. Observational data proves warming has stopped – the multi-decadal oscillation overwhelms CO2 forcing

Akasofu, 08

Former director of the Geophysical Institute and the International Arctic Research Center @ U of Alaska-Fairbanks (Syun-Ichi, “Global warming has paused”, 9/27/2008, http://newsminer.com/news/2008/sep/27/global-warming-has-paused/?opinion)

Recent studies by the Hadley Climate Research Center (UK), the Japan Meteorological Agency, the National Oceanic and Atmospheric Administration, the University of East Anglia (UK) and the University of Alabama Huntsville show clearly that the rising trend of global average temperature stopped in 2000-2001. Further, NASA data shows that warming in the southern hemisphere has stopped, and that ocean temperatures also have stopped rising. The global average temperature had been rising until about 2000-2001. The International Panel for Climate Change (IPCC) and many scientists hypothesize rising temperatures were mostly caused by the greenhouse effect of carbon dioxide (CO2), and they predicted further temperature increases after 2000. It was natural to assume that CO2 was responsible for the rise, because CO2 molecules in the atmosphere tend to reflect back the infrared radiation to the ground, preventing cooling (the greenhouse effect) and also because CO2 concentrations have been rapidly increasing since 1946. But, this hypothesis on the cause of global warming is just one of several. Unfortunately, many scientists appear to forget that weather and climate also are controlled by nature, as we witness weather changes every day and climate changes in longer terms. During the last several years, I have suggested that it is important to identify the natural effects and subtract them from the temperature changes. Only then can we be sure of the man-made contributions. This suggestion brought me the dubious honor of being designated “Alaska’s most famous climate change skeptic.” The stopping of the rise in global average temperature after 2000-2001 indicates that the hypothesis and prediction made by the IPCC need serious revision. I have been suggesting during the last several years that there are at least two natural components that cause long-term climate changes. The first is the recovery (namely, warming) from the Little Ice Age, which occured approximately 1800-1850. The other is what we call the multi-decadal oscillation. In the recent past, this component had a positive gradient (warming) from 1910 to 1940, a negative gradient (cooling — many Fairbanksans remember the very cold winters in the 1960s) from 1940 to 1975, and then again a positive gradient (warming — many Fairbanksans have enjoyed the comfortable winters of the last few decades or so) from 1975 to about 2000. The multi-decadal oscillation peaked around 2000, and a negative trend began at that time. The second component has a large amplitude and can overwhelm the first, and I believe that this is the reason for the stopping of the temperature rise. Since CO2 has only a positive effect, the new trend indicates that natural changes are greater than the CO2 effect, as I have stated during the last several years.