## 1

#### The standard is act hedonistic util. Prefer –

#### 1 – Pleasure and pain *are* intrinsic value and disvalue – everything else *regresses* – robust neuroscience.

Blum et al. 18

Kenneth Blum, 1Department of Psychiatry, Boonshoft School of Medicine, Dayton VA Medical Center, Wright State University, Dayton, OH, USA 2Department of Psychiatry, McKnight Brain Institute, University of Florida College of Medicine, Gainesville, FL, USA 3Department of Psychiatry and Behavioral Sciences, Keck Medicine University of Southern California, Los Angeles, CA, USA 4Division of Applied Clinical Research & Education, Dominion Diagnostics, LLC, North Kingstown, RI, USA 5Department of Precision Medicine, Geneus Health LLC, San Antonio, TX, USA 6Department of Addiction Research & Therapy, Nupathways Inc., Innsbrook, MO, USA 7Department of Clinical Neurology, Path Foundation, New York, NY, USA 8Division of Neuroscience-Based Addiction Therapy, The Shores Treatment & Recovery Center, Port Saint Lucie, FL, USA 9Institute of Psychology, Eötvös Loránd University, Budapest, Hungary 10Division of Addiction Research, Dominion Diagnostics, LLC. North Kingston, RI, USA 11Victory Nutrition International, Lederach, PA., USA 12National Human Genome Center at Howard University, Washington, DC., USA, Marjorie Gondré-Lewis, 12National Human Genome Center at Howard University, Washington, DC., USA 13Departments of Anatomy and Psychiatry, Howard University College of Medicine, Washington, DC US, Bruce Steinberg, 4Division of Applied Clinical Research & Education, Dominion Diagnostics, LLC, North Kingstown, RI, USA, Igor Elman, 15Department Psychiatry, Cooper University School of Medicine, Camden, NJ, USA, David Baron, 3Department of Psychiatry and Behavioral Sciences, Keck Medicine University of Southern California, Los Angeles, CA, USA, Edward J Modestino, 14Department of Psychology, Curry College, Milton, MA, USA, Rajendra D Badgaiyan, 15Department Psychiatry, Cooper University School of Medicine, Camden, NJ, USA, Mark S Gold 16Department of Psychiatry, Washington University, St. Louis, MO, USA, “Our evolved unique pleasure circuit makes humans different from apes: Reconsideration of data derived from animal studies”, U.S. Department of Veterans Affairs, 28 February 2018, accessed: 19 August 2020, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6446569/>, R.S.

**Pleasure** is not only one of the three primary reward functions but it also **defines reward.** As homeostasis explains the functions of only a limited number of rewards, the principal reason why particular stimuli, objects, events, situations, and activities are rewarding may be due to pleasure. This applies first of all to sex and to the primary homeostatic rewards of food and liquid and extends to money, taste, beauty, social encounters and nonmaterial, internally set, and intrinsic rewards. Pleasure, as the primary effect of rewards, drives the prime reward functions of learning, approach behavior, and decision making and provides the **basis for hedonic theories** of reward function. We are attracted by most rewards and exert intense efforts to obtain them, just because they are enjoyable [10].

Pleasure is a passive reaction that derives from the experience or prediction of reward and may lead to a long-lasting state of happiness. The word happiness is difficult to define. In fact, just obtaining physical pleasure may not be enough. One key to happiness involves a network of good friends. However, it is not obvious how the higher forms of satisfaction and pleasure are related to an ice cream cone, or to your team winning a sporting event. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure [14].

Pleasure as a hallmark of reward is sufficient for defining a reward, but it may not be necessary. A reward may generate positive learning and approach behavior simply because it contains substances that are essential for body function. When we are hungry, we may eat bad and unpleasant meals. A monkey who receives hundreds of small drops of water every morning in the laboratory is unlikely to feel a rush of pleasure every time it gets the 0.1 ml. Nevertheless, with these precautions in mind, we may define any stimulus, object, event, activity, or situation that has the potential to produce pleasure as a reward. In the context of reward deficiency or for disorders of addiction, homeostasis pursues pharmacological treatments: drugs to treat drug addiction, obesity, and other compulsive behaviors. The theory of allostasis suggests broader approaches - such as re-expanding the range of possible pleasures and providing opportunities to expend effort in their pursuit. [15]. It is noteworthy, the first animal studies eliciting approach behavior by electrical brain stimulation interpreted their findings as a discovery of the brain’s pleasure centers [16] which were later partly associated with midbrain dopamine neurons [17–19] despite the notorious difficulties of identifying emotions in animals.

Evolutionary theories of pleasure: The love connection BO:D

Charles Darwin and other biological scientists that have examined the biological evolution and its basic principles found various mechanisms that steer behavior and biological development. Besides their theory on natural selection, it was particularly the sexual selection process that gained significance in the latter context over the last century, especially when it comes to the question of what makes us “what we are,” i.e., human. However, the capacity to sexually select and evolve is not at all a human accomplishment alone or a sign of our uniqueness; yet, we humans, as it seems, are ingenious in fooling ourselves and others–when we are in love or desperately search for it.

It is well established that modern biological theory conjectures that **organisms are** the **result of evolutionary competition.** In fact, Richard Dawkins stresses gene survival and propagation as the basic mechanism of life [20]. Only genes that lead to the fittest phenotype will make it. It is noteworthy that the phenotype is selected based on behavior that maximizes gene propagation. To do so, the phenotype must survive and generate offspring, and be better at it than its competitors. Thus, the ultimate, distal function of rewards is to increase evolutionary fitness by ensuring the survival of the organism and reproduction. It is agreed that learning, approach, economic decisions, and positive emotions are the proximal functions through which phenotypes obtain other necessary nutrients for survival, mating, and care for offspring.

Behavioral reward functions have evolved to help individuals to survive and propagate their genes. Apparently, people need to live well and long enough to reproduce. Most would agree that homo-sapiens do so by ingesting the substances that make their bodies function properly. For this reason, foods and drinks are rewards. Additional rewards, including those used for economic exchanges, ensure sufficient palatable food and drink supply. Mating and gene propagation is supported by powerful sexual attraction. Additional properties, like body form, augment the chance to mate and nourish and defend offspring and are therefore also rewards. Care for offspring until they can reproduce themselves helps gene propagation and is rewarding; otherwise, many believe mating is useless. According to David E Comings, as any small edge will ultimately result in evolutionary advantage [21], additional reward mechanisms like novelty seeking and exploration widen the spectrum of available rewards and thus enhance the chance for survival, reproduction, and ultimate gene propagation. These functions may help us to obtain the benefits of distant rewards that are determined by our own interests and not immediately available in the environment. Thus the distal reward function in gene propagation and evolutionary fitness defines the proximal reward functions that we see in everyday behavior. That is why foods, drinks, mates, and offspring are rewarding.

There have been theories linking pleasure as a required component of health benefits salutogenesis, (salugenesis). In essence, under these terms, pleasure is described as a state or feeling of happiness and satisfaction resulting from an experience that one enjoys. Regarding pleasure, it is a double-edged sword, on the one hand, it promotes positive feelings (like mindfulness) and even better cognition, possibly through the release of dopamine [22]. But on the other hand, pleasure simultaneously encourages addiction and other negative behaviors, i.e., motivational toxicity. It is a complex neurobiological phenomenon, relying on reward circuitry or limbic activity. It is important to realize that through the “Brain Reward Cascade” (BRC) endorphin and endogenous morphinergic mechanisms may play a role [23]. While natural rewards are essential for survival and appetitive motivation leading to beneficial biological behaviors like eating, sex, and reproduction, crucial social interactions seem to further facilitate the positive effects exerted by pleasurable experiences. Indeed, experimentation with addictive drugs is capable of directly acting on reward pathways and causing deterioration of these systems promoting hypodopaminergia [24]. Most would agree that pleasurable activities can stimulate personal growth and may help to induce healthy behavioral changes, including stress management [25]. The work of Esch and Stefano [26] concerning the link between compassion and love implicate the brain reward system, and pleasure induction suggests that social contact in general, i.e., love, attachment, and compassion, can be highly effective in stress reduction, survival, and overall health.

Understanding the role of neurotransmission and pleasurable states both positive and negative have been adequately studied over many decades [26–37], but comparative anatomical and neurobiological function between animals and homo sapiens appear to be required and seem to be in an infancy stage.

Finding happiness is different between apes and humans

As stated earlier in this expert opinion one key to happiness involves a network of good friends [38]. However, it is not entirely clear exactly how the higher forms of satisfaction and pleasure are related to a sugar rush, winning a sports event or even sky diving, all of which augment dopamine release at the reward brain site. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure.

Remarkably, there are pathways for ordinary liking and pleasure, which are limited in scope as described above in this commentary. However, there are **many brain regions**, often termed hot and cold spots, that significantly **modulate** (increase or decrease) our **pleasure or** even produce **the opposite** of pleasure— that is disgust and fear [39]. One specific region of the nucleus accumbens is organized like a computer keyboard, with particular stimulus triggers in rows— producing an increase and decrease of pleasure and disgust. Moreover, the cortex has unique roles in the cognitive evaluation of our feelings of pleasure [40]. Importantly, the interplay of these multiple triggers and the higher brain centers in the prefrontal cortex are very intricate and are just being uncovered.

Desire and reward centers

It is surprising that many different sources of pleasure activate the same circuits between the mesocorticolimbic regions (Figure 1). Reward and desire are two aspects pleasure induction and have a very widespread, large circuit. Some part of this circuit distinguishes between desire and dread. The so-called pleasure circuitry called “REWARD” involves a well-known dopamine pathway in the mesolimbic system that can influence both pleasure and motivation.

In simplest terms, the well-established mesolimbic system is a dopamine circuit for reward. It starts in the ventral tegmental area (VTA) of the midbrain and travels to the nucleus accumbens (Figure 2). It is the cornerstone target to all addictions. The VTA is encompassed with neurons using glutamate, GABA, and dopamine. The nucleus accumbens (NAc) is located within the ventral striatum and is divided into two sub-regions—the motor and limbic regions associated with its core and shell, respectively. The NAc has spiny neurons that receive dopamine from the VTA and glutamate (a dopamine driver) from the hippocampus, amygdala and medial prefrontal cortex. Subsequently, the NAc projects GABA signals to an area termed the ventral pallidum (VP). The region is a relay station in the limbic loop of the basal ganglia, critical for motivation, behavior, emotions and the “Feel Good” response. This defined system of the brain is involved in all addictions –substance, and non –substance related. In 1995, our laboratory coined the term “Reward Deficiency Syndrome” (RDS) to describe genetic and epigenetic induced hypodopaminergia in the “Brain Reward Cascade” that contribute to addiction and compulsive behaviors [3,6,41].

Furthermore, ordinary “liking” of something, or pure pleasure, is represented by small regions mainly in the limbic system (old reptilian part of the brain). These may be part of larger neural circuits. In Latin, hedus is the term for “sweet”; and in Greek, hodone is the term for “pleasure.” Thus, the word Hedonic is now referring to various subcomponents of pleasure: some associated with purely sensory and others with more complex emotions involving morals, aesthetics, and social interactions. The capacity to have pleasure is part of being healthy and may even extend life, especially if linked to optimism as a dopaminergic response [42].

Psychiatric illness often includes symptoms of an abnormal inability to experience pleasure, referred to as anhedonia. A negative feeling state is called dysphoria, which can consist of many emotions such as pain, depression, anxiety, fear, and disgust. Previously many scientists used animal research to uncover the complex mechanisms of pleasure, liking, motivation and even emotions like panic and fear, as discussed above [43]. However, as a significant amount of related research about the specific brain regions of pleasure/reward circuitry has been derived from invasive studies of animals, these cannot be directly compared with subjective states experienced by humans.

In an attempt to resolve the controversy regarding the causal contributions of mesolimbic dopamine systems to reward, we have previously evaluated the three-main competing explanatory categories: “liking,” “learning,” and “wanting” [3]. That is, dopamine may mediate (a) liking: the hedonic impact of reward, (b) learning: learned predictions about rewarding effects, or (c) wanting: the pursuit of rewards by attributing incentive salience to reward-related stimuli [44]. We have evaluated these hypotheses, especially as they relate to the RDS, and we find that the incentive salience or “wanting” hypothesis of dopaminergic functioning is supported by a majority of the scientific evidence. Various neuroimaging studies have shown that anticipated behaviors such as sex and gaming, delicious foods and drugs of abuse all affect brain regions associated with reward networks, and may not be unidirectional. Drugs of abuse enhance dopamine signaling which sensitizes mesolimbic brain mechanisms that apparently evolved explicitly to attribute incentive salience to various rewards [45].

Addictive substances are voluntarily self-administered, and they enhance (directly or indirectly) dopaminergic synaptic function in the NAc. This activation of the brain reward networks (producing the ecstatic “high” that users seek). Although these circuits were initially thought to encode a set point of hedonic tone, it is now being considered to be far more complicated in function, also encoding attention, reward expectancy, disconfirmation of reward expectancy, and incentive motivation [46]. The argument about addiction as a disease may be confused with a predisposition to substance and nonsubstance rewards relative to the extreme effect of drugs of abuse on brain neurochemistry. The former sets up an individual to be at high risk through both genetic polymorphisms in reward genes as well as harmful epigenetic insult. Some Psychologists, even with all the data, still infer that addiction is not a disease [47]. Elevated stress levels, together with polymorphisms (genetic variations) of various dopaminergic genes and the genes related to other neurotransmitters (and their genetic variants), and may have an additive effect on vulnerability to various addictions [48]. In this regard, Vanyukov, et al. [48] suggested based on review that whereas the gateway hypothesis does not specify mechanistic connections between “stages,” and does not extend to the risks for addictions the concept of common liability to addictions may be more parsimonious. The latter theory is grounded in genetic theory and supported by data identifying common sources of variation in the risk for specific addictions (e.g., RDS). This commonality has identifiable neurobiological substrate and plausible evolutionary explanations.

Over many years the controversy of dopamine involvement in especially “pleasure” has led to confusion concerning separating motivation from actual pleasure (wanting versus liking) [49]. We take the position that animal studies cannot provide real clinical information as described by self-reports in humans. As mentioned earlier and in the abstract, on November 23rd, 2017, evidence for our concerns was discovered [50]

In essence, although nonhuman primate brains are similar to our own, the disparity between other primates and those of human cognitive abilities tells us that surface similarity is not the whole story. Sousa et al. [50] small case found various differentially expressed genes, to associate with pleasure related systems. Furthermore, the dopaminergic interneurons located in the human neocortex were absent from the neocortex of nonhuman African apes. Such differences in neuronal transcriptional programs may underlie a variety of neurodevelopmental disorders.

In simpler terms, the system controls the production of dopamine, a chemical messenger that plays a significant role in pleasure and rewards. The senior author, Dr. Nenad Sestan from Yale, stated: “Humans have evolved a dopamine system that is different than the one in chimpanzees.” This may explain why the behavior of humans is so unique from that of non-human primates, even though our brains are so surprisingly similar, Sestan said: “It might also shed light on why people are vulnerable to mental disorders such as autism (possibly even addiction).” Remarkably, this research finding emerged from an extensive, multicenter collaboration to compare the brains across several species. These researchers examined 247 specimens of neural tissue from six humans, five chimpanzees, and five macaque monkeys. Moreover, these investigators analyzed which genes were turned on or off in 16 regions of the brain. While the differences among species were subtle, **there was** a **remarkable contrast in** the **neocortices**, specifically in an area of the brain that is much more developed in humans than in chimpanzees. In fact, these researchers found that a gene called tyrosine hydroxylase (TH) for the enzyme, responsible for the production of dopamine, was expressed in the neocortex of humans, but not chimpanzees. As discussed earlier, dopamine is best known for its essential role within the brain’s reward system; the very system that responds to everything from sex, to gambling, to food, and to addictive drugs. However, dopamine also assists in regulating emotional responses, memory, and movement. Notably, abnormal dopamine levels have been linked to disorders including Parkinson’s, schizophrenia and spectrum disorders such as autism and addiction or RDS.

Nora Volkow, the director of NIDA, pointed out that one alluring possibility is that the neurotransmitter dopamine plays a substantial role in humans’ ability to pursue various rewards that are perhaps months or even years away in the future. This same idea has been suggested by Dr. Robert Sapolsky, a professor of biology and neurology at Stanford University. Dr. Sapolsky cited evidence that dopamine levels rise dramatically in humans when we anticipate potential rewards that are uncertain and even far off in our futures, such as retirement or even the possible alterlife. This may explain what often motivates people to work for things that have no apparent short-term benefit [51]. In similar work, Volkow and Bale [52] proposed a model in which dopamine can favor NOW processes through phasic signaling in reward circuits or LATER processes through tonic signaling in control circuits. Specifically, they suggest that through its modulation of the orbitofrontal cortex, which processes salience attribution, dopamine also enables shilting from NOW to LATER, while its modulation of the insula, which processes interoceptive information, influences the probability of selecting NOW versus LATER actions based on an individual’s physiological state. This hypothesis further supports the concept that disruptions along these circuits contribute to diverse pathologies, including obesity and addiction or RDS.

#### 2 – No intent-foresight distinction – if I foresee a consequence, then it becomes part of my deliberation since its intrinsic to my action

#### 3 – Actor spec – governments lack wills or intentions and inevitably deals with tradeoffs – outweighs because agents have differing obligations.

#### 4 – No act omission distinction – choosing not to act is an action in of itself since you had to make an active decision to omit. Walking past a drowning baby and choosing not to save it is a cognitive decision you were faced with and you actively decided to keep walking b) warranting a distinction gives agents the permissible choice of omitting from any ethical action since omissions lack culpability.

#### No calc indicts – a) no philosophy actually says that consequences don’t matter at all since otherwise it would indict every theory since they use causal events to understand how their ethics have worked in the past and through the justification of premises b) we don’t need consequences – winning hedonism proves we’re the only one with impacts to it which means risk of offense framing is sufficient c) they’re blippy nibs that set the aff at an unfair advantage since they only have to win one while we have to beat them all – voting issue for fairness

#### Extinction first –

#### 1 – Forecloses future improvement – we can never improve society because our impact is irreversible

#### 2 – Turns suffering – mass death causes suffering because people can’t get access to resources and basic necessities

#### 3 – Moral obligation – allowing people to die is unethical and should be prevented because it creates ethics towards other people

#### 4 – Objectivity – body count is the most objective way to calculate impacts because comparing suffering is unethical

#### 5 – Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it

## 2

#### Business confidence is high now and is leading to economic growth

Conference Board 5/19 Conference Board. “The Conference Board Measure of CEO Confidence™.” CEO Confidence Hit All-Time High in Q2 | The Conference Board, 19 May 2021, www.conference-board.org/research/CEO-Confidence/.

Another Quarter of Soaring Optimism Leaves CEO Confidence at Highest Level since Measure began in 1976 The Conference Board Measure of CEO Confidence™ in collaboration with The Business Council improved further in the second quarter of 2021, following a sharp increase in Q1. The measure now stands at 82, up from 73. This marks the highest level of CEO confidence recorded since the measure began in 1976. (A reading above 50 points reflects more positive than negative responses.) CEOs’ assessment of current economic conditions rose substantially, after slightly moderating last quarter. In Q2, 94 percent said conditions are better compared to six months ago, up from 67 percent in Q1. CEOs also expressed greater optimism about conditions in their own industries, with 89 percent reporting better conditions compared to six months ago, up from 68 percent in Q1. Historically high expectations in Q1 climbed even further in Q2: 88 percent of CEOs expect economic conditions to improve over the next six months, up from 82 percent. “This quarter’s survey marks a remarkable turnaround from a year ago—when CEO confidence reached a nadir of 34 at the height of COVID-19’s first wave,” said Dana Peterson, Chief Economist of The Conference Board. “For CEOs, the challenge of navigating a once-in-a-century pandemic is receding, as the focus turns to hiring and investing to compete in an economy poised to see the fastest growth in decades over the months ahead.” In the job market, the pace of hiring is expected to accelerate over the next 12 months, with 54 percent of CEOs expecting to expand their workforce, up from 47 percent in Q1. While the outlook for wages was virtually unchanged in Q2, more CEOs are reporting difficulty finding qualified workers—57 percent in Q2, up from 50 percent in Q1. “Optimism is surging in C-suites and boardrooms across industries,” said Roger W. Ferguson, Jr., Vice Chairman of The Business Council and Trustee of The Conference Board. “For CEOs, the challenge is no longer staying afloat, but keeping pace—in particular, with a likely resurgence of the labor shortages experienced before the pandemic.” Current Conditions CEOs’ assessment of general economic conditions rose sharply in Q2: 94% of CEOs reported economic conditions were better compared to six months ago, up from 67% in Q1. Only 2% said conditions were worse, down from 10%. CEOs were similarly optimistic about conditions in their own industries in Q2: 89% of CEOs reported that conditions in their industries were better compared to six months ago, up from 68%. Only 4% said conditions in their own industries were worse, down from 8%. Future Conditions Expectations about the short-term economic outlook improved further in Q2: 88% percent of CEOs said they expect economic conditions to improve over the next six months, up from 82% in Q1. Only 1% expect conditions to worsen, down from 7%. CEOs’ expectations regarding short-term prospects in their own industries also improved in Q2: 81% of CEOs expect conditions in their own industry to improve over the next six months, up from 78%. Only 4% expected conditions to worsen, down from 7%. Capital Spending, Employment, Recruiting, and Wages The survey also gauged CEOs’ expectations about four key actions their companies plan on taking over the next 12 months. Capital Spending: 47% of CEOs expect to increase their capital budgets in the year ahead, up from 45% in Q1. Employment: 54% of CEOs expect to expand their workforce, up from 47% in Q1. Hiring Qualified People: 57% of CEOs report some problems attracting qualified workers, up from 50% in Q1. Notably, 28% report difficulties that cut across the organization, rather than concentrated in a few key areas—up from 18% in Q1. Wages: 37% of CEOs expect to increase wages by 3% or more over the next year, virtually unchanged from 36% in Q1.

#### A shift towards pro union policies and helping bargaining power during worker strikes cause businesses to fail and undermine confidence due to a sudden shift left by the current administration.

John DiNardo University of Michigan, Ann Arbor and NBER David S. Lee UC Berkeley and NBER https://www.princeton.edu/~davidlee/wp/unionbf.pdf

It is widely understood that unions raise the cost of labor by raising members’ wages above market rates.1 Unions also impose other costs on employers - limiting discretion in hiring and firing, for example, and altering the structure of pay differentials across skill groups. A key question for understanding the social costs of unionization is whether the wage premiums and other costs of unionism create large or small distortions in the allocation of labor.2 These distortions can take the form of reduced employment at unionized firms, or most dramatically, an accelerated pace of business failures. The potentially adverse effects of unions on firm survival are acknowledged by employers and employees alike. During union organizing drives, firms routinely threaten to close a plant if the union drive is successful [Bronfenbrenner 2000]. Employees seem to take these threats seriously: the risk of plant closure is cited as the leading cause of union withdrawal from organizing attempts [Commission for Labor Cooperation 1997]. Such risks are arguably higher now, in light of rapidly expanding trade with low-wage countries such as China and Mexico, and increasing international capital mobility.

#### Business confidence dictates growth

McQuarie 16 McQuarie, Economic risk consulting firm, 5 factors that impact business and consumer confidence, 25 May 2016 <https://www.macquarie.com/au/advisers/expertise/market-insights/business-consumer-confidence-australia> TR

In 1933, US President Franklin D. Roosevelt pointedly noted that "confidence... thrives on honesty, on honour, on the sacredness of obligations, on faithful protection and on unselfish performance. Without them it cannot live". And over 80 years later these words still resonate with political, policy and business leaders as they grapple with increasingly fickle cycles of consumer and business confidence. To be fair, global policymakers are currently confronting a perplexing set of factors in the aftermath of the financial crisis and major central banks' deployment of unconventional monetary policy via unprecedented asset purchase programs and negative interest rates. Arguably, the crisis of 2008-09 and its legacy continue to cast some doubt on the effectiveness and accountability of policymaking institutions in the major developed economies. Confidence levels in the major developed economies have also been influenced by concerns about the socioeconomic consequences of the unrelenting pressure for ‘structural change’ in an increasingly competitive global economic system. At the household/consumer level, a key concern has been persistently high levels of unemployment faced in some regions and subdued income growth in developed economies, while for businesses, sluggish demand and highly competitive operating conditions continue to influence perceptions of resilience and confidence. Consequently, as the global economy moves into the second half of 2016 it is important to understand the causes and consequences of shifts in consumer and business confidence and the possible implications for the business cycle and macroeconomic policy settings. Confidence may be a case of shifting sands With policymakers in the major economies working hard to restore and maintain confidence levels and shifts in sentiment indicators playing a key role in risk assessments of investors, it is worthwhile to consider the various influences on this qualitative economic measure. Our analysis of the various indicators of consumer and business confidence that are regularly published highlight several common factors that have the potential to cause marked shifts in sentiment; including: Changes in interest rates and/or exchange rates, particularly if they are rapid, large and unexpected Swings in the business cycle and associated movements in employment/unemployment levels and business investment intentions Shifts in the relative prices of nondiscretionary goods and services, notably petrol, healthcare, education and utilities prices Large external economic and/or financial shocks, such as the financial crisis of 2008/09 and the Eurozone sovereign debt crisis of 2010/11 Announced policy shifts in the stance of government fiscal policy, including large structural spending cuts or increases/decreases in taxation rates. Interestingly, it is widely accepted by economists that the financial economy operating via interest rates and exchange rates acts as a buffer for the real economy in terms of external shocks, but this effect can often be magnified due to the out-sized impact on consumer and business confidence. For example, Australia was not directly affected by either the financial crisis or the subsequent Eurozone debt crisis, but on both occasions a considerable upsurge in general anxiety and slumping confidence were recorded. Australian households and businesses reported concerns about the economy's vulnerability in the face of unprecedented upheaval in global financial markets. Not surprisingly, in some quarters concerns continue to be expressed that small open economies such as Australia and New Zealand often experience disproportionate reactions to economic and financial disturbances that emanate from much larger and more complex economies, including the US, the Eurozone, Japan, and China. To be sure, we are not suggesting that economic policymakers should maintain inappropriate macro policy settings in order to buoy consumer and business confidence. Rather, the announcement and implementation of shifts in key macro policy needs to be sensitive to the psychological impact on households and firms in the real economy. It is the need to manage psychology that has led the major central banks to bolster their policy 'forward guidance' activities, as they fine-tune strategies to eventually end a period of extraordinary monetary policy accommodation. It's not all in the mind as sentiment shapes activity Although it is often said that 'confidence can turn on a dime', this should not be taken as diminishing the role of sentiment in shaping economic activity and in turn the path of business cycles. The power of confidence was patently demonstrated in late 2008 with the collapse of Lehman Brothers and the subsequent slump in global consumer and business sentiment. This was accompanied by an unprecedented collapse in global trade volumes, industrial production, investment and importantly risk-taking. It is estimated that in the major developed economies, including Australia and New Zealand, consumer spending contributes up to two thirds of aggregate demand, based on income levels or changes, buying and spending trends, and underlying economic conditions. If we consider credit and liquidity to be the life-blood of the economic system, then it is reasonable to regard confidence as the oxygen that sustains the system. So heightened economic anxiety and languishing confidence will have manifest impacts on the health and wellbeing of the economy, often determining whether or not it can reach and sustain its long term potential rates of growth. Recent experience indicates that there are several important consequences of low and declining levels of confidence, including: unusually high household and business savings rates, including the hoarding of capital by financial and nonfinancial firms subdued nominal income growth and tepid private sector credit growth widespread household deleveraging declining business investment spending and weak employment growth dominance of short-term thinking and absence of longer-term strategic activity risk of a decline in the economy’s structural growth rate and associated deterioration in productivity growth. Therefore, economies facing 'crises of confidence' may find if this prevails it will undermine productive capacity and prove to be 'growth limiting'. In this event, it could lead to deterioration in living standards as the base of economic activity gradually contracts and the willingness and capacity to engage in risk-taking is curtailed.

#### Econ decline definetly causes Nuclear War

Tønnesson 15 Stein Tønnesson, PhD from the University of Oslo, is research professor at the Peace Research Institute Oslo(PRIO), adjunct professor at the Department of Peace and Conflict Research,Uppsala University where he leads a six-year research programme on the East AsianPeace, associate editor for Asia in the Journal of Peace Research, International Area Studies Review, 2015, Vol. 18(3), “Deterrence, interdependence and Sino–US peace”, 297–311

Several recent works on China and Sino–US relations have made substantial contributions to the current understanding of how and under what circumstances a combination of nuclear deterrence and economic interdependence may reduce the risk of war between major powers. At least four conclusions can be drawn from the review above: first, those who say that interdependence may both inhibit and drive conflict are right. Interdependence raises the cost of conflict for all sides but asymmetrical or unbalanced dependencies and negative trade expectations may generate tensions leading to trade wars among inter-dependent states that in turn increase the risk of military conflict (Copeland, 2015: 1, 14, 437; Roach, 2014). The risk may increase if one of the interdependent countries is governed by an inward-looking socio-economic coalition (Solingen, 2015); second, the risk of war between China and the US should not just be analysed bilaterally but include their allies and partners. Third party countries could drag China or the US into confrontation; third, in this context it is of some comfort that the three main economic powers in Northeast Asia (China, Japan and South Korea) are all deeply integrated economically through production networks within a global system of trade and finance (Ravenhill, 2014; Yoshimatsu, 2014: 576); and fourth, decisions for war and peace are taken by very few people, who act on the basis of their future expectations. International relations theory must be supplemented by foreign policy analysis in order to assess the value attributed by national decision-makers to economic development and their assessments of risks and opportunities. If leaders on either side of the Atlantic begin to seriously fear or anticipate their own nation’s decline then they may blame this on external dependence, appeal to anti-foreign sentiments, contemplate the use of force to gain respect or credibility, adopt protectionist policies, and ultimately refuse to be deterred by either nuclear arms or prospects of socioeconomic calamities. Such a dangerous shift could happen abruptly, i.e. under the instigation of actions by a third party – or against a third party. Yet as long as there is both nuclear deterrence and interdependence, the tensions in East Asia are unlikely to escalate to war. As Chan (2013) says, all states in the region are aware that they cannot count on support from either China or the US if they make provocative moves. The greatest risk is not that a territorial dispute leads to war under present circumstances but that changes in the world economy alter those circumstances in ways that render inter-state peace more precarious. If China and the US fail to rebalance their financial and trading relations (Roach, 2014) then a trade war could result, interrupting transnational production networks, provoking social distress, and exacerbating nationalist emotions. This could have unforeseen consequences in the field of security, with nuclear deterrence remaining the only factor to protect the world from Armageddon, and unreliably so. Deterrence could lose its credibility: one of the two great powers might gamble that the other yield in a cyber-war or conventional limited war, or third party countries might engage in conflict with each other, with a view to obliging Washington or Beijing to intervene.