### Disclosure

Interpretation: Debaters must disclose the aff at least 30 minutes before the round – to clarify, this can be informal disclosure  
Violation: the aff they disclosed on the wiki isn’t the one they read- it’s only like ¼ the length and is missing all of the framing, the underview, everything after the yamunan card- and they didn’t respond to emails- I’ll send the doc and screenshots

Graphical user interface, text

Description automatically generated

standards

1 - forces us to rely on generics rather than strategies tailored to the affirmative— kills nuanced clash since every debate is the same.

2- they get infinite time to frontline their aff, while I come into the round guessing – kills fairness

3 - discourages cheap shot aff’s. If the aff isn’t inherent or easily defeated by 20 minutes of research, the case should lose- surprise factor affs incentivize cases that are as fringe as possible instead of well-researched realistic affirmatives- incentivizes useless education

Voters

1. fairness -we can’t determine truth of arguments if they’re not tested fairly
2. education -only reason why schools fund debate
3. clash- key to learning about policymaking, only portable skill we get from debate

Critical thinking is non-unique because people would still have to come up with answers to the aff before the round.

Drop the debater on disclosure- the theory is on the entire aff so dta means they lose

Competing interps, reasonability invites arbitrary judge intervention

NO RVI A. incentives good theory debaters to bait abuse b- chills debaters from running theory on good teams even if they deserve it c- illogical, you don’t win for proving you’re fair

### Shell- RTS LARP

#### Welcome to the age of acceleration. Crises of reification are tearing apart the way we experience and our present theories aren’t gonna save us. Only Daoism can defeat the cycle

Wenning, Mario (2011), "Daoism as Critical Theory", Comparative Philosophy, ,

https://scholarworks.sjsu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1017&context=comparativephilosophy. Accessed on July 15, 2021. r0w@n

Pathologies are social and psychological deformations on a structural level manifesting themselves in social institutions, individual patterns of beliefs, motivations and practices. The pathologies which critical theory has been diagnosing can be summarized, following Marx, Lukacs and Weber, as a combination of reification, disenchantment and acceleration. In the process of increasingly understanding intersubjective-, self- and world-relationships primarily from the perspective of exchanging equivalent commodities on a market governed increasingly, and sometimes exclusively, by a competition for these commodities, individuals become systematically estranged from the objects they produce, the process of production, themselves, and from the community of fellow human beings.12 The pathology of reification (Verdinglichung) arising from the exchange principle governing ever more dimensions of society has been analyzed, drawing on the early Marx and Lukacs, from a variety of perspectives.13 Originally reification referred to the process of making singular human beings and experiences similar and exchangeable by abstracting from their unique qualities. While the concept seemed outdated for a long time due to its implicit assumption of a human essence from which one could become estranged, it made an astonishing comeback. Whether it is a critique of the reification/distortion of communication,14 the reification of relationships of intersubjective recognition,15 the reification of gender roles16 or the 12 Karl Marx (1973, 108-111). 13 See for example Axel Honneth, (2005). 14 Jürgen Habermas (1984). 15 Axel Honneth (1996). 57 Comparative Philosophy 2.2 (2011) WENNING reification of conceptions of the self,17 what is being criticized are relationships primarily controlled by a fixed logic of instrumental reason and strategic bargaining processes rather than mutual understanding, recognition, care for the self, love and other preconditions of leading a good life within the constraints of justice. Apart from the attempts to shed light on reification as a major form of pathology in modern societies, it is a significant success of recent work in critical social theory to emphasize that not all pathologies of modernity can be reduced to intersubjective pathologies of communication and reification.18 People in late modern societies do not just suffer from being used rather than understood or being invisible rather than recognized. They also suffer from what Max Weber called ‗disenchantment‘ (Entzauberung). In the process of increased rationalization, traditional sources of meaning that were sedimented in inherited religious traditions, social institutions and customs have lost their power in orienting lives. Finally, **the process that reification and the vanishing of resources of meaning have been engaged in is one of an increasing acceleration** (Beschleunigung) in which, as Marx puts it, ―everything that is solid melts into the air‖. We witness a progressively increasing speed not only of technological innovation, but of social change since the late medieval period. While there was an intergenerational speed of change in the early modern period, and a generational speed of change during classical and high modernity, **late modernity is characterized by an intragenerational speed of change** in which **the basic parameters of coordinating one‘s life change within a lifetime.** In this latest stage of acceleration, the only thing that is certain is that what was taken to be certain today might not be certain tomorrow.19 This acceleration is both subjectively experienced and corresponds to objective modes of accelerated life ranging from processing information, the transportation of goods and people, voting behavior to the change of significant others and professions. Increased change of environments and values undermines traditional forms of identity formation since actors are forced to constantly reassess and readjust their forms of life, practices and sets of convictions. All three pathologies constitute forms of social injury. While the psychological impact of **reification leads to systematic forms** of forced inclusion or exclusion, **of being restricted to or being left out of fixed identities**, and the process of disenchantment corresponds to a sense of existential absurdity in a world devoid of binding resources of meaning, the pressures of increasing acceleration are experienced in terms of existential exhaustion and anxiety. As a consequence, there is an increased sense of superfluousness and being antiquated, a fear to be left behind in, or fall outside of the rushing hamster's wheel of late modern societies. . However distinct these pathologies might appear, it is crucial to notice that there is a close linkage between these three briefly outlined pathological tendencies of modern societies. Not only are reification, disenchantment and acceleration historically connected, they also imply each other on a conceptual level. Reification consists in seeing the world primarily from the vantage point of being a means or a toolbox from which means can be utilized in order to bring about a desired end. In this objectifying process, the end justifies the variable means and is the only factor taken to be intrinsically valuable. This end, then, is understood as not presently realized but as a future possibility the reality of which depends on the implementation of one's plan of action. Bernard Williams, the eminent British moral philosopher, stresses this point by arguing that without projecting an aim into the future, life would become meaningless. He argues for ―the idea of a man's ground projects providing the motive force which propels him into the future, and gives him a reason for living.‖20 If it were the case that our very existence would be safeguarded only as long as we intentionally pursue future-directed goals and projects in increasingly rationalized ways, it would mean that actors would be doomed to be increasingly alienated from a present they could at best regard as offering instrumentally useful, but intrinsically insignificant means for a supposedly meaningful future. Seen from the temporal horizon of the actor engaged in instrumental reasoning and action, the present events, actions, objects and subjects lack any intrinsic value. They are regarded as merely ―useful for‖ certain projects rather than significant in virtue of what they are. The moment a project is realized, the satisfaction vanishes since it is not futural anymore. By presupposing such a restricted conception of projective action as the reason for living, the present environment an actor navigates in is transformed into pure immanence in which prediction becomes possible to the point of resembling an analytic judgment: assuming that we know what we want, and if we can do what we want while nobody keeps us from doing it, what we want will become realized. Novelty is being reduced to the discovery of new implications of what has already been familiar. Effort is generated once we see the end of our action as external to our spontaneously generated attachments. It grows out of the attempt to realize the stipulated end in ever more innovative, efficient and predictable ways in which spontaneity is, at best, forced towards a goal. The goal at which effort is directed often drops out of focus during the acceleration process or it loses its appeal. It seems external to the actor who has been trapped in a means-ends apparatus. This rationalization process increasingly becomes independent from the specificity of ends pursued and impossible to get out of. With every rationalized act the actor moves deeper into the quicksand of a world of suppressed spontaneity. The consequence of this seemingly autonomous rationalization process famously described by Weber as an ―iron cage‖ is that the present is being downgraded as insignificant on its own terms when compared to the future gains one promises oneself as the payoff of one's actions. Processes of innovation become the norm and speed up because actors hope to do and achieve ever more goals in increasingly shorter segments of emptied time. Actors rush to a future, which can in principle never be actualized. Paul Virillio fittingly describes this blind acceleration process of chasing structurally elusive future goals in increasingly higher speeds of innovation adequately as a ―rushing standstill‖. From within the ―iron cage‖ of modernity true innovation, which would have to be different from mere acceleration or enhancement and would require deliberating about alternative present ends, seems increasingly impossible.21 The new is transfigured into the only variable that is to be expected. Instrumental action as the reified forgetfulness of the meaning resources of the present for the sake of the projected future thus seems without alternative. The consequence is what Hermann Lübbe refers to as a ‗Gegenwartsschrumpfung‘, a continuing shrinking of the present under the complimentary pressures of the tendencies of melancholic musealization of irretrievably lost pasts and forced innovation to run after structurally elusive futures.22 The dilemma with which critical theorists see themselves confronted is that whatever emancipatory tendencies – be they introduced as forms of resistance, mutual understanding, recognition etc. – are being proposed as means for a future end, instrumental action is reenacted under a normative guise and the domination of the future over the rest of time is thus further sedimented. As soon as instrumental actors propose or just point to emancipatory forms of action, they replicate and reenact the same temporal logic that it originally diagnosed as the problem of modernity, i.e., the belief that the future can be mastered through acts of projective planning. The problem of this projective planning mentality is not that things often turn out differently than planned, but that the actor sidesteps and thereby undermines the significance of the present and sees it simply as something to be used for future ends. In other words, by downgrading the present including its modes of action to being "for the sake of the future," critical theory denigrates the present to the status of a prefuture, a state of emptiness that is used as a resource rather than lived in. A theory exposing and explaining social pathologies is keen on pointing to the inescapable mechanisms preventing the emancipatory use of reason through action. Such an exclusive focus on the diagnosis and emergence of pathologies coincides with developing an ethics of melancholy that emphasizes the inescapable specter of instrumental reason. Looking back in a melancholy state of mind over the long history of failed revolutions, it only sees what has been irretrievably lost in the wake of histories of catastrophes.23 The present is now seen as an appendix to a past larger than life, an after-past. By replacing the search for an alternative mode of present potentiality with a focus on the traumatic experiences of history, it forecloses the possibility of emancipatory action in the present and thereby reverses the temporal logic of modernity. By replacing the infatuation of the projected future over the present, a new domination – that of the past over the present – is being introduced and sedimented. While the former domination – that of the future over the present - corresponded to forms of blind activism, the latter – that of the past over the present - leads to a state of passivity, an inhibition, which replaces the engagement with the present for the contemplation of mnemonic art. The consequence is not a liberation of the past (which is in principle impossible) or a liberation of the present, but an extension of the temporal pressure put on the present. While the classical modernists only had to justify themselves with respect to the future, late modernists also have to justify themselves with respect to the past. This detour was intended to show that the instrumental actor finds himself in a dilemma that seems impossible to get out off. The shrinking of the present arising out of instrumental action constitutes a theoretical as well as practical impasse. A transcultural engagement with Daoism understood as another critical theory could turn out to be fruitful given that it emerged within a cultural context in which instrumental action has not been the only or even primary form of action. First, however, it needs to be asked whether it is at all legitimate to interpret Daoism as another critical theory. In the second part of the paper I will first show that Daoism can be understood as a critical theory and then discuss whether it offers an insight that could overcome the uneasy relationship between critical theory and emancipatory action with a focus on the present. The goal is to show that the proto-Daoists Lao Zi and Zhuang Zi, commonly referred to as "Lao-Zhuang", provide a promising path which points to an alternative approach of addressing the vexing problem of instrumental action expressing itself in the pathologies of reification, disenchantment and acceleration. At the risk of engaging in anachronistic hermeneutics by applying texts from a different tradition which date back two and a half-millennia, the benefits of tapping rich conceptual sources providing a new insight into entrenched philosophical preconceptions seem overwhelming. Compared to European traditions, Daoism's long history of addressing phenomena of reification and change in theoretical, as well as practical ways, provides an immense richness not only for a reorientation of critical theory, but also in terms of envisioning emancipatory practices. The insight into the fluidity of social dynamics and the fluid subjectivity of actors anticipates many of the developments of late modern societies. At the same time Daoism offers us correctives to these developments. The early Daoist acknowledgment of the value of idling and uselessness, for example, allows us to level a critique of the pathologies of reification, disenchantment and acceleration deriving from a reduction of action to instrumental action. A critical theory in the spirit of Daoism would not simply disclose pathologies. It would also offer constructive resources which allow us to critically address and, as far as possible, overcome these pathologies without providing yet another reifying project that sells out on the potentiality of the present for the sake of the future.

#### The world is constantly changing, flowing, and becoming – action is only coherent in the specific circumstances of the present

Ames and Hall 10. Roger Ames and David Hall (Ames is a Canadian philosopher at the University of Peking. Hall was a professor of philosophy at the University of Texas), 2010, “Daodejing: Making this Life Significant,” Ballantine Books, I have a pdf, sean!

We begin our argument for translating Daodejing as “Making This Life Signicant” from Daoist cosmology. Taking a closer look at the interpretation of both the title and the content of the Daodejing as “The Classic of This Focus (de page24image2425456) and Its Field (dao page24image2425040),” we might first ask what does the expression “this focus” mean? The Daoist correlative cosmology begins from the assumption that the endless stream of always novel yet still continuous situations we encounter are real, and hence, that there is ontological parity among the things and events that constitute our lives. As a parody on Parmenides, who claimed that “only Being is,” we might say that for the Daoist, “only beings are,” or taking one step further in underscoring the reality of the process of change itself, “only becomings are.” That is, the Daoist does not posit the existence of some permanent reality behind appearances, some unchanging substratum, some essential denying aspect behind the accidents of change. Rather, there is just the ceaseless and usually cadenced flow of experience. In fact, the absence of the “One behind the many” metaphysics makes our uncritical use of the philosophic term “cosmology” to characterize Daoism, at least in the familiar classical Greek sense of this word, highly problematic. In early Greek philosophy, the term “kosmos” connotes a clustered range of meanings, including arche (originative, material, and efficient cause/ultimate undemonstrable principle), logos (underlying organizational principle), theoria (contemplation), nomos (law), theios (divinity), nous (intelligibility). In combination, this cluster of terms conjures forth some notion of a single-ordered Divine3 universe governed by natural and moral laws that are ultimately intelligible to the human mind. This “kosmos” terminology is culturally specfiic, and if applied uncritically to discuss the classical Daoist worldview, introduces a cultural reductionism that elides and thus conceals truly significant differences. The Daoist understanding of “cosmos” as the “ten thousand things” means that, in effect, the Daoists have no concept of cosmos at all insofar as that notion entails a coherent, single-ordered world which is in any sense enclosed or denied. The Daoists are, therefore, primarily, “acosmotic” thinkers.

#### Labor is unfulfilling and temporal- the only solution is Daoist deferential politics

Ames and Hall 10. Roger Ames and David Hall (Ames is a Canadian philosopher at the University of Peking. Hall was a professor of philosophy at the University of Texas), 2010, “Daodejing: Making this Life Significant,” Ballantine Books, I have a pdf, r0w@n

“Foreknowledge” is tinsel decorating the way, And is the first sign of ignorance. It is for this reason that persons of consequence: Set store by the substance rather than the veneer And by the fruit rather than the flower. Hence, eschewing one they take the other. The moral precepts described in the first two stanzas emerge as objects of reverence, but as hallowed as they might become, they are anemic when compared to the love and life of concrete, spontaneous feelings. It is the “substance” and the “fruit”—the passionate experience of life itself—rather than a catechism of bloodless ethical principles, that is the real site of knowing. Such felt knowing is an ongoing process of focal and field awareness—of way-making—that can only be sustained with indefatigable resolution. Indeed, it is not an easy business to stay focused. Even though the Daodejing’s teachings on how to cultivate the most effective disposition for making one’s way in the world could not be put in more straightforward terms, still “when the very best scholars learn of way-making they are just barely able to keep to its center” (chapter 41). Were we to search for something like a central insight that defines the Daoist sensibility, we might discover that a “single thread” pervades the text. The central focus of the Daoist way of thinking is the decisive role of deference in the establishment and preservation of relationships. As we have said above, integrity in a processual worldview is not being one, but becoming one in the consummatory relationships that one is able to achieve within a context of environing particulars. Deference involves a yielding (and being yielded to) grounded in an acknowledgment of the shared excellence of particular foci (de) in the process of one’s own self- cultivation. Deferential acts require that one put oneself literally in the place of the other, and in so doing, incorporate what was the object of deference into what is one’s own developing disposition. And one’s own disposition thus fortified becomes available as a locus of deference for others. In Confucianism, self is determined by sustained effort (zbong page50image65796320) in deferential transactions (shu page50image65788832) guided by ritually structured roles and relations (li page50image65786128) that project one’s person outward into society and into culture. Such a person becomes a focus of the community’s deference (junzi page50image65783840) and a source of its spirituality (shen ). Daoism, on the other hand, expresses its deferential activity through what we are calling the wu-forms. The three most familiar articulations of this pervasive sensibility are: wuwei page50image65857072, wuzhi page50image65845888, and wuyu page50image65634304. These are, respectively, noncoercive actions in accordance with the de (“particular focus”) of things; a sort of knowing without resort to rules or principles; and desiring which does not seek to possess or control its “object.” In each of these instances, as in the case of Confucian shu, it is necessary to put oneself in the place of what is to be acted in accordance with, what is to be known, or what is to be desired, and thus incorporate this perspective into one’s own disposition. Our chief aim here is to demonstrate how this explicitly Daoist understanding of deferential activity presupposes a focus-field model of self. Given our discussion of the inseparability of feeling and thinking —the affective and the cognitive—in the Daoist heart-and-mind (xin), the conflict associated with the self that the Daoist sage must overcome cannot be a struggle among some compartmentalized rational, appetitive, and emotional faculties. Indeed, given the relational and unpartitioned model of the self characterized by xin, it is dicult to imagine how there could be anything like an internal dynamics that would be a source of agitation. It is unlikely that we would nd Hamlets or St. Pauls prominent among the Daoists. If the problematic of unrealized selfhood does not entail a self divided against itself, what is the source and the nature of the disturbance that the cultivation of the Daoist disposition is meant to overcome? If it is not referenced primarily within an individuating soul, it can only be a disturbance in the relationships that constitute the context of self-consummation. Said another way, if a person is page50image65634512 not in fact constituted by some essential, partitioned “soul,” but is rather seen as dynamic pattern of personal, social, and natural relationships, agitation must arise as a consequence of poor management of these constitutive roles and relationships. Hence, agitation in the heart-and-mind is not narrowly “psychological,” but is more accurately conceived of as of broad ethical concern: How should we act and what should we do? To summarize the three most prominent examples of the wu-forms that we have discussed in more detail elsewhere,20 wuwei page51image65652976, often translated (unfortunately) as “no action” or “non-action,” really involves the absence of any course of action that interferes with the particular focus (de page51image65653184) of those things contained within one’s field of influence. Actions uncompromised by stored knowledge or ingrained habits are relatively unmediated: they are accommodating and spontaneous. As such, these actions are the result of deferential responses to the item or the event in accordance with which, or in relation to which, one is acting. These actions are ziran page51image65653392, “spontaneous” and “self-so-ing,” and as such, are nonassertive actions. It is not through an internal struggle of reason against the passions but through “acuity (ming page51image65653600)”—a mirroring of the things of the world as they are in their interdependent relations with us—that we reach a state in which nothing among all of the myriad of “the goings on” in the world will be able to agitate our hearts-and-minds, and we are able to promote the flourishing of our world. In other words, we defer in attaining integrity with those things that contextualize us, establishing a frictionless equilibrium with them. And it is this state of achieved equilibrium that is precisely the relationship most conducive to symbiotic growth and productivity. The Daoist sages in Zhuangzi are described in such terms: The stillness of the sages is not simply a matter of their saying: “Stillness is good!” and hence they are still. Rather, they are still because none of the myriad things are able to agitate their hearts-and-mind. When water is still, it illuminates one’s whiskers and eyebrows, and in its placidity, it provides a standard so that skilled artisans can take their measure from it. If the stillness of water provides illumination, how much more so one’s spirit. The stillness of the heart-and-mind of the sage makes it mirror to the whole world and the looking glass for all of the myriad things.21 The notion of jing page52image65681008—stillness, tranquillity—that is often used to characterize this posture, far from being simple passivity, is an ongoing, dynamic achievement of equilibrium that requires constant monitoring and adjustment. It is important to remember that all correlative pairs entail their opposites in the sense that jing is “tranquillity-becoming-agitated.” Thus, tranquillity (jing) stands in a dominant relationship in its partnership with agitation (dong page52image65681216); it does not negate or exclude its opposite. The same qualification has to be brought to bear on other familiar pairs that might otherwise mislead us: for example, emptiness (xu page52image65681424) and fullness (shi page52image65681632), and clarity (qing ) and turbidity (zhuo page52image65681840). Wuzhi , often translated as “no-knowledge,” actually means the absence of a certain kind of knowledge—the kind of knowledge that is dependent upon ontological presence: that is, the assumption that there is some unchanging reality behind appearance. Knowledge grounded in a denial of ontological presence involves “acosmotic” thinking: the type of thinking that does not presuppose a single-ordered (“One behind the many”) world, and its intellectual accoutrements. It is, therefore, unprincipled knowing. Such knowing does not appeal to rules or principles determining the existence, the meaning, or the activity of a phenomenon. Wuzhi provides one with a sense of the de of a thing— its particular uniqueness and focus— rather than yielding an understanding of that thing in relation to some concept or natural kind or universal. Ultimately, wuzhi is a grasp of the daode page52image65682048relationship of each encountered item that permits an understanding of this particular focus (de) and the eld that it construes. Knowledge, as unprincipled knowing, is the acceptance of the world on its own terms without recourse to rules of discrimination that separate one sort of thing from another. Rules of thumb, habits of mind and action, established customs, fixed standards, received page52image65682256page52image65682464 methods, stipulated concepts and categories, commandments, principles, laws of nature, conventions—all of these prejudices require us to intervene and “welcome things as they come and escort them as they go,” resulting in what Steve Goldberg has described as “a hardening of the categories.” Having stored past experience and organized it in terms of fixed standards or principles, we then recall, anticipate, and participate in a world patterned by these discriminations. Sages, however, mirror the world, and “neither see things off nor go out to meet them.” As such, they “respond to everything without storing anything up.” They mirror the world at each moment in a way that is undetermined by the shape of a world that has passed away, or by anticipations of a world yet to come. As the Daodejing asks in chapter 10: In scrubbing and cleansing your profound mirror Are you able to rid it of all imperfections? In loving the common people and breathing life into the state, Are you able to do it without recourse to wisdom? With nature’s gates swinging open and closed Are you able to remain the female? With your insight penetrating the four quarters Are you able to do it without recourse to wisdom? The Daoist project is neither passive nor quietistic. Water is the source of nourishment; the mirror is a source of light; the heart-and- mind is a source of transformative energy. To “know” as the mirror “knows” is not reduplicative, but is to cast the world in a certain light. Such performative “knowing” is for one to actively interpret and realize a world with healthy, productive effect. These metaphors for xin entail a presentation rather than a representation, a coordination rather than a correspondence. “Mirroring” then is best seen as synergistic and responsive, where all of the elements are in the stream and constitute a fluid interdependent continuity. Perhaps the best rendering of the term wuyu page53image65601536is “objectless desire.” Since neither noncoercive action nor unprincipled knowing can in the strict sense objectify a world or any element in it—that is, make discrete and independent objects out of one’s environing experience—the desiring associated with the Daoist sensibility is in the strictest sense “objectless.” The “enjoyments” associated with wuyu are possible without the need to dene, possess, or control the occasion of one’s enjoyment. Thus, wuyu, rather than involving the cessation and absence of desire, represents the achievement of deferential desire. Desire, based upon a noncoercive relationship (wuwei) with the world and a “mirroring” understanding (wuzhi) of it, is shaped not by the desire to own, to control, or to consume, but by the desire simply to celebrate and to enjoy. It is deference. Desire is directed at those things desirable because they stand to be desired. But those things which stand to be desired must themselves be deferential, which means that they cannot demand to be desired. For to demand to be desired is to exercise a kind of mesmerizing control over the desirer. In a world of events and processes in which discriminations are recognized as conventional and transient, desire is predicated upon one’s ability at any given moment to “let go.” It is in this sense that wuyu is a nonconstruing, objectless, desire. The Daoist problem with desire does not concern what is desired, but rather the manner of the desiring. Enjoyment for the Daoist is realized not in spite of the fact that one might lose what is desired, but because of this fact. The world is a complex set of transformative processes, never at rest. Wuhua page54image65654016, the metamorphosis of things (and not to be confused with the wu- forms), means that we can never pretend that what we seek to hold on to has any permanent status. In Daoism, transient desire is the only desire that lets things be, that does not construe the world in a certain manner, that does not seek to apply the brakes on a world of changing things. The key to an understanding of wuyu—indeed of all these wu- forms that comprise the Daoist disposition—lies in the contrast between “objects” and “objectivity.” Using Western epistemological terms, the thoughts about the world expressed in both the Zhuangzi and the Daodejing represent what we might call a realist perspective.22 Beyond the mediating confusions introduced by language, and by layers of our own distorted perceptions and tendentious categorizations, there is nevertheless, with properly Daoist qualifications, an “objectively” real world. Our task is to experience that world as “objectively” as possible. From the Daoist perspective, the problem begins when we insist that the “objective world” is a world made up of objects—namely, concrete, unchangeable things that we encounter as over against and independent of us; things which announce themselves to us by asserting “I object!” For the Daoist, the objective world cannot be objective in this sense because it is a constantly transforming flow of events or processes that belie the sorts of discriminations that would permit a final inventory of the furniture of the world. Paradoxically, for the Daoist the objective world is objectless. Sages envision a world of changing events that they can, for whatever reason, choose to freeze momentarily into a distinct pattern of discrimination, but that they recognize, when they see clearly, as being beyond such distinctions. For the Daoist, the consequence of this transformed vision is that knowing, acting, and desiring in the world are no longer based upon construal. Feeling ourselves in tension with objectified others can lead us to act in an aggressive or defensive manner in order to effect our will. Principles and fixed standards can lead us to construe the object of our knowledge by recourse to such principles. In this way, an item becomes one of a kind (rather than one-of-a-kind) or an instrument for the achievement of an end (as opposed to an end in itself). Desire motivated by an object of desire leads us to seek possession of that which is desired, allowing it significance only insofar as it meets our needs. A self that is consumed by objects of desire narrows, truncates, and obfuscates the world as it is. On the other hand, noncoercive action, unprincipled knowing, and objectless desire have the following in common: To the extent that a disposition defined in these terms is eficacious, it enriches the world by allowing the process to unfold spontaneously on its own terms, while at the same time participating fully in it. We may say that the implementation of the wu-forms allows us to leave the world as it is. But we may make this claim only if we recognize that “world” in this context means a myriad of spontaneous transactions that are characterized by emerging patterns of deference to acknowledged excellences. In Daoism the self is forgotten to the extent that discriminated objects no longer constitute the environs of the self. These three wu-forms—wuwei, wuzhi, wuyu—all provide a way of entertaining, of deferring to, and of investing oneself in an objectless world. Thus, in their governing of the people the sages are concerned with embodying and promoting the sort of acting, knowing, and desiring that does not depend upon objects. In fact, when these wu-forms are understood as the optimum dispositions of the Daoist self, whether in the person of the sage or the people, they provide us with a way of interpreting passages in the Daodejing that are frequently construed unsympathetically as recommending imposition and control. Chapter 3 is an example: Not promoting those of superior character Will save the common people from becoming contentious. Not prizing property that is hard to come by Will save them from becoming thieves. Not making a show of what might be desired Will save them from becoming disgruntled. It is for this reason that in the proper governing by the sages: They empty the hearts-and-minds of the people and ll their stomachs, They weaken their aspirations and strengthen their bones, Ever teaching the common people to be unprincipled in their knowing And objectless in their desires. They keep the hawkers of knowledge at bay. It is simply in doing things noncoercively That everything is governed properly. But the wu-forms are not just wuwei,

#### The 1AC’s constant run from death saps the ability to find meaning in life

Laozi, Ames and Hall 10. Roger Ames and David Hall (Ames is a Canadian philosopher at the University of Peking. Hall was a professor of philosophy at the University of Texas), 2010, “Daodejing: Making this Life Significant,” Ballantine Books, I have a pdf, sean! \*NOTE: I partially cite one of the original poems of the Daodejing here, written by Laozi. The translation and commentary is by Ames and Hall\*

Death is real and, wherever there is life, it is not far away. However, to separate death out from the life experience and inveigh against it as something to be avoided at all costs prevents us from appreciating the fragility and preciousness of life that is made possible by this same delicious temporality. Life is made meaningful by death. Death as natural closure punctuates a most particular event in the ongoing transformation of things. Properly understood, a healthy death can be lived well and can enhance the lives of all involved; misunderstood, a resentful death can sour life and become a focus of dread and loathing that robs everyone, especially those left to carry on, of their life energy. The Zhuangzi as a sustained reflection on the relationship between life and death provides many insightful anecdotes that take us beyond grief and suffering. For example: Not long thereafter, Ziyu fell ill, and Zisi went to ask after him. “Extraordinary!” said Ziyu. “The transformer of things continues to make me all gnarly and bent. He hunches me up so badly that my vital organs are above my head while my chin is buried in my belly button. My shoulders are higher than my crown, and my hunchback back points to the heavens. Something has really gone haywire with the yin and yang vapors!” ... “Do you resent this?” asked Zisi. “Indeed no,” replied Ziyu. “What’s to resent? If in the course of things it transforms my left arm into a cock, I’ll use it to tell the time of day. If it goes on to transform my right arm into a crossbow bolt, I’ll use it to shoot me an owl for roasting. If it then transforms my buttocks into wheels and my spirit into a horse, I will ride about on them without need of further transportation.... What’s to resent?”152 Zhuangzi’s conception of life and death is commonsensical. Empirically we know nothing of permanence and annihilation. In fact, all we know of experience is persistence within change. It is on this basis that the Zhuangzi concludes: “Once we take the heavens and earth to be a giant forge and transformation to be the great ironsmith, wherever I go is just fine. Relaxed I nod off and happily I awake.”153

#### Rationalism blinds us to specific circumstances, to the flow of the universe, to the people, to any policy options outside of the standard- Wu-Wei k2 eliminating the restraints

Pettman 05, Ralf Pettman, Taoism and The Concept of Global Security, International Relations of the Asian-Pacific, 2005, <https://sci-hub.se/https://doi.org/10.1093/irap/lci103>, r0w@n

Specific comparisons of Taoist and non-Taoist approaches to global security Having briefly tried to define Taoism and the Tao, and having indicated some of the problems that arise in trying to doing so, I shall now move to the nub of the matter, which is to compare Taoism and rationalism in epistemological terms. I will then compare Taoist thinking with more rationalist thinking about global security in ‘human’ terms, and then with rationalist thinking about global security in more conventional terms. 4.1 Comparing Taoist and rationalist epistemologies The profundity of the concept of the Tao seems to preclude us from using Taoism to describe its meaning in logical, empirical, analytical terms. As a consequence we are typically invited to talk in analogical and metaphorical terms instead. But this is to jeopardize at once the sympathy of most contemporary social scientists, who as a group are likely to require something much more publicly verifiable before considering it reliable. Rationalists are not about to content themselves with accounts of an aptitude for living 6 The story is that of the drunk who returns home at night and loses his key while trying to open the front door to his home. He is subsequently found by a neighbour looking under a lamplight some distance away. After asking what the drunk is doing, and where he lost his key, the neighbour then asks why the drunk is not looking outside his front door. The drunk replies to the effect that the light is brighter under the lamp. Taoism and the concept of global security 71 expressed in ‘stories, verses, maxims’ and the like (Graham, 1989, pp. 199– 200; Giles, 1961 [1889]) If historically or philosophically minded, they will want to be more systematic. If positivists, they will want to use the hypothetico-deductive method. So let us be clear. Rationalism, which is the doctrine within which most thinking and practice about the concept of global security is currently done, prioritizes reason as an end in itself. Taoism, which is the doctrine I am trying to bring to bear upon the rationalist construction of this concept, is a way of thinking and practice that does not. It prioritizes sacral (and in this instance, Taoist) insights instead. These two are seemingly incommensurable. They would seem to represent an unbridgeable epistemological divide. Their protagonists not only talk different analytical languages, they talk past each other as well, which is just what I want to prevent, not just because I do not like dialogues of the deaf, but more importantly, because I think it is to capitulate to rationalism. From the rationalist perspective, Taoism looks anti-rational. As such, it is at best interesting. It is not reliable knowledge. From the Taoist perspective, however, rationalism is what one does with the rational part of one’s mind. It is only part of what Taoists do, nor need it be the larger part, since it includes the injunction to live in a state of sacral spontaneity. I noted above that rationalism is compromised at its root by the kind of self that is required if rationalism is to succeed. I argued that the individuated self – at one mind’s remove from the community – is objectifying. This self is created in turn by learning to be mentally distanced from the communalist context into which ‘one’ was born. Rationalism valorizes this individuated self, typically turning it into a primary normative purpose. Because this bias is built into rationalism itself, and because it limits and distorts so thoroughly what rationalism can do, we have to go outside rationalism to compensate for it. Otherwise, whenever we use rationalism, we will get the world right, but we will also get the world wrong. The most straightforward compensation procedure I know is one that enjoins us to get close to listen, and to take part, that is, to actively eschew the objectifying mind-gaze to participate in what one wants to understand. Anthropologists do this when they immerse themselves in a society not their own. The compensation bid need not stop there, however. It can be carried over from the social ground to the sacral one (and in this case the Taoist one), thus providing the kind of insight not otherwise available to rationalists because of how they choose to know. Those rationalists who get this far will no doubt want to follow their Taoist insights up by considering them rationally, but at least they will have Taoist insights to follow up. At least, having accepted immersion in the ‘shal- 72 Ralph Pettman low’ or meditative end of the experiential pool,7 or even beyond, they may have learned what otherwise they would not have been able to. The rationalist may even want to follow this up with further attempts to take part, and further rationalist reappraisals. By which point we will have constructed a cycle of knowing that is already rolling rationalism forward across the epistemological divide. We are still faced with fundamental uncertainty about the ground on which we stand (though most natural scientists will remain oblivious, and many social scientists likewise.) By eternally returning to both rationalism and Taoism, however, we no longer have to set the one up in opposition to the other. We do not have to abandon our regard for rigour, or our preference for specified indices of comparison, or for reassessing sacral insights in non-sacral ways. But nor do we have to abandon the idea that Taoism has something meaningful to say about the concept of global security. The two are no longer placed in contention, since to place them thus is to cleave to the rationalist line as the surest way to know what is true, and to ignore the way the ontological character of rationalism compromises any such surety. While we are used to having sacral illusion dispelled by analytic clarity, we are not so used to having analytic illusion dispelled by sacral clarity. That is the task before us, however, and it is a task with normative implications considerably more extensive than those rationalists would valorize. How does moving onto Taoist ground, and immersing ourselves in Taoist experience, play out in practice? Our section on mapping the concept of global security began by highlighting the making of modernity. If we start with this general project, and cast it in the light of the general Taoist knack for sacral spontaneity, we see at once how little this knack has to do with the rationalist way of thinking or being. Where the modernist/rationalist talks of empirical logic and scientific representation, the sacralist/Taoist talks (in Graham’s terms, at least) of the rejection of empirical logic, and an ‘infinite regress, testing by tests which in the end are themselves untested’ (Graham, 7 Arriving at Taoist precepts requires the use of what Waley calls ‘quietism’, or the ‘gradual inward-turning of . . . thought’ (Waley, 1934, pp. 43, 45). This involves the use of the mind in non-rationalist, indeed anti-rationalist ways, that allow it to become less distracted and more aware. For rationalists, meditation as a research methodology is too subjective. Why should we accept the results of Taoist quietism, they say, as a way to plan global security, for example, when we can use rationalist bargaining strategies and mediation practices instead? Why, for that matter, should we treat exploitation or global destitution or environmental neglect with meditative detachment, rather than with objective plans for changing the world for the better? Why should we use non-rational illumination to help rulers order the inter-state system when we have publically replicable ways of thinking that allow us to do so scientifically (Graham, 1989, p. 234)? Taoists respond by comparing their accounts of the world with modernist ones. They point out how modernist state-makers are taught to understand world affairs by objectifying. They point out how knowing of this sort is circumscribed by the nature of the primary experience that makes untrammelled reasoning possible (individuation). And they see themselves as eschewing these limits by inviting a different kind of primary experience. Taoism and the concept of global security 73 1981, pp. 10, 11). Where the rationalist talks of the hypothetico-deductive method, the Taoist talks (again in Graham’s terms) of an understanding of the ‘mysterious order which runs through all things’, and the universal motion of chi energy (Graham, 1981, pp. 12, 19–20). Where the rationalist talks of a detached and individuated intellectual vantage-point, separate from society, where reason can be given free reign to cogitate and communicate, the Taoist talks (in Hansen’s terms this time) of ‘heart-minds’ (Hansen, 1992, pp. 53, 85–86). Taoists respond to the situation they are in by unfocusing, that is, by allowing themselves to act with the ‘immediacy of an echo’, rather than the self-consciousness of someone who applies general principles. (Graham, 1981, pp. 6, 12, 14). They invite, in other words, the kind of recognition the ‘heart’ gives ‘when the mind is silent’ (Krishnamurti, 1972, p. 34). This is metaphorical language, but we are not, after all, trying to ascertain what is scientifically true. We are trying to locate scientific truth-finding within its sacral context.8 Faced with global security planning, Taoists highlight the way rationalist attempts to anticipate a particular foreign policy can only reach so far. Taoists highlight how those who really know what they are doing tend to eschew conscious thought to attend instead to the ‘total situation’. This ‘knack’, like a feel for the way a bacterium works, or for how to play a musical instrument, is not one that can be ultimately explained (Graham, 1983, p. 7). Taoists also compare the way they face the future with the way it is faced by those who promote the national interest, for example, or the relevant capitalist/corporate, politico-social, bourgeois, or masculinist interest. The rationalist entertains options A, B, and C, and plays out each one in advance, in a bid to anticipate what will turn out the best. Except that it is not possible to anticipate what will turn out the best. In choosing one policy option, the others cease to exist. Once, for example, option B is chosen, options A and C have no chance of happening. Option A might have been better, or might have been worse. Likewise option C. With the B policy chosen, these alternatives are no longer alternatives. Which is why contemplating such alternatives was futile in the first place, and making decisions on the basis of such contemplations makes no sense at all. It is not possible, that is, to know rationally what is in the national interest. To rely on rationalism is, therefore, to overplay rationalism, which is to underplay Taoism in turn, and to underplay sacral spontaneity (Graham, 1981, p. 14). 8 This is why Taoists see intellectual detachment in terms of a ‘returning’ to the ‘‘root’ or ‘trunk’ or ‘seed’ . . . [or] ‘gate’ . . . [or] ‘axis’ . . .’ (Graham, 1981, p. 21), and tend not to posit a reality behind appearances, as modernists/rationalists do. Taoist thought is figured against a very different metaphysical ground. As Graham says: ‘In so far as we can co-ordinate the Chinese concepts with our own, it seems that the physical world has more being and reality than the Way. However it is only by grasping the Way that we mirror the physical world clearly . . .’ (Graham, 1981, p. 21). 74 Ralph Pettman Modernist proponents of global security demur. Enough people in the world live as if modernist conceptions of global security ought to prevail, they note, for most of these conceptions to prevail in practice. Enough people behave as if world order is made up of sovereign states, for example, for this way of ordering world affairs to be a tangible, global reality. The same applies to liberal marketeering, global modes of making civil identity, the global formation of capitalist classes, the global advent of social movements, and the global advent of gender-specific practices. There is a self-fulfilling quality to the modernist project, and we must deal with its global consequences, they argue, whether the Taoist critique of the rationalist cause is valid or not. This is not to say that the people of the world live in the best of all possible worlds. Perhaps there is a preferred alternative, though perhaps (and this is the Taoist thought) there is no ‘preferred alternative’ either, at least of a rationally accessible sort. Perhaps it is a matter of standing back to look at this cosmos that we are all in, then standing close to listen, then feeling as best we can for how it moves, before standing back to look once more. Perhaps we might even learn something in taking ourselves through such a process, something we might need to know if we are to understand global security. 4.2 Comparing Taoist concerns with human security ones Speaking of the people of the world, I will now move to consider the concept of global security in terms of human security. The concept of human security still tends to be used to describe everything that the statist/militarist forms of security thinking are not (Paris, 2001). I think this is a mistake since I think it is more useful to see strategic security thinking as one aspect of human security thinking. I shall heed the conventional distinction here, however, as a way of comparing Taoist ideas and non-strategic security ones. The Taoist is likely to turn first to the pre- and post-modernist margins that modernist/rationalists create as they seek to extend their hegemonic grasp. Modernists consign to the margins those not deemed rationalistic enough, like women, and those who do not accept modernity as being necessarily beneficial, like many environmentalists. While feminists highlight the male-made character of global security, most feminists are also modernists, however. As such they are not in much of an epistemological mood to listen to Taoists, who they tend to think of as representing a pre-modernist way of thinking. Environmentalists, meanwhile, highlight the impact modernist humankind is having upon the planet’s ecosystems. The modernists among them tend to dismiss Taoist thinking likewise. The Taoist might turn next to those who speak the different analytic lan- Taoism and the concept of global security 75 guages mapped in the first section of this article with regard to the different assumptions analysts make about human nature and nurturing practices. Since those who speak these languages are all rationalists, however, the Taoist is likely to meet with the epistemological incomprehension already discussed. Perhaps the Taoist should apply a more specific Taoist technique, therefore. Perhaps a more particular expression of the Taoist perspective will be able to gain better purchase on the rationalist position. In this section I shall look at human security in the light of the Taoist preference for wu-wei, that is, active pacifism, or ‘no unnatural action’, or, as Graham calls it, ‘Doing Nothing’ (Graham, 1981, p. 288; 1989, pp. 232–233). To Needham, wu-wei means not using force when ‘subtler methods of persuasion, or simply letting things alone to take their own course’ promises a good outcome (Needham, 1956, pp. 37, 68). To Merton it means ‘perfect action – because . . . carried out . . . in perfect harmony with the whole . . . [and] not “conditioned” or “limited” by our own individual needs . . . desires . . . theories and ideas’ (Merton, 1965, p. 28). To Hansen it means action that avoids ‘artificially induced or learned purposes or desires . . . [since g]etting rid of wei . . . [means] freeing us from society’s purposes, socially induced desires, social distinctions or meaning structures . . .’ (Hansen, 1992, p. 214). Clearly, we are going to encounter here the same translation troubles we did earlier. A general reading of the Taoist literature seems to suggest that the Taoist sees wu-wei as a demonstrably caring, humble, frugal, yielding, and wise way to respond, however. It is the kind of (re)action that spares lives as much as it can, while leaving people as much as possible to themselves. It is the kind of (re)action that deals with large matters while they are still small, and fosters ‘being content’. It is the kind of counsel state-makers heed when they keep their ‘sharpest weapons where none can see them’, and regard all weapons as not ‘lovely’. It opposes conquest by force of arms, knows ‘the male’ and yet cleaves to that which is ‘female’, seeks the welfare of ordinary people, and endeavours to see and hear as ordinary people do. It tries not to stimulate the desire for products that are hard to get, and it tries not to legislate kindness or morality, exalt fame or riches, or rely upon either the ritual or overt use of power. In short, it tries to foster gentle friendships, true words, good government, due regulation, and effective deeds (Lao Tzu, 1997, pp. 11, 29, 31, 32, 37, 49, 75, 77, 81). Despite all the in-built universals (what constitutes wisdom or compassion? what is a true word? what is good government? what is an effective deed?), this concept is not a vague one. If it still seems so, it is given a graphic account in the practise of Taoist-inspired martial arts like that of tai 76 Ralph Pettman chi chuan, or judo, or aikido. In tai chi chuan the force of the opponent is returned or redirected, making it possible to prevail by yielding rather than by retaliating. This has important implications for conflict management and conflict resolution, even though it may well be one thing to redirect a punch to the person, and quite another to topple the global edifice of gender discrimination or capitalist exploitation, or to fight a guerrilla war. In Japanese judo, which is derived from the Chinese martial arts, weaker people learn to overcome stronger ones by moving in ways that do not offer resistance (Creel, 1970, p. 67). The same principle is manifest in aikido, a Taoist-style meditation in martial movement, where the purpose is to bring the self into accord ‘with the universe itself ’. This requires the practitioner to prevail over the ‘mind of discord’ in itself. In practice, this does not mean retreat. Nor does it mean retaliation. It means completing the task we all purportedly have, that is ‘to reconcile the world and make human beings one family’ (Uyeshiba, 1963, pp. 177, 178; Pettman, 1993). Returning to the analytic map of the concept of global security provided at the start, we can now compare the thinking of those who speak as liberal analysts of the inter-state system or society, for example, with their optimistic assumptions about the capacity for tit-for-tat behaviour, and Taoist thinking, which makes no such assumptions, and is not constrained by the rationalist context in which such assumptions are articulated. Wu-wei decrees no need to return tit-for-tat in promoting global security. It may mean practising reciprocity. It may not. There is no conceptual obligation either way, since ‘no unnatural action’ is not a contractual practice. The Tao te ching espouses a sense of the human whole instead. Since the Taoist also eschews legislated forms of morality, he or she is not bound to the kind of agreements that make international alliances and organizations possible. In dealing with global security matters, he or she seeks to employ sacral spontaneity rather than analytic deliberation, artlessness rather than purposefulness, and to engage in action not planned in the more premeditated way. This sounds to rationalist ears like a recipe for disaster, since it appears to lack all the certainty they are used to in securing global affairs. There are no agreed rules, or agreed habits of international practice where rules cannot be established, or established ways of using force where co-operative means fail. They are likely to point to the Hitlers of this world, who revel in Taoist-style spontaneity, and who take millions of innocent people down with them. And they are right to do so. Taoists are not racist fascists, however. This kind of spontaneity is not Taoist, even when it gets couched in sacral terms. The key Taoist works read nothing like the ideological writings of a Hitler or one of his ilk. Indeed, they speak from a perspective that shows these writings to be human Taoism and the concept of global security 77 atavisms. They repudiate them comprehensively. Moreover, Hitler was the product of rationalism gone awry. Reaching for the mind-view that made for his rise in the first place is not what we necessarily want to do next. If we turn to the rationalist proponents of world government, we find those who are more optimistic than the liberals about the possibility of global governance, and we find that Taoists do not make this kind of assumption either. Nor do they accept the conceptual constraints involved. Taoists do not see people as being calculating or altruistic. In practise ‘no unnatural action’ makes for a mirror-like appraisal of the moment. It may mean promoting world governance or government. It may not. Given the sacral spontaneity that wu-wei represents, any policy choice may be preferred (Graham, 1981, p. 91). It will depend on what lets most people live out their lives relatively unharassed. In terms of the politico-economic (market-making) dimension to world affairs, the practice of wu-wei may or may not stand in stark contrast to the dog-eat-dog thinking of contemporary economic protectionists, the tit-for-tat thinking of global marketeers, and the hail-fellow-well-met thinking of international socialists. While protectionists always see a need to defend their country against the predatory behaviour of trading and investing ‘others’, Taoists may or may not feel obliged to respond with economic nationalism of this sort. Likewise with the free trading and investing practices that those who see human beings as basically calculating espouse (though the Tao te ching does eschew the stimulation of a desire for products that are hard to get). Nor do Taoists necessarily espouse the planned production and distribution policies that altruistic socialists find most congenial either (though the Tao te ching does recommend distributing a country’s wealth evenly, without legislating kindness). If we focus upon issues to do with global economic development and human want, we can see that Taoists are not constrained to the rationalist languages currently used here to do their thinking with. The concept of wu-wei frees us from the constraints these languages impose. This does not mean that wu-wei prescribes set developmental policies of some other kind, or has a solution it can bring to bear upon a specific famine (though Taoism does enjoin us to be frugal and content, foster the welfare of ordinary people, and not exalt riches). It does mean that wu-wei will always see economic well-being as part of the security equation, however, which is still not an acknowledged part of the rationalist approach to global security. It will always argue that people should not want, as well, which is not yet the basic position in the rationalist world either. In terms of the politico-social dimension to world affairs, we can see how the practice of wu-wei may or may not entail the dog-eat-dog thinking of 78 Ralph Pettman contemporary nationalists, the tit-for-tat thinking of modernist proponents of human rights and democracy, or the hail-fellow-well-met thinking of modernist proponents of social movements. Taoism is not constrained to any particular policy or policies. Indeed, it enjoins us not to get caught up in the conventional thinking that these rationalist ways of talking about the self-in-world-society represent. This does not make it a panacea (though the humane and caring character of Taoism would make it the basis for one, as would its sense of cosmic respect). It does invite us to move beyond the rationalist way of thinking, though, to entertain the Taoist level of experience, before deciding what to do. Which brings us to that part of the analytic map sketched at the beginning that accounts for those who emphasize the importance of human nurturing practices, not human nature. Classical marxists emphasize the materialist nature of the nurturing environment, articulating an analytic language that describes and explains the concept of global security in terms of the capitalist mode of production, capitalist exploitation, and the relevant class struggle. Neo-marxists add a mentalist note to this story to account for the hegemonic power of the ruling class, and its capacity to craft a concept of global security that serves its particular interests. Taoist spontaneity is radically different in that it does not portend any particular alternative to the analytic certainties (neo)marxist doctrines represent. Nor does it preclude the policies they prescribe or proscribe. Wu-wei practice seeks responses that are more immediate, instead, and more appropriate to the global security situation, as read as a whole, and from one moment to the next. It seeks a sense of the whole security situation, before affirming that sense in such a way as to nurture as many concerned as possible. Of the analytic languages that articulate preconceptions about human nurturing practices, constructivism is the one most like Taoism. This analytic language highlights the mentalist aspect of the nurturing environment. It does not recommend any particular policy response, since it merely highlights the mentally-made component to them all. Taoism can look very similar, particularly when we find the Tao te ching recommending that we should think as ordinary people think, which is just what the so-called ‘commonsense’ version of constructivism does (Pettman, 2000). While constructivism does not prescribe a particular way of thinking about the concept of global security, it is still rationalist, however, and it still constrains us to a mentalist rather than a materialist consideration of the concept. Taoism does not. It is non-rationalist and sacralist. And while most rationalists are likely to find this a recipe for epistemological anarchy, some may find that it is an opportunity to explore and assess productive ways of thinking that rationalism precludes. Taoism and the concept of global security 79 4.3 Comparing Taoist concerns with conventional strategic ones The dominant (though not necessarily the most important) language spoken about contemporary world affairs is the (neo)realist one. It articulates all of our dog-eat-dog notions about an anarchic world system, and global and regional balances of power. Compare the concept of wu-wei. This would seem to have nothing to do with the whole politico-strategic spectrum (Pettman, 1998, p. 176). On the one hand we have the classical realist dialect of alliance-hopping, and the neo-realist dialect of structural reasons for self-help. We have prescriptions for the pursuit of the national self-interest, and for the proscription of intervention in other states’ affairs. We have state-centricity, and pessimistic assumptions about human nature. On the other hand we have the Taoist determination to make no such assumptions and accept no such constraints. We have clear but not dogmatic opposition to conquest by force of arms. We have the decision to be as flexible as possible about what foreign policies to adopt, and how to implement them. We have the determination to act or react with profound, indeed sacral spontaneity. Rationalists aptly point out that anything less than sacral spontaneity is likely to fall flat on its face. While we wrestle with whether we are profound enough, however, we can always, as the Tao te ching recommends, keep the state’s biggest guns out of sight, treat them as unattractive (no parades or fly-pasts), use overt force extremely reluctantly, ensure that collateral human damage is kept to an absolute minimum if we do have to use force, and treat any success as a tragedy not a triumph. The ultimate issue in the politico-strategic realm is war. How does wu-wei apply here? Human warring is regularly analysed rationally in terms of a range of causes, kinds and consequences. The results of these analyses are used to plan appropriate politico-strategic practices, whether of an offensive, defensive, or pre-emptive kind. Human warring can also be analysed by meditating, however – that is, by not cogitating so self-consciously upon the ways in which we relate to each other and the world. The results of these meditations can then be used to practice neither offence, defence, or preemption, but a kind of watchfulness, a kind of non-anticipation, a way of being in the world-moment that is equaniminous, open, and aware. The latter is the one that wu-wei exemplifies. It would be worthy but fruitless to try and deal with world conflict

#### Socialism fails if we can’t change the fundamental disconnect between people- Daoism is the only system that does that-

Joseph Pratt 14, A Daoist Take on American Legal Theory, No Publication, 5-26-2014, DOA: 10-26-2021, https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2441773, r0w@n

This consciousness is a sense of the world’s inherent goodness, and that a balance between the other and oneself is necessary to experience that beauty. 83 It is an awareness that separation is only for the experience of community and ultimately Oneness and the Dao. It also follows, as some people in early America understood, only when the common weal and individual pursuits are in harmony can people enjoy true equality and liberty and thus the freedom to pursue that happiness the world provides. This enlightened sense brings together Immanuel Kant’s individualism and Jeremy Bentham’s utilitarianism in a way that achieves much more than either could do separately. 84 81 PENNSYLVANIA CONSTITUTION OF 1776, Article XIV (noting “[t]hat a frequent recurrence to fundamental principles, and a firm adherence to justice, moderation, temperance, industry, and frugality are absolutely necessary to preserve the blessings of liberty, and keep a government free”). 82 For an early case law comment on this point, see Currie’s Administrators v. Mutual Assurance Society, 14 Va. 315 (Va. 1809) (noting that a legislature could not limit a subsequent legislature’s actions on a particular matter, but only admonish that any change would violate a natural principle). 83 Professor Gabel calls for realizing an “unalienated relatedness,” while Professor Kennedy might refer to this consciousness as an “intersubjective zap.” See Gabel and Kennedy, Roll Over, supra note 36, at 1-14 (1984). Gabel also noted that union and otherness represent a false duality. Id. at 21. 84 Bentham’s utilitarianism would be considered a communalism to the extent it is concerned with the greatest good for the greatest number of people. In harmony with individualism, this communalism achieves the greatest good for everyone. In other words, there are no losers. Similarly, with respect to Kant’s individualism, people are not considered a means to an end. Electronic copy available at: https://ssrn.com/abstract=2441773 17 The problem is not liberalism per se.85 A strict republicanism, as in state Communism, was as dysfunctional as the Lochner era’s liberalism—both lasted less than 50 years. Whereas capitalism overemphasized the individual, Communism overplayed the communal. Without a genuine connection among people, the forced equality saps the work spirit and the society crumbles. Nor is the solution a capitalistic-socialism, as in modern China—in contrast with the socialisticcapitalism found in America. Emphasizing socialist principles without a deeper connection among the people also only perpetuates a wayward system. The two sets of social norms may differ, but the underlying problem is the same. To foster or preserve this consciousness, the law needs to structure social institutions and decide legal disputes in ways that facilitate this consciousness. In this respect, as in early America, the law must promote a harmonious balance between the common weal and individual pursuits, and discourage purely private material aims, recognizing they are neither productive nor fulfilling as they may seem. In this role, the law must be integrative—it must contemplate various personal and social factors, including the psychological, sociological, political, and economic. 86 At the level of legal theory, the opposing sides like Formalism and 85 This point, and critique of CLS, was noted early on. See Mark Hager, Book Review, Against Liberal Ideology: A Guide to Critical Legal Studies, by Mark Kelman, 37 AM. L. REV. 1051, 1057-59 (1988). 86 Professor Gabel has suggested that such a legal system will stress restorative justice, mediation movements, holistic lawyers and integrated legal education. See Gabel, Spiritual Practice, supra note 33, at 530-531. Electronic copy available at: https://ssrn.com/abstract=2441773 18 Realism as well as naturalism and positivism also must come back together—again as in early America—to constitute a simple holistic wisdom.87 Attaining a harmonious consciousness, at the same time, will reduce the need for law and legal theory. 88 Daoism stresses that in a balanced state, people believe the goodness has occurred naturally.89 Rather than a stratified society, which many early Americans also sought to avoid, people will seek arrangements where they can live and work in harmony with each other. There thus will be less overt economic conflict. Even in contractual matters, people will seek solutions that benefit all— recognizing that to injure another is to injure the group and ultimately oneself. In torts, similarly, the grounded consciousness will make people reasonable in their daily interactions and reduce negligence. 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#### The alternative is creating a harmonious consciousness, making the law integrative, contemplative, and reconsiderate of the Western paradigm

Joseph Pratt 14, A Daoist Take on American Legal Theory, No Publication, 5-26-2014, DOA: 10-26-2021, https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2441773, r0w@n

This consciousness is a sense of the world’s inherent goodness, and that a balance between the other and oneself is necessary to experience that beauty. 83 It is an awareness that separation is only for the experience of community and ultimately Oneness and the Dao. It also follows, as some people in early America understood, only when the common weal and individual pursuits are in harmony can people enjoy true equality and liberty and thus the freedom to pursue that happiness the world provides. This enlightened sense brings together Immanuel Kant’s individualism and Jeremy Bentham’s utilitarianism in a way that achieves much more than either could do separately. 84 81 PENNSYLVANIA CONSTITUTION OF 1776, Article XIV (noting “[t]hat a frequent recurrence to fundamental principles, and a firm adherence to justice, moderation, temperance, industry, and frugality are absolutely necessary to preserve the blessings of liberty, and keep a government free”). 82 For an early case law comment on this point, see Currie’s Administrators v. Mutual Assurance Society, 14 Va. 315 (Va. 1809) (noting that a legislature could not limit a subsequent legislature’s actions on a particular matter, but only admonish that any change would violate a natural principle). 83 Professor Gabel calls for realizing an “unalienated relatedness,” while Professor Kennedy might refer to this consciousness as an “intersubjective zap.” See Gabel and Kennedy, Roll Over, supra note 36, at 1-14 (1984). Gabel also noted that union and otherness represent a false duality. Id. at 21. 84 Bentham’s utilitarianism would be considered a communalism to the extent it is concerned with the greatest good for the greatest number of people. In harmony with individualism, this communalism achieves the greatest good for everyone. In other words, there are no losers. Similarly, with respect to Kant’s individualism, people are not considered a means to an end. Electronic copy available at: https://ssrn.com/abstract=2441773 17 The problem is not liberalism per se.85 A strict republicanism, as in state Communism, was as dysfunctional as the Lochner era’s liberalism—both lasted less than 50 years. Whereas capitalism overemphasized the individual, Communism overplayed the communal. Without a genuine connection among people, the forced equality saps the work spirit and the society crumbles. Nor is the solution a capitalistic-socialism, as in modern China—in contrast with the socialisticcapitalism found in America. Emphasizing socialist principles without a deeper connection among the people also only perpetuates a wayward system. The two sets of social norms may differ, but the underlying problem is the same. To foster or preserve this consciousness, the law needs to structure social institutions and decide legal disputes in ways that facilitate this consciousness. In this respect, as in early America, the law must promote a harmonious balance between the common weal and individual pursuits, and discourage purely private material aims, recognizing they are neither productive nor fulfilling as they may seem. In this role, the law must be integrative—it must contemplate various personal and social factors, including the psychological, sociological, political, and economic. 86 At the level of legal theory, the opposing sides like Formalism and 85 This point, and critique of CLS, was noted early on. See Mark Hager, Book Review, Against Liberal Ideology: A Guide to Critical Legal Studies, by Mark Kelman, 37 AM. L. REV. 1051, 1057-59 (1988). 86 Professor Gabel has suggested that such a legal system will stress restorative justice, mediation movements, holistic lawyers and integrated legal education. See Gabel, Spiritual Practice, supra note 33, at 530-531. 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Electronic copy available at: https://ssrn.com/abstract=2441773 19 purely material gain—a sense that the individual self could outstrip the whole. It was a wrong step in a right direction. With a holistic consciousness, people again will be free to create and invent new ways of doing things. These new ways, moreover, will accord with the underlying natural order and thus be more productive than the former methods. In the present, post-capitalistic-industrial era, this harmonious approach will open up new metaphysical-physical possibilities, which have few, if any, of the negative side effects, such as pollution, cancer and war, of the discordant system. Just as America’s early homesteading outstripped feudalistic agricultural systems, a holistic approach to manufacturing will surpass the capitalistic-industrial order’s methods. In connection with a harmonious economy, this consciousness, by creating a stable community of secure individuals, will free people from the alienation and thus errant desire and displacement activity of modern societies. In the balanced state, people will be free to experience the world on a deeper and fuller basis. 90 Each person will have the opportunity to realize his or her unique contribution to the whole and thereby attain the happiness that ordinary existence promises. The social norms that previously channeled and controlled displacement activity will become redundant. When it comes to any such displacement conflict, the law will seek integrative ways to restore individual and societal balance. Finally, this consciousness, by showing individual health is related to universal principles of balance and harmony, will encourage people to lead healthy lives and 90 CLS scholars seeking to transcend ill-liberal tendencies have noted this relationship. See, e.g., Gabel and Kennedy, Roll Over, supra note 36. Electronic copy available at: https://ssrn.com/abstract=2441773 20 take responsibility for their illnesses. Daoist metaphysics demonstrates that harmony between the Yin and Yang applies all the way down to the cellular level (and farther). 91 When people live in balance, they accord with universal principles and experience physical, spiritual, and mental health. People will also recognize disease is a sign of imbalance and a call for adjusting a person’s consciousness. This natural health and individual responsibility will greatly reduce the need for tertiary social welfare norms. This basic change, of course, goes deeper than general legal norms. It calls for a reconsideration of the modern Western paradigm based on material separation (e.g., Newtonian physics, Darwinian biology, Freudian psychology, and Weberian sociology). As already noted, Daoism shows that the explicit separation is only for an implicit connection and ultimately Oneness and the Dao. 92 At the same time, this change in consciousness calls for a return to a holistic sense, as America’s founders understood, of people and the world as inherently good (the divine essence itself). This lucidity will resolve many disputes within academic fields and between science and religious forums. It will bring the various strands of thinking back under a single roof. In this respect, Daoism is a complete account of reality. 93 91 See WANG, YINYANG, supra note 6, at 2, citing the 200 C.E. Huangdi Neijing. 92 Quantum physics certainly challenges the traditional order, and some notable physicists have already argued an approach similar to Daoism. See, e.g., DAVID BOHM, WHOLENESS AND THE IMPLICATE ORDER (1980). See also, DAVID BOHM,ON CREATIVITY 104 (1996) (calling for a new mathematics that calls attention to a whole movement and to particular things only in some secondary function). 93 It’s not that this grand unified theory can be proven rationally, as Daoism holds, it can only be shown that it could be no other way. Electronic copy available at: https://ssrn.com/abstract=2441773 21 At some point, this change in consciousness is inevitable—as Daoism illustrates, the present situation is unsustainable. Conflict has served its purpose: disharmony is necessary for the experience of harmony and ultimately Oneness and the Dao. As described in Part III, however, the current economic conflict is dysfunctional, and the cultural and social welfare strife crippling.94 Throughout history, a conflicted society has always had to evolve or it would collapse;95 and, again, neither the law nor any other social norm could do anything about it. Many of America’s late 18th century constitutionalists understood that the conflict between liberalism and republicanism was inimical to democracy and a natural happiness. As Daoism also notes, this question is not a philosophical issue, it is a metaphysical point. Daoism demonstrates the whole is greater than the sum of its parts. When the implicit connection and explicit separation come together in harmony, a person may experience Oneness and ultimately the Dao.96 This ancient wisdom is simple but profound. In the modern era, thinkers must work to understand its implications. 97 There is much to do within current fields like physics, health, and divinity. In typical 94 Externalities are much greater than most people recognize, and include things like routine pollution, war and cancer. 95 Feudalism, for example, either transitioned to a balanced homesteading (something akin to early America) or collapsed (like what happened in Russia). 96 Professor Wang also noted this point. See WANG, YINYANG, supra note 6, at 223 (describing how “[t]he whole emergent regularity is more than the sum of its parts”). 97 For the many nuances of just the Yin and Yang, see Professor Wang’s book. WANG, YINYANG, supra note 6. Electronic copy available at: https://ssrn.com/abstract=2441773 22 Daoist fashion, this Eastern understanding calls for a Western pragmatism.98 In such a harmoniousstate may lie the solution to the world’s present challenges.

#### The alternative creates a balanced state that solves your aff and everything else

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### Case

#### No India draw-in – Asian nuclear triangle, China and Pakistan prevent escalation

Zachary Keck 19 {Zachary Keck is the former managing editor of the National Interest. 2-15-2019. “Billions Dead: That’s What Could Happen if India And Pakistan Wage a Nuclear War.” https://go-galegroup-com.proxy.lib.umich.edu/ps/i.do?p=ITOF&u=umuser&id=GALE%7CA574336299&v=2.1&it=r&sid=summon}//JM

leaders, knowing they'd face incredible domestic pressure to respond, would also have no guarantee that Pakistani leaders didn't intend to follow the tactical use of nuclear weapons with strategic strikes against Indian cities. Armed with what they believe is reasonable intelligence about the locations of Pakistan's strategic forces, highly accurate missiles and MIRVs to target them, and a missile defense that has a shot at cleaning up any Pakistani missiles that survived the first strike, Indian leaders might be tempted to launch a counterforce first strike. As former Indian National Security Advisor Shivshankar Menon wrote in his memoirs (which Narang first drew people's attention to at the Carnegie Nuclear Policy Conference in March): "India would hardly risk giving Pakistan the chance to carry out a massive nuclear strike after the Indian response to Pakistan using tactical nuclear weapons. In other words, Pakistani tactical nuclear weapon use would effectively free India to undertake a comprehensive first strike against Pakistan." One factor Indian leaders would be forced to consider is how the other third of Asian nuclear triangle, China, would react. Although the Stimson Center event focused primarily on India and Pakistan, China has always been the primary focus of India's nuclear program. Beijing is also a staunch if informal ally of Pakistan, with a growing economic stake in the country. It is this multipolarity that is the hallmark of the second nuclear age.

#### Nuke war wouldn’t cause extinction---BUT, industrial civilization wouldn’t recover.

Lewis **Dartnell 15**. UK Space Agency research fellow at the University of Leicester, working in astrobiology and the search for microbial life on Mars. His latest book is The Knowledge: How to Rebuild Our World from Scratch. 04-13-15. "Could we reboot a modern civilisation without fossil fuels? – Lewis Dartnell." Aeon. <https://aeon.co/essays/could-we-reboot-a-modern-civilisation-without-fossil-fuels>

Imagine that the world as we know it ends tomorrow. There’s a global catastrophe: a pandemic virus, an asteroid strike, or perhaps a nuclear holocaust. The vast majority of the human race perishes. Our civilisation collapses. The post-apocalyptic survivors find themselves in a devastated world of decaying, deserted cities and roving gangs of bandits looting and taking by force. Bad as things sound, that’s not the end for humanity. We bounce back. Sooner or later, peace and order emerge again, just as they have time and again through history. Stable communities take shape. They begin the agonising process of rebuilding their technological base from scratch. But here’s the question: how far could such a society rebuild? Is there any chance, for instance, that a post-apocalyptic society could reboot a technological civilisation? Let’s make the basis of this thought experiment a little more specific. Today, we have already consumed the most easily drainable crude oil and, particularly in Britain, much of the shallowest, most readily mined deposits of coal. Fossil fuels are central to the organisation of modern industrial society, just as they were central to its development. Those, by the way, are distinct roles: even if we could somehow do without fossil fuels now (which we can’t, quite), it’s a different question whether we could have got to where we are without ever having had them. So, would a society starting over on a planet stripped of its fossil fuel deposits have the chance to progress through its own Industrial Revolution? Or to phrase it another way, what might have happened if, for whatever reason, the Earth had never acquired its extensive underground deposits of coal and oil in the first place? Would our progress necessarily have halted in the 18th century, in a pre-industrial state? It’s easy to underestimate our current dependence on fossil fuels. In everyday life, their most visible use is the petrol or diesel pumped into the vehicles that fill our roads, and the coal and natural gas which fire the power stations that electrify our modern lives. But we also rely on a range of different industrial materials, and in most cases, high temperatures are required to transform the stuff we dig out of the ground or harvest from the landscape into something useful. You can’t smelt metal, make glass, roast the ingredients of concrete, or synthesise artificial fertiliser without a lot of heat. It is fossil fuels – coal, gas and oil – that provide most of this thermal energy. In fact, the problem is even worse than that. Many of the chemicals required in bulk to run the modern world, from pesticides to plastics, derive from the diverse organic compounds in crude oil. Given the dwindling reserves of crude oil left in the world, it could be argued that the most wasteful use for this limited resource is to simply burn it. We should be carefully preserving what’s left for the vital repertoire of valuable organic compounds it offers. But my topic here is not what we should do now. Presumably everybody knows that we must transition to a low-carbon economy one way or another. No, I want to answer a question whose interest is (let’s hope) more theoretical. Is the emergence of a technologically advanced civilisation necessarily contingent on the easy availability of ancient energy? Is it possible to build an industrialised civilisation without fossil fuels? And the answer to that question is: maybe – but it would be extremely difficult. Let’s see how. We’ll start with a natural thought. Many of our alternative energy technologies are already highly developed. Solar panels, for example, represent a good option today, and are appearing more and more on the roofs of houses and businesses. It’s tempting to think that a rebooted society could simply pick up where we leave off. Why couldn’t our civilisation 2.0 just start with renewables? Well, it could, in a very limited way. If you find yourself among the survivors in a post-apocalyptic world, you could scavenge enough working solar panels to keep your lifestyle electrified for a good long while. Without moving parts, photovoltaic cells require little maintenance and are remarkably resilient. They do deteriorate over time, though, from moisture penetrating the casing and from sunlight itself degrading the high-purity silicon layers. The electricity generated by a solar panel declines by about 1 per cent every year so, after a few generations, all our hand-me-down solar panels will have degraded to the point of uselessness. Then what? New ones would be fiendishly difficult to create from scratch. Solar panels are made from thin slices of extremely pure silicon, and although the raw material is common sand, it must be processed and refined using complex and precise techniques – the same technological capabilities, more or less, that we need for modern semiconductor electronics components. These techniques took a long time to develop, and would presumably take a long time to recover. So photovoltaic solar power would not be within the capability of a society early in the industrialisation process. Perhaps, though, we were on the right track by starting with electrical power. Most of our renewable-energy technologies produce electricity. In our own historical development, it so happens that the core phenomena of electricity were discovered in the first half of the 1800s, well after the early development of steam engines. Heavy industry was already committed to combustion-based machinery, and electricity has largely assumed a subsidiary role in the organisation of our economies ever since. But could that sequence have run the other way? Is there some developmental requirement that thermal energy must come first? On the face of it, it’s not beyond the bounds of possibility that a progressing society could construct electrical generators and couple them to simple windmills and waterwheels, later progressing to wind turbines and hydroelectric dams. In a world without fossil fuels, one might envisage an electrified civilisation that largely bypasses combustion engines, building its transport infrastructure around electric trains and trams for long-distance and urban transport. I say ‘largely’. We couldn’t get round it all together. When it comes to generating the white heat demanded by modern industry, there are few good options but to burn stuff. While the electric motor could perhaps replace the coal-burning steam engine for mechanical applications, society, as we’ve already seen, also relies upon thermal energy to drive the essential chemical and physical transformations it needs. How could an industrialising society produce crucial building materials such as iron and steel, brick, mortar, cement and glass without resorting to deposits of coal? You can of course create heat from electricity. We already use electric ovens and kilns. Modern arc furnaces are used for producing cast iron or recycling steel. The problem isn’t so much that electricity can’t be used to heat things, but that for meaningful industrial activity you’ve got to generate prodigious amounts of it, which is challenging using only renewable energy sources such as wind and water. An alternative is to generate high temperatures using solar power directly. Rather than relying on photovoltaic panels, concentrated solar thermal farms use giant mirrors to focus the sun’s rays onto a small spot. The heat concentrated in this way can be exploited to drive certain chemical or industrial processes, or else to raise steam and drive a generator. Even so, it is difficult (for example) to produce the very high temperatures inside an iron-smelting blast furnace using such a system. What’s more, it goes without saying that the effectiveness of concentrated solar power depends strongly on the local climate. No, when it comes to generating the white heat demanded by modern industry, there are few good options but to burn stuff. But that doesn’t mean the stuff we burn necessarily has to be fossil fuels. Let’s take a quick detour into the pre-history of modern industry. Long before the adoption of coal, charcoal was widely used for smelting metals. In many respects it is superior: charcoal burns hotter than coal and contains far fewer impurities. In fact, coal’s impurities were a major delaying factor on the Industrial Revolution. Released during combustion, they can taint the product being heated. During smelting, sulphur contaminants can soak into the molten iron, making the metal brittle and unsafe to use. It took a long time to work out how to treat coal to make it useful for many industrial applications. And, in the meantime, charcoal worked perfectly well. And then, well, we stopped using it. In retrospect, that’s a pity. When it comes from a sustainable source, charcoal burning is essentially carbon-neutral, because it doesn’t release any new carbon into the atmosphere – not that this would have been a consideration for the early industrialists. But charcoal-based industry didn’t die out altogether. In fact, it survived to flourish in Brazil. Because it has substantial iron deposits but few coalmines, Brazil is the largest charcoal producer in the world and the ninth biggest steel producer. We aren’t talking about a cottage industry here, and this makes Brazil a very encouraging example for our thought experiment. The trees used in Brazil’s charcoal industry are mainly fast-growing eucalyptus, cultivated specifically for the purpose. The traditional method for creating charcoal is to pile chopped staves of air-dried timber into a great dome-shaped mound and then cover it with turf or soil to restrict airflow as the wood smoulders. The Brazilian enterprise has scaled up this traditional craft to an industrial operation. Dried timber is stacked into squat, cylindrical kilns, built of brick or masonry and arranged in long lines so that they can be easily filled and unloaded in sequence. The largest sites can sport hundreds of such kilns. Once filled, their entrances are sealed and a fire is lit from the top. The skill in charcoal production is to allow just enough air into the interior of the kiln. There must be enough combustion heat to drive out moisture and volatiles and to pyrolyse the wood, but not so much that you are left with nothing but a pile of ashes. The kiln attendant monitors the state of the burn by carefully watching the smoke seeping out of the top, opening air holes or sealing with clay as necessary to regulate the process. Brazil shows how the raw materials of modern civilisation can be supplied without reliance on fossil fuels Good things come to those who wait, and this wood pyrolysis process can take up to a week of carefully controlled smouldering. The same basic method has been used for millennia. However, the ends to which the fuel is put are distinctly modern. Brazilian charcoal is trucked out of the forests to the country’s blast furnaces where it is used to transform ore into pig iron. This pig iron is the basic ingredient of modern mass-produced steel. The Brazilian product is exported to countries such as China and the US where it becomes cars and trucks, sinks, bathtubs, and kitchen appliances. Around two-thirds of Brazilian charcoal comes from sustainable plantations, and so this modern-day practice has been dubbed ‘green steel’. Sadly, the final third is supplied by the non-sustainable felling of primary forest. Even so, the Brazilian case does provide an example of how the raw materials of modern civilisation can be supplied without reliance on fossil fuels. Another, related option might be wood gasification. The use of wood to provide heat is as old as mankind, and yet simply burning timber only uses about a third of its energy. The rest is lost when gases and vapours released by the burning process blow away in the wind. Under the right conditions, even smoke is combustible. We don’t want to waste it. Better than simple burning, then, is to drive the thermal breakdown of the wood and collect the gases. You can see the basic principle at work for yourself just by lighting a match. The luminous flame isn’t actually touching the matchwood: it dances above, with a clear gap in between. The flame actually feeds on the hot gases given off as the wood breaks down in the heat, and the gases combust only once they mix with oxygen from the air. Matches are fascinating when you look at them closely. Wartime gasifier cars could achieve about 1.5 miles per kilogram. Today’s designs improve upon this To release these gases in a controlled way, bake some timber in a closed container. Oxygen is restricted so that the wood doesn’t simply catch fire. Its complex molecules decompose through a process known as pyrolysis, and then the hot carbonised lumps of charcoal at the bottom of the container react with the breakdown products to produce flammable gases such as hydrogen and carbon monoxide. The resultant ‘producer gas’ is a versatile fuel: it can be stored or piped for use in heating or street lights, and is also suitable for use in complex machinery such as the internal combustion engine. More than a million gasifier-powered cars across the world kept civilian transport running during the oil shortages of the Second World War. In occupied Denmark, 95 per cent of all tractors, trucks and fishing boats were powered by wood-gas generators. The energy content of about 3 kg of wood (depending on its dryness and density) is equivalent to a litre of petrol, and the fuel consumption of a gasifier-powered car is given in miles per kilogram of wood rather than miles per gallon. Wartime gasifier cars could achieve about 1.5 miles per kilogram. Today’s designs improve upon this. But you can do a lot more with wood gases than just keep your vehicle on the road. It turns out to be suitable for any of the manufacturing processes needing heat that we looked at before, such as kilns for lime, cement or bricks. Wood gas generator units could easily power agricultural or industrial equipment, or pumps. Sweden and Denmark are world leaders in their use of sustainable forests and agricultural waste for turning the steam turbines in power stations. And once the steam has been used in their ‘Combined Heat and Power’ (CHP) electricity plants, it is piped to the surrounding towns and industries to heat them, allowing such CHP stations to approach 90 per cent energy efficiency. Such plants suggest a marvellous vision of industry wholly weaned from its dependency on fossil fuel. Is that our solution, then? Could our rebooting society run on wood, supplemented with electricity from renewable sources? Maybe so, if the population was fairly small. But here’s the catch. These options all presuppose that our survivors are able to construct efficient steam turbines, CHP stations and internal combustion engines. We know how to do all that, of course – but in the event of a civilisational collapse, who is to say that the knowledge won’t be lost? And if it is, what are the chances that our descendants could reconstruct it? In our own history, the first successful application of steam engines was in pumping out coal mines. This was a setting in which fuel was already abundant, so it didn’t matter that the first, primitive designs were terribly inefficient. The increased output of coal from the mines was used to first smelt and then forge more iron. Iron components were used to construct further steam engines, which were in turn used to pump mines or drive the blast furnaces at iron foundries. And of course, steam engines were themselves employed at machine shops to construct yet more steam engines. It was only once steam engines were being built and operated that subsequent engineers were able to devise ways to increase their efficiency and shrink fuel demands. They found ways to reduce their size and weight, adapting them for applications in transport or factory machinery. In other words, there was a positive feedback loop at the very core of the industrial revolution: the production of coal, iron and steam engines were all mutually supportive. In a world without readily mined coal, would there ever be the opportunity to test profligate prototypes of steam engines, even if they could mature and become more efficient over time? How feasible is it that a society could attain a sufficient understanding of thermodynamics, metallurgy and mechanics to make the precisely interacting components of an internal combustion engine, without first cutting its teeth on much simpler external combustion engines – the separate boiler and cylinder-piston of steam engines? It took a lot of energy to develop our technologies to their present heights, and presumably it would take a lot of energy to do it again. Fossil fuels are out. That means our future society will need an awful lot of timber. An industrial revolution without coal would be, at a minimum, very difficult In a temperate climate such as the UK’s, an acre of broadleaf trees produces about four to five tonnes of biomass fuel every year. If you cultivated fast-growing kinds such as willow or miscanthus grass, you could quadruple that. The trick to maximising timber production is to employ coppicing – cultivating trees such as ash or willow that resprout from their own stump, becoming ready for harvest again in five to 15 years. This way you can ensure a sustained supply of timber and not face an energy crisis once you’ve deforested your surroundings. But here’s the thing: coppicing was already a well-developed technique in pre-industrial Britain. It couldn’t meet all of the energy requirements of the burgeoning society. The central problem is that woodland, even when it is well-managed, competes with other land uses, principally agriculture. The double-whammy of development is that, as a society’s population grows, it requires more farmland to provide enough food and also greater timber production for energy. The two needs compete for largely the same land areas. We know how this played out in our own past. From the mid-16th century, Britain responded to these factors by increasing the exploitation of its coal fields – essentially harvesting the energy of ancient forests beneath the ground without compromising its agricultural output. The same energy provided by one hectare of coppice for a year is provided by about five to 10 tonnes of coal, and it can be dug out of the ground an awful lot quicker than waiting for the woodland to regrow. It is this limitation in the supply of thermal energy that would pose the biggest problem to a society trying to industrialise without easy access to fossil fuels. This is true in our post-apocalyptic scenario, and it would be equally true in any counterfactual world that never developed fossil fuels for whatever reason. For a society to stand any chance of industrialising under such conditions, it would have to focus its efforts in certain, very favourable natural environments: not the coal-island of 18th-century Britain, but perhaps areas of Scandinavia or Canada that combine fast-flowing streams for hydroelectric power and large areas of forest that can be harvested sustainably for thermal energy. Even so, an industrial revolution without coal would be, at a minimum, very difficult. Today, use of fossil fuels is actually growing, which is worrying for a number of reasons too familiar to rehearse here. Steps towards a low-carbon economy are vital. But we should also recognise how pivotal those accumulated reservoirs of thermal energy were in getting us to where we are. Maybe we could have made it the hard way. A slow-burn progression through the stages of mechanisation, supported by a combination of renewable electricity and sustainably grown biomass, might be possible after all. Then again, it might not. We’d better hope we can secure the future of our own civilisation, because we might have scuppered the chances of any society to follow in our wake.

#### Can’t rebuild industrial civilization.

John **Jacobi 17**. Leads an environmentalist research institute and collective, citing Fred Hoyle, British astronomer, formulated the theory of stellar nucleosynthesis, coined the term “big bang,” recipient of the Gold Medal of the Royal Astronomical Society, professor at the Institute of Astronomy, Cambridge University. 05-27-17. “Industrial Civilization Could Not Be Rebuilt.” The Wild Will Project. <https://www.wildwill.net/blog/2017/05/27/industrial-civilization-not-rebuilt/>

A suggestion, for the sake of thought: If industrial civilization collapsed, it probably could not be rebuilt. Civilization would exist again, of course, but industry appears to be a one-time experiment. The astronomist Fred Hoyle, exaggerating slightly, writes: It has often been said that, if the human species fails to make a go of it here on Earth, some other species will take over the running. In the sense of developing high intelligence this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned. With coal gone, oil gone, high-grade metallic ores gone, no species however competent can make the long climb from primitive conditions to high-level technology. This is a one-shot affair. If we fail, this planetary system fails so far as intelligence is concerned. The same will be true of other planetary systems. On each of them there will be one chance, and one chance only. Hoyle overstates all the limits we actually have to worry about, but there are enough to affirm his belief that industry is a “one-shot affair.” In other words, if industry collapsed then no matter how quickly scientific knowledge allows societies to progress, technical development will hit a wall because the builders will not have the needed materials. For example, much of the world’s land is not arable, and some of the land in use today is only productive because of industrial technics developed during the agricultural revolution in the 60s, technics heavily dependent on oil. Without the systems that sustain industrial agriculture much current farm land could not be farmed; agricultural civilizations cannot exist there, at least until the soil replenishes, if it replenishes. And some resources required for industrial progress, like coal, simply are not feasibly accessible anymore. Tainter writes: . . . major jumps in population, at around A.D. 1300, 1600, and in the late eighteenth century, each led to intensification in agriculture and industry. As the land in the late Middle Ages was increasingly deforested to provide fuel and agricultural space for a growing population, basic heating, cooking, and manufacturing needs could no longer be met by burning wood. A shift to reliance on coal began, gradually and with apparent reluctance. Coal was definitely a fuel source of secondary desirability, being more costly to obtain and distribute than wood, as well as being dirty and polluting. Coal was more restricted in its spatial distribution than wood, so that a whole new, costly distribution system had to be developed. Mining of coal from the ground was more costly than obtaining a quantity of wood equivalent in heating value, and became even more costly as the 54 most accessible reserves of this fuel were depleted. Mines had to be sunk ever deeper, until groundwater flooding became a serious problem. Today, most easily accessible natural coal reserves are completely depleted. Thus, societies in the wake of our imagined collapse would not be able to develop fast enough to reach the underground coal. As a result of these limits, rebuilding industry would take at least thousands of years — it took 10,000 years the first time around. By the time a civilization reached the point where it could do something about industrial scientific knowledge it probably would not have the knowledge anymore. It would have to develop its sciences and technologies on its own, resulting in patterns of development that would probably look similar to historical patterns. Technology today depends on levels of complexity that must proceed in chronological stages. Solar panels, for example, rely on transportation infrastructure, mining, and a regulated division of labor. And historically the process of developing into a global civilization includes numerous instances of technical regression. The natives of Tasmania, for example, went from a maritime society to one that didn’t fish, build boats, or make bows and arrows. Rebuilding civilization would also be a bad idea. Most, who are exploited by rather than benefit from industry, would probably not view a rebuilding project as desirable. Even today, though citizens of first-world nations live physically comfortable lives, their lives are sustained by the worse off lives of the rest of the world. “Civilization . . . has operated two ways,” Paine writes, “to make one part of society more affluent, and the other more wretched, than would have been the lot of either in a natural state.” Consider the case of two societies in New Zealand, the Maori and the Moriori. Both are now believed to have originated out of the same mainland society. Most stayed and became the Maori we know, and some who became the Moriori people settled on the Chatham Islands in the 16th century. Largely due to a chief named Nunuku-whenua, the Moriori had a strict tradition of solving inter-tribal conflict peacefully and advocating a variant of passive resistance; war, cannibalism, and killing were completely outlawed. They also renounced their parent society’s agricultural mode of subsistence, relying heavily on hunting and gathering, and they controlled their population growth by castrating some male infants, so their impact on the non-human environment around them was minimal. In the meantime, the Maori continued to live agriculturally and developed into a populated, complex, hierarchical, and violent society. Eventually an Australian seal-hunting ship informed the Maori of the Moriori’s existence, and the Maori sailed to the Chathams to explore: . . . over the course of the next few days, they killed hundreds of Moriori, cooked and ate many of the bodies, and enslaved all the others, killing most of them too over the next few years as it suited their whim. A Moriori survivor recalled, “[The Maori] commenced to kill us like sheep . . . [We] were terrified, fled to the bush, concealed ourselves in holes underground, and in any place to escape our enemies. It was of no avail; we were discovered and eaten – men, women, and children indiscriminately.” A Maori conqueror explains, “We took possession . . . in accordance with our customs and we caught all the people. Not one escaped. Some ran away from us, these we killed, and others we killed – but what of that? It was in accordance with our custom.” Furthermore, we can deduce from the ubiquitous slavery in all the so-called “great civilizations” like Rome or Egypt that any attempt to rebuild a similar civilization will involve slavery. And to rebuild industry, something similar to colonization and the Trans-Atlantic Slave Trade would probably have to occur once again. After all, global chattel slavery enabled the industrial revolution by financing it, extracting resources to be accumulated at sites of production, and exporting products through infrastructure that slavery helped sustain. So, if industrial society collapsed, who would be doing the rebuilding? Not anyone most people like. It is hard to get a man to willingly change his traditional way of life; even harder when his new life is going into mines. And though history demonstrates that acts like those of the Maori or slave traders are not beyond man’s will or ability, certainly most in industrial society today would not advocate going through the phases required to reach the industrial stage of development.

#### The military is developing isomer bombs---even just testing will destroy the Universe

Gary S. Bekkum 4, Founder of Spacetime Threat Assessment Report Research, Founder of STARstream Research, Futurist, “American Military is Pursuing New Types of Exotic Weapons”, Pravda, 8-30, <https://www.pravdareport.com/science/5527-weapons/>

In recent years it has been discovered that our universe is being blown apart by a mysterious anti-gravity effect called "dark energy". Mainstream physicists are scrambling to explain this mysterious acceleration in the expansion of the universe. Some physicists even believe that the expansion will lead to "The Big Rip" when all of the matter in the universe is torn asunder - from clusters of galaxies in deep space down to the tiniest atomic particles. The universe now appears to be made of two unknowns - roughly 23% is "dark matter", an invisible source of gravity, and roughly 73% is "dark energy", an invisible anti-gravity force. Ordinary matter constitutes perhaps 4 percent of the universe. Recently the British science news journal "New Scientist" revealed that the American military is pursuing new types of exotic bombs - including a new class of isomeric gamma ray weapons. Unlike conventional atomic and hydrogen bombs, the new weapons would trigger the release of energy by absorbing radiation, and respond by re-emitting a far more powerful radiation. In this new category of gamma-ray weapons, a nuclear isomer absorbs x-rays and re-emits higher frequency gamma rays. The emitted gamma radiation has been reported to release 60 times the energy of the x-rays that trigger the effect. The discovery of this isomer triggering is fairly recent, and was first reported in a 1999 paper by an international group of scientists. Although this controversial development has remained fairly obscure, it has not been hidden from the public. Beyond the visible part of defense research is an immense underground of secret projects considered so sensitive that their very existence is denied. These so-called "black budget programs" are deliberately kept from the public eye and from most political leaders. CNN recently reported that in the United States the black budget projects for 2004 are being funded at a level of more than 20 billion dollars per year. In the summer of 2000 I contacted Nick Cook, the former aviation editor and aerospace consultant to Jane's Defence Weekly, the international military affairs journal. Cook had been investigating black budget super-secret research into exotic physics for advanced propulsion technologies. I had been monitoring electronic discussions between various American and Russian scientists theorizing about rectifying the quantum vacuum for advanced space drive. Several groups of scientists, partitioned into various research organizations, were exploring what NASA calls "Breakthrough Propulsion Physics" - exotic technologies for advanced space travel to traverse the vast distances between stars. Partly inspired by the pulp science fiction stories of their youth, and partly by recent reports of multiple radar tracking tapes of unidentified objects performing impossible maneuvers in the sky, these scientists were on a quest to uncover the most likely new physics for star travel. The NASA program was run by Marc Millis, financed under the Advanced Space Transportation Program Office (ASTP). Joe Firmage, then the 28-year-old Silicon Valley CEO of the three billion dollar Internet firm US Web, began to fund research in parallel with NASA. Firmage hired a NASA Ames nano-technology scientist, Creon Levit, to run the "International Space Sciences Organization", a move which apparently alarmed the management at NASA. The San Francisco based Hearst Examiner reported that NASA's Office of Inspector General assigned Special Agent Keith Tate to investigate whether any proprietary NASA technology might have been leaking into the private sector. Cook was intrigued when I pointed out the apparent connections between various private investors, defense contractors, NASA, INSCOM (American military intelligence), and the CIA. While researching exotic propulsion technologies Cook had heard rumors of a new kind of weapon, a "sub-quantum atomic bomb", being whispered about in what he called ⌠the dark halls of defense research. Sub-quantum physics is a controversial re-interpretation of quantum theory, based on so-called pilot wave theories, where an information field controls quantum particles. The late Professor David Bohm showed that the predictions of ordinary quantum mechanics could be recast into a pilot wave information theory. Recently Anthony Valentini of the Perimeter Institute has suggested that ordinary quantum theory may be a special case of pilot wave theories, leaving open the possibility of new and exotic non-quantum technologies. Some French, Serbian and Ukrainian physicists have been working on new theories of extended electrons and solitons, so perhaps a sub-quantum bomb is not entirely out of the question. Even if the rumors of a sub-quantum bomb are pure fantasy, there is no question that mainstream physicists seriouslycontemplate a phase transition in the quantum vacuum as a real possibility. The quantum vacuum defies common sense, because empty space in quantum field theory is actually filled with virtual particles. These virtual particles appear and disappear far too quickly to be detected directly, but their existence has been confirmed by experiments that demonstrate their influence on ordinary matter.

"Such research should be forbidden!"

In the early 1970's Soviet physicists were concerned that the vacuum of our universe was only one possible state of empty space. The fundamental state of empty space is called the "true vacuum". Our universe was thought to reside in a "false vacuum", protected from the true vacuum by "the wall of our world". A change from one vacuum state to another is known as a phase transition. This is analogous to the transition between frozen and liquid water. Lev Okun, a Russian physicist and historian recalls Andrei Sakharov, the father of the Soviet hydrogen bomb, expressing his concern about research into the phase transitions of the vacuum. If the wall between vacuum states was to be breached, calculations showed that an unstoppable expanding bubble would continue to grow until it destroyed our entire universe! Sakharov declared that "Such research should be forbidden!" According to Okun, Sakharov feared that an experiment might accidentally trigger a vacuum phase transition.

#### Nanotech is quickly coming online---it’ll become self-replicating and destroy the Universe

Hu 18 – Jiaqi Hu, Humanities Scholar and President and Chief Scientist of the Beijing Jianlei International Decoration Engineering Company and 16Lao Group, Graduate of Dongbei University, Elected as the Chinese People’s Consultative Conference Member for Beijing Mentougou District, Saving Humanity: Truly Understanding and Ranking Our World's Greatest Threats, p. 208-210

As a unit of measurement, a nanometer is 10^9 meters (or one billionth of a meter); it is roughly one 50,000th of a strand of hair and is commonly used in the measuring of atoms and molecules. In 1959, Nobel Prize winner and famous physicist Richard Feynman first proposed in a lecture entitled "There's Plenty of Room at the Bottom" that humans might be able to create molecule-sized micro-machines in the future and that it would be another technological revolution. At the time, Feynman's ideas were ridiculed, but subsequent developments in science soon proved him to be a true visionary. In 1981, scientists developed the scanning tunneling microscope and finally reached nano-level cognition. In 1990, IBM scientists wrote the three letters "IBM" on a nickel substrate by moving thirty-five xenon atoms one by one, demonstrating that nanotechnology had become capable of transporting single atoms. Most of the matter around us exists in molecule forms, which are composed of atoms. The ability to move atoms signaled an ability to perform marvelous feats. For example, we could move carbon atoms to form diamonds, or pick out all the gold atoms in low-grade gold mines. However, nanotechnology would not achieve any goals of real significance if solely reliant on manpower. There are hundreds of millions of atoms in a needle-tip-sized area—even if a person committed their life to moving these atoms, no real value could be achieved. Real breakthroughs in nanotechnology could only be produced by nanobots. Scientists imagined building molecule-sized robots to move atoms and achieve goals; these were nanobots. On the basis of this hypothesis, scientists further postulated the future of nanotechnology; for example, nanobots might be able to enter the bloodstream and dispose of cholesterol deposited in the veins; nanobots could track cancer cells in the body and kill them at their weakest moment; nanobots could instantly turn newly-cut grass into bread; nanobots could transform recycled steel into a brand new-car in seconds. In short, the future of nanotechnology seemed incredibly bright. This was not the extent of nanotechnology's power. Scientists also discovered that nanotechnology could change the properties of materials. In 1991, when studying C60, scientists discovered carbon nanotubes (CNTs) that were only a few nanos in diameter. The carbon nanotube became known as the king of nano materials due to its superb properties; scientists believed that it would produce great results when applied to nanobots. Later, scientists also developed a type of synthetic molecular motor that derived energy from the high-energy adenosine triphosphate (ATP) that powered intracellular chemical reactions. The success of molecular motor research solved the core component problem of nano machines; any molecular motor grafted with other components could turn into a nano machine, and nanobots could use them for motivation. In May 2004, American chemists developed the world’s first nanobot: a bipedal molecular robot that looked like a compass with ten-nanometer-long legs. This nanobot was composed of DNA fragments, including thirty-six base pairs, and it could "stroll" on plates in the laboratory. In April 2005, Chinese scientists developed nano-scale robotic prototypes as well. In June of 2013, the Tohoku University used peptide protein micro-tablets to successfully create nanobots that could enter cells and move on the cell membrane. In July 2017, researchers at the University of Rome and the Roman Institute of Nanotechnology announced the development of a new synthetic molecular motor that was bacteria-driven and light-controlled. The next step would be to get nanobots to move atoms or molecules. Compared to the value produced by a nanobot, they are extremely expensive to create. The small size of nanobots means that although they can accomplish meaningful tasks, they are often very inefficient. Even if a nanobot toiled day and night, its achievements would only be calculated in terms of atoms, making its practical total attainment relatively small. Scientists came up with a solution for this problem. They decided to prepare two sets of instructions when programming nanobots. The first set of instructions would set out tasks for the nanobot, while the second set would order the nanobot to self-replicate. Since nanobots are capable of moving atoms and are themselves composed of atoms, self-replication would be fairly easy. One nanobot could replicate into ten, then a hundred, and then a thousand . . . billions could be replicated in a short period of time. This army of nanobots would greatly increase their efficiency. One troublesome question that arises from this scenario is: how would nanobots know when to stop self-replicating? Human bodies and all of Earth are composed of atoms; the unceasing replication of nanobots could easily swallow humanity and the entire planet. If these nanobots were accidentally transported to other planets by cosmic dust, the same fate would befall those planets. This is a truly terrifying prospect. Some scientists are confident that they can control the situation. They believe that it is possible to design nanobots that are programmed to self-destruct after several generations of replication, or even nanobots that only self-replicate in specific conditions. For example, a nanobot that dealt with garbage refurbishing could be programmed to only self-replicate around trash using trash. Although these ideas are worthy, they are too idealistic. Some more rational scientists have posed these questions: What would happen if nanobots malfunctioned and did not terminate their self-replication? What would happen if scientists accidentally forgot to add self-replication controls during programming? What if immoral scientists purposefully designed nanobots that would not stop self-replicating? Any one of the above scenarios would be enough to destroy both humanity and Earth. Chief scientist of Sun Microsystems, Bill Joy, is a leading, world-renowned scientist in the computer technology field. In April of 1999, he pointed out that if misused, nanotechnology could be more devastating than nuclear weapons. If nanobots self-replicated uncontrollably, they could become the cancer that engulfs the universe. If we are not careful, nanotechnology might become the Pandoras box that destroys the entire universe and all of humanity with it. We all understand that one locust is insignificant, but hundreds of millions of locusts can destroy all in their path. If self-replicating nanobots are really achieved in the future, it might signify the end of humanity. If that day came, nothing could stop unethical scientists from designing nanobots that suited their immoral purposes. Humans are not far from mastering nanotechnology. The extremely tempting prospects of nanotechnology have propelled research of nanobots and nanotechnology. The major science and technology nations have devoted particular efforts to this field.

#### Tech advancements make future time travel certain

Awes Faghi Elmi 18, Contributing Writer at n’world Publications, BS in Forensic Science from London South Bank University, Extended Diploma in Physics with Distinction from Leyton Sixth Form College, Futurist, “Technological Progress Might Make Possible Time Travel And Teleportation”, Medium, 8-13, <https://medium.com/nworld-publications/technological-progress-might-make-possible-time-travel-and-teleportation-45176c3c89bc> [typo edited]

This is a question that many people ask their-selves. This question has occurred many times. It is said that time travel is possible and in fact it is. The key things needed to travel through time are speed and kinetic energy. Einstein’s theory also known as the theory of relativity can be used ro understand how to deal with travelling to the future. Einstein showed that travelling forward in time is easy. According to Einstein’ theory of relativity, time passes at different rates for people who are moving relative to one another although the effect only becomes large when you get close to the speed of light. Time travel sometime can cause side effects called paradoxes. These paradoxes can occur especially when going back in time. As if only one thing even the minimum of the details can change something big may happen in the future. Another scientist who believes that time travel is possible after Einstein is Brian Cox who as Einstein believes that we are only going to be able to travel in the future. This obviously would happen if having a super-fast machine that allows you to go into the future. Cox also agrees on Einstein’s theory of relativity which states that to travel forward in time, something needs to reach speeds close to the speed of light. As it approaches these speeds, time slows down but only for that specific object. They both think as said, that time travel to the future is possible however travelling back in time is impossible, as something must be really as fast as the speed of light. This however for some scientists can be wrong. They state that with the technology that we have now it could be possible to build some sort of machine who will actually be able to travel in both future and past. A wormhole as shown in the image is a theoretical passage through space-time that could create shortcuts for long journeys across the universe. Wormholes are predicted by the theory of general relativity. However, wormholes bring with them the dangers of sudden collapse, high radiation and dangerous contact with exotic matter. The public knows that time travel is possible but humans at the moment are not able to. However other sources except theories of the past are currently trying to develop a way of time travel. The audience actually cannot wait that this will happen as many media state, such as BBC. Many TV programmes talk about both time travel and teleportation.

#### That collapses the Universe

Steve Bowers 16, Control Officer in the United Kingdom, Executive Editor and Moderator of the Orion’s Arm Universe Project, Contributing Author for the Orion’s Arm Novella Collection, “WHY NO TIME TRAVEL IN OA”, 1-1, <https://orionsarm.com/page/77>

If the universe does allow reverse time travel, usable by sentient/sophont entities, it won't stop at one or two little historical research trips . . . If there is no effective chronological protection mechanism, the universe of today will be overrun with travellers from the future. Even if there is no 'Big Rip' where the Universe tears itself apart through accelerating expansion, hundreds of trillions of years from now the cosmos will be a slowly dying place. Even red dwarf stars will eventually burn out, leaving the inhabitants of the far future only their dying embers to gather energy from, although the creation and merger of black holes could perhaps keep civilisation going for an (admittedly very long) while. Eventually the entities of the far future will be limited to reversible computation to save energy. This means confining themselves to a very limited set of mental processes. This prospect would surely not appeal to the heirs of once-mighty advanced civilisations. If time travel were possible then refugees from the far future would flood back, sometimes in multiple instances. The future sophonts would come back in an exponentiating wave to constantly change the present and the past, and whole galaxies of material particles will begin to exist in space time reference that did not have them before - some? many? most? matter and events may turn out to be acausal, going round and round in closed timelike loops and increasing the total mass of the universe, which may begin to collapse in the distant future, sending chronistic refugees in massive tardises back to our time thus accelerating the collapse; increasing the mass of the present day universe until it collapses. The collapse will get closer to the present day, until it eventually happened yesterday and we will cease to exist . . . believe me, you don't want to go there. For an explanation how under certain circumstances a wormhole can connect different parts of the universe without causing temporal paradoxes see this page.

#### Dark matter research is massively increasing

Bertone 18 [Dr. Gianfranco Bertone, Professor in the GRAPPA Institute and Institute of Physics at the University of Amsterdam, PhD in Astrophysics from the University of Oxford, and Dr. Tim M.P. Tait, Professor in the Department of Physics and Astronomy at the University of California, Irvine, PhD in Physics from Michigan State University, BSc in Physics from UC San Diego, Former Research Associate at the Fermi National Accelerator Laboratory and Argonne National Laboratory, "A New Era in the Quest for Dark Matter", Nature, 10/4/18, <https://arxiv.org/pdf/1810.01668.pdf> ]////LRCH Jrhee recut

In the quest for dark matter, naturalness has been the guiding principle since the dark matter problem was established in the early 1980s. Although the absence of evidence for new physics at the LHC does not rule out completely natural theories, we have argued that a new era in the search for dark matter has begun, the new guiding principle being “no stone left unturned”: from fuzzy dark matter (10−22 eV) to primordial black holes (10 M ), we should look for dark matter wherever we can. It is important to exploit to their fullest extent existing experimental facilities, most notably the LHC, whose data might still contain some surprises. And it is important to complete the search for WIMPs with direct detection experiments, until their sensitivity reaches the so-called neutrino floor94 . At the same time we believe it is essential to diversify the experimental effort, and to test the properties of dark matter with gravitational waves interferometers and upcoming astronomical surveys, as they can provide complementary information about the nature of dark matter. New opportunities in extracting such information from data arise from the booming field of machine learning, which is currently transforming many aspects of science and society. Machine learning methods have been already applied to a variety of dark matter-related problems, ranging from the identification of WIMPs from particle and astroparticle data95, 96 to the detection of gravitational lenses97, and from radiation patterns inside jets of quarks and gluons at the LHC98 to real-time gravitational waves detection99. In view of this shift of the field of dark matter searches towards a more data-driven approach, we believe it is urgent to fully embrace, and whenever possible to further develop, big data tools that allow to organize in a coherent and systematic way the avalanche of data that will become available in particle physics and astronomy in the next decade.

#### Causes quantum effects that collapse the vacuum—destroys the universe

Arkell 14 [Esther Inglis-, Contributor to the Genetic Literacy Project, Contributing Editor and Senior Reporter at io9, Freelance Writer for Ars Technica, BS in Physics from Dartmouth College, "We Might Be Destroying The Universe Just By Looking At It", io9 – Gizmodo, 2/3/14, <https://io9.gizmodo.com/we-might-be-destroying-the-universe-just-by-looking-at-1514652112> ]////LRCH Jrhee

It's not often that astronomy goes well with the book of Genesis. But this is a theory that evokes the line, "But of the tree of the knowledge, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die." In this theory, knowledge doesn't just kill you — it kills the entire universe. Indeed, one physicist speculates that continuous observation of the universe might put it into a state that will destroy us all. Our universe's eventual demise, in this case, springs from the fact that it wasn't properly created. The big question has always been, how does something come from nothing? If, in the beginning, there was nothing but a vacuum, devoid of energy or matter, where did the universe come from? As it turns out, not all vacuums are alike - some of them are what's called "false vacuums." They are "bubbles" of space that look like vacuums, but aren't actually at their bottom energy state. They can collapse at nearly any time, and go into their ground energy state. The collapse of such a false vacuum releases energy. At first, many physicists thought this is how our universe began. A false vacuum collapsed down to a true one, and the matter and energy of our universe was the result of its collapse. It's also possible that the collapsing false vacuum didn't create a true vacuum. It simply created, along with all that matter and energy, another false vacuum. The universe we live in now might simply be a long-lived bubble of false vacuum that's not really at its lowest energy state. If you have trouble believing that the vacuum of space that astronomers observe isn't at its lowest energy state - ask yourself what dark energy is if not a higher-than-expected energy state for the universe. We might be in a fragile, and unstable, bubble of universe that could collapse at any time. It's unpleasant to think the universe might collapse out of existence at any moment. Especially since, as the collapse won't exceed the speed of light, we'll probably see it coming for us, knowing we're unable to escape it. Fortunately, we have (theoretical) options. Dark energy drives the expansion of the universe. Although bubbles decay, they decay along different lines according to the energy state they're in when they start collapsing. If they're in a high energy state, the rate of decay is also high. If they're in a low energy state, the rate of decay is slow. Put the fast rate of decay in a race against the expansion of the universe, and we are all winked out of existence. Put the slow rate of decay in that same race, and we all have the chance to live productive lives. The problem is, when we observe a system, we can keep it in a certain state. Studies have shown that repeatedly observing the state of an atom set to decay can keep that atom in its higher-energy state. When we observe the universe, especially the "dark" side of the universe, we might be keeping it in its higher-energy state. If the process of collapse happens when it is in that state, the universe will cease to exist. If we stop looking, and the universe quietly shifts to a state at which its decay is slower, then we're all saved. The more we look at the universe, the more likely it is to end.

#### Grey goo will be rapidly developed and weaponized now

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In the now classic Engines of Creation, Eric Drexler imagined the apex of nanotechnology – a molecular assembler that could rearrange atoms individually to produce nanomachines. Such a molecular assembler can in principle reproduce itself. If this reproduction cycle was in some way corrupted, the assembler could begin producing indefinite copies. Exponential growth of assemblers would rapidly result in the conversion of large fractions of a planet’s mass into assemblers. This is referred to as the ‘grey goo’ scenario. Freitas (2000) further sub-categorises this into grey goo (land based), grey lichen (chemolithotrophs), grey plankton (ocean based) and grey dust (airborne). Assuming that molecular assemblers are possible, what can be done to mitigate against this risk? Careful engineering can ensure that there is a rate-limiting resource in replication. If the assembler can use commonly found materials to replicate, then its growth is unlimited. If the assembler requires some rare element or compound, then replication will cease when that element is exhausted. Like biological replicators, one might imagine that mutation or copying errors may find templates that bypass this element, and exponential growth recommences unabated. Freitas (2000) imagined a range of defence mechanisms specifically designed to dismantle assemblers, being triggered by the byproducts of assembly (e.g., waste heat). Producing a fleet of ‘goodbots’ to dismantle or remove corrupted assemblers is one such strategy. Is a grey goo scenario likely on Earth? In 2004, the Royal Society published a report on the then consensus – that molecular assembly itself is unlikely to be produceable technology in the foreseeable future, due to fundamental physical constraints on locating individual atoms. On the other hand, molecular assemblers exist in nature. Organisms depend on molecular assembly for a range of fundamental processes. Molecular machines exploiting these biological processes are very possible, and currently being produced in research labs. Constructing a molecular assembler from these machine components remains challenging. Perhaps the best way to mitigate this risk is to simply not build autonomous assemblers. Phoenix and Drexler (2004) suggest that centrally controlled assemblers are more efficient at manufacturing, and hence the desire for assemblers to be able to replicate themselves is at odds with industrial goals. Of course, a molecular assembler could be weaponised. We may need to consider grey goo as an associated risk with future conflicts.

#### Devours all carbon---extinction.

---A2: benevolent nanotech

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In a lecture delivered in 1948, mathematician John Von Neumann first described the potential for machines to build perfect copies of themselves using material sourced from the world around them. Almost immediately, people began to worry about what might happen if they never stopped. Writing decades later about the science of molecular nanotechnology – in other words, microscopically small man-made machines – Eric Drexler gave this worry a name: Gray Goo. A Gray Goo scenario works something like this: Imagine a piece of self-replicating nanotechnology manufactured for a purely benevolent reason. Say, a micro-organism designed to clean up oil slicks by consuming them and secreting some benign by-product. So far, so good. Except the organism can’t seem to distinguish between the carbon atoms in the oil slick and the carbon atoms in the sea vegetation, ocean fauna, and human beings around it all that well. Flash forward a few thousand generations – perhaps not a very long time in our imagined micro-organism’s life cycle – and everything on Earth containing even a speck of carbon has been turned into a benign, gray, and gooey byproduct of its digestive process.