

Societal Collapse and Intergenerational Disparities in Suffering

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ABSTRACT: The collapse of society is inevitable, even if it is in the distant future. When it collapses, it is likely to do so within the lifetimes of some people. These people will have matured in pre-collapse society, experience collapse, and then live the remainder of their lives in the post-collapse world. I argue that this group of people—the transitional generation—will be the worst off from societal collapse, far worse than subsequent generations. As the transitional generation, they will suffer disparately. This intergenerational disparity in suffering is inequitable. Given that other disparities in suffering are worthy of remediation, this intergenerational disparity in suffering is worthy of remediation. However, the only way to do so is to target the mental states of the members of the transitional generation.

Keywords: societal collapse, suffering, social justice, memory

Human society will collapse someday. Societies have collapsed before and will continue to collapse. Unless humans can figure out how to either become disembodied, occupy space, or inhabit other planets, the death of the sun billions of years from now will mark the collapse of human society. Considering societal collapse and the associated neuroethics may initially seem like a knee-jerk reaction to the current state of public affairs (e.g., wars, pandemic, climate change). And it may be that. But that a consideration arises from the jerk of a knee doesn't imply that it isn't an important or worthwhile consideration. There is a non-negligible possibility that global society will collapse, and that it will do so in the not-so-distant future.[1] Climate change may be the most likely catalyst. But others include prolonged pandemic, the collapse of global trade, the political rise of inept dictators, or non-anthropogenic events such as geological or astronomical catastrophe.

The likelihood that global society collapses is significant enough to warrant its consideration. Even more likely, indeed, certain, and no less relevant for the argument that follows, is that individual nations or states collapse. This is of course already happening (or happened) in, for examples, Syria and Sudan. Even if global society will not collapse, smaller societies within the larger global society will.

Considerations of social justice and equity are obviously of significant social and political importance. The worldwide social and political movements to repair social inequities in outcomes and opportunities continue to motivate policies and behaviors. Most often, these movements are directed at the improvement of life for specific populations, such as racial and ethnic minorities, women, people whose gender is non-binary, or otherwise vulnerable populations. One social group that authors have so far neglected to attend to is the group of people who will suffer most from societal collapse.

Societal collapse will be bad, but it will be especially bad for those who live through it. Societal collapse, whether it is global or local, shifts resources, opportunities, burdens, and outcomes between and within social groups. When the distribution of these things shifts, so does the distribution of justice. The people who mature in a pre-collapse world but then live through collapse and spend the rest of their lives in the post-collapse world will suffer disparately, from the shift of these resources. *Societal collapse entails intergenerational inequities in suffering.* If the pursuit of social justice demands intervention to repair or prevent inequities in suffering between social groups, then we should consider the group of people who live through collapse right alongside other groups who warrant consideration. The aim of what follows is to establish this intergenerational inequity and motivate the justification for intervening upon it.

In what follows, I set the stage by introducing the relevant features of societal collapse. I then introduce the notion of a transitional generation. A transitional generation is a group of people who will (a) be mature prior to the collapse, (b) experience the transition to the post-collapse world, and (c) live the remainder of their lives in the post-collapse world. Once I establish this idea, I argue that, relative to other generations, the transitional generation will suffer more and that this suffering is inequitable. I support this claim by outlining a range of philosophical accounts and showing that they all seem to imply that a transitional generation will suffer more. After

drawing this conclusion, I argue that a transitional generation is due no less consideration in matters of social justice than other social groups, such that if consideration and intervention on the latter is justified, then so is consideration and intervention on the former. I finish by remarking on what such interventions might look like, noting that the intervention would have to be on the mind of the sufferers.

1. Societal Collapse

Society will collapse someday. Very probably, when it does so it will be within the lifetimes of those living at the time. Societal collapse is difficult to define, but it involves some or all of the following: the loss of central administration, disappearance of an elite, decline in settlements, and a loss of social and political complexity.(Lawler, 2010). More specifically, Tainter, in perhaps the cornerstone scholarly text on societal collapse, writes (p. 4, italics in original):

A society has collapsed when it displays a rapid, significant loss of an established level of sociopolitical complexity...To qualify as an instance of collapse a society must have been at, or developing toward, a level of complexity for more than one or two generations...The collapse, in turn, must be rapid—taking no more than a few decades—and must entail a substantial loss of sociopolitical structure.[3]

Features of collapse include “less overall coordination and organization of individuals and groups,” “less behavioral control and regimentation,” and “less sharing, trading, and redistribution of resources,” among others. Tainter’s account shares these features of collapse with Renfrew’s.[4] For him, collapse is characterized by collapse of central administrative organization, disappearance of the traditional elite class, collapse of a centralized economy, settlement shift and population decline.

The causes of societal collapse are difficult to pinpoint. Often included among the likely causes are factors related to the society’s environment and how it has interacted with it.[5,6] For Tainter, collapse is primarily a loss of sociopolitical complexity. Diamond places greater emphasis on ecological factors, whereas for Schwarz collapse is more a

matter of social fragmentation exemplified by, for example, massive and rapid departures from urban centers.[5,7] None of the views of societal collapse is likely to be the whole story, nor are they mutually exclusive.

Life before collapse is also likely to be much different from life after collapse. After societal collapse most people will be less safe, less secure, sicker, and lacking basic needs. Access to health care treatment and prevention will be much more difficult. The infrastructure needed for reliable utilities will not deliver electricity, gas, or water. The failure of utilities will make things like refrigeration more difficult, which will obviously disrupt habits related to food storage and food consumption and the storage of common medicines. All of these services are enabled by complex sociopolitical structures and strong central organization. The collapse of these structures will disable these services.

Renfrew, in providing a model for the aftermath of societal collapse, writes that the post-collapse world exhibits, first, a transition to lower level of sociopolitical integration, characterized by (p. 483-484):

- Emergence of segmentary societies showing analogies with those seen centuries or millennia earlier in the "formative" level in the same area (only later do these reach a chiefdom or "florescent" level of development)
- Fission of realm to smaller territories, whose boundaries may relate to those of earlier polities;
- Possible peripheral survival of some highly organized communities still retaining several organizational features of the collapsed state;
- Survival of religious elements as "folk" cults and beliefs;
- Craft production at local level with "peasant" imitations of former specialist products (e.g., in pottery).
- Local movements of small population groups resulting from the breakdown in order at the collapse of the central administration (either with or without some language change), leading to destruction of many settlements;
- Rapid subsequent regeneration of chiefdom or even state society, partly influenced by the remains of its predecessor.[4]

The question is: how much worse will life be in the above conditions? On the face of it, the answer is something close to ‘a lot.’ Large municipalities provide utilities; chiefdoms don’t. Collapse involves people leaving cities for other settlements; in the aftermath these settlements may be destroyed. Generally, the evidence we have for what life is like post-collapse (see below) is not encouraging.

Research on societal collapse is, in the philosophical literature, underdeveloped, especially given its potential proximity and potential to upend human life. But the collapse of global or modern society, if it were to occur, would be among the most significant events in human history. Likely, societal collapse on the global scale will be rapid, especially after society reaches a “tipping point.”[8,9] This tipping point is not merely the point at which the conditions are determinative of collapse. Rather, it is the point at which the conditions are determinative of rapid collapse. A society doesn’t reach the tipping point and then go on as normal for a while and then, some long time later, collapse. Renfrew puts the time of collapse at 100 years.[4] Tainter claims it’s even shorter, just several decades. The Roman Empire collapsed in the span of at least some lifetimes, less than a hundred years. When it happens, it often happens fast.

There is of course debate about all of these matters. But even if societal collapse is infrequent, slow, and not terrible it will happen again at some point, both locally and globally. We may be presently ignorant about the exact causes of societal collapse and of how to predict it, but skepticism about it happening again doesn’t follow from this ignorance. We can know something will occur without being able to predict how or when. Tainter implies that social complexity inevitably results in collapse, given its ties to productivity and the diminishing returns of increasing complexity.[10] For the purposes of what follows, predictions about the specific details of societal collapse are irrelevant. What is relevant is the inductively justified claim that it will happen, both globally as well as locally, and that it will be bad.

People living post-collapse may expect to be sicker, in more pain, hungrier, thirstier, and more afraid. Being constantly displaced, a feature of the post-collapse world, implies less safety and security.[4] Most will have to find new ways to stay fed and hydrated, whether that means migrating, scavenging, hunting and gathering, bartering (to replace those trading partnerships that have been lost), developing new crafts, or

Penultimate Draft, please cite final draft forthcoming in *Neuroethics*

cultivating one's one food.[3] These practices all entail greater pain and suffering, relative to how most people currently acquire food and water.

Post-collapse, pain relief will be much more difficult, as the medicines that typically serve that function will be unavailable. Couple that with the fact that people will be more frequently in positions to be in pain, the totality of pain will be much higher post-collapse. Emotional pain is also likely to be significantly greater. Loved ones will die earlier and more frequently. Situations that induce fear, such as those that threaten safety and security, will be more frequent.

One might think that this paints too bleak a picture. Tainter (p. 7) recognizes this reaction, and reassures us that this Hobbesian world may be the one we actually inhabit. He writes:

Popular writers and film producers have developed a consistent image of what life will be like after the collapse of industrial society. With some variation, the picture that emerges is of a Hobbesian war-of-all-against-all...the weak are victimized, robbed, and killed. There is fighting for food and fuel. Whatever central authority remains lacks the resources to reimpose order. Bands of pitiful, maimed survivors scavenge among the ruins of grandeur. Grass grows in the streets. There is no higher goal than survival...Such a scenario, although clearly overdramatized, does contain many elements that are verifiable in past collapses.[3]

He draws from Casson to give two examples.[3,11] The first is the withdrawal of Roman power from Britain, the aftermath of which included the total absence of public safety and a hostile landscape of burnt, abandoned, and looted cities and dwellings. The second example is more recent, the 1918 disintegration of the Turkish government (p. 8):

The electrical supply had failed and was intermittent. Tramways did not work and abandoned trams littered the roads. There was no railway service, no street cleaning and a police force which had largely become bandit, living on blackmail from citizens in lieu of pay. Corpses lay at street corners and in side lanes, dead

horses were everywhere, with no organization to remove them. Drains did not work and water was unsafe. All this was the result of only about three weeks' abandonment by the civil authorities of their duties.[3,11]

This is all to say that the aftermath of societal collapse can reasonably be expected to be extremely threatening and deeply unpleasant, filled with discomfort, inconvenience, and pain and suffering.

We should prevent this pain and suffering, if possible. One way to prevent this pain and suffering is to prevent societal collapse. This is highly unlikely, however. To do so, we would need to be significantly better at collective action than we really are. When it comes to collective action, even collective action aimed at mitigating collective risk, we are really unsuccessful. [12–14] The disposition toward failure of collective action gets worse as interpersonal communication becomes “noisier” with incomplete or inaccurate information and groups get larger. And it takes a huge group of people (i.e., billions) relying on extremely noisy communication to act collectively to avert societal collapse.[14] Our cooperative capacities are not up to the task in front of us.¹ This collective action is required to, for examples, implement future-saving policies or elect leaders of capably doing the same.

Global catastrophic societal collapse is a near-future possibility, but a distant-future near-certainty. Local societal collapse, collapse on a smaller scale, is a near-future certainty. For the purposes of what follows, smaller scale collapse is no less relevant than the collapse of global society. The most significant difference between global societal collapse and local societal collapse is that in cases of local societal collapse the members of that society may have the opportunity to migrate to other societies. But this will become more difficult still, as other societies' resources are strained. And even when they are not strained, it is clear that not all migrants will be integrated in such a way that they escape the threats of societal collapse. Refugee camps are generally not

¹ The presence of societies may appear to some as evidence of robust collective action abilities. Whether this is true is beside the point, which is that relative to the task of preventing collapse our collective action is insufficient. Indeed, if it were true that the presence of societies guaranteed collective action abilities sufficient to prevent collapse, then the presence of society would guarantee its persistence. This is, of course, wholly inaccurate.

fully functioning societies. As I discuss in the section after next, the intergenerational disparities in suffering associated with local societal collapse are no less extreme than those associated with global societal collapse.

2. Transitional Generations

It is highly likely that the transition to societal collapse will occur over a brief period of time.[3,4,15,16] The time is likely to be brief enough such that some mature persons will be alive during the time leading up to collapse, experience the collapse, and then live the remainder of their lives post-collapse. If Tainter is correct that it occurs in a just a few decades, one might mature to adulthood in the pre-collapse world, but then find oneself in the post-collapse world before they're done with their fifties. During the pre-collapse period, however, they will have had the opportunity to become accustomed to the comforts and conveniences that society enables. They will have had the opportunity to feel relatively safe from invasion and personal harm. They will have had the opportunity to travel, establish hobbies, play games, go to concerts, movies, sporting events, and parties, and establish preferences regarding these activities. They will have had the opportunity to form preferences not only for how they want to lead their daily lives, but also those preferences that help to establish long-term life goals about how they want to live their lives and the type of person they want to be. These preferences will have had ample time pre-collapse to set in and become part of the person's perception of themselves, who they are, and who they want to be. They will have integrated into the person's agency.

Societal collapse will make impossible these comforts and conveniences. Relative to pre-collapse generations, post-collapse, people will have significantly less safety and security. They will have significantly less opportunity to travel, establish (most) hobbies, play games, or enjoy arts and sport. They will not be able to become the person they want to be. And to the extent that these preferences and their satisfaction inform who they think they are and who they want to be, societal collapse will shatter this identity. Societal collapse will frustrate many, if not most, of the preferences the transitional generation has had the opportunity to establish. This comparison is true not only of

those generations who lived in thriving societies, but also of those who lived in weakening or declining societies. In weakening or declining societies, although there may be a loss of social complexity, the loss is neither as rapid nor as extreme as that which occurs in collapsed societies.[3] Thus, even those pre-collapse people who nevertheless find themselves in weakening or declining societies will still be able to access much of the benefits associated with centralized authority and economy, coordinated behavior, and resource redistribution, even if those benefits are less than those that thriving societies engender.

Contrast the transitional generation with post-collapse generations. Post-collapse generations consist of some of those who live their lives entirely, or almost entirely, in the post-collapse world. They may be roughly contemporaneous with the transitional generation, but their co-existence occurs primarily after collapse. The post-collapse generation (and subsequent generations) will *not* have matured enough pre-collapse to be psychologically capable of forming the same sort of preferences as the transitional generation. The pre-collapse environment will not have shaped the post-collapse generations' agency and identities. Their short-term and long-term preferences will be formed primarily in the post-collapse environment, even if they are alive pre-collapse. The targets at which they aim their lives will be different. Instead of aiming to get an education, a career, a family, etc., they are likely to aim at mere survival, the satisfaction of thirst and hunger, and basic security and safety of person.

For any instance of societal collapse, whether it's global or local, there will be transitional generations. While it is true that no matter the scope societal collapse will not be so quick that one goes to sleep one night and wakes to find society collapsed, it is likely to occur on a time scale such that there are some people who spend some formative part of their life in pre-collapse society and some significant portion of their remaining life in the post-collapse world. To deny that there are or will be transitional generations, one would need to hold that all people in the post-collapse world will spend the entirety of their lives in the post-collapse world. Even if collapse is so slow and gradual that one doesn't notice it, there will still be some people who will be alive at the very end of a society. If some of these people go on living for a while afterwards, then there is a transitional generation.

One may also wish to simply deny the claim that societies will collapse, or that global societal collapse is a threat. But these claims are not tenable. Societies have collapsed and will continue to collapse. And global society, as above, will collapse someday, unless it can find a way to live independently of the earth.

3. Disparate Intergenerational Suffering

The function of the previous two sections is to establish that there will be societal collapse and when there is societal collapse there will be a generation of humans that transitions from the pre-collapse society to the post-collapse world. In this section, I claim that, compared to post-collapse generations (and pre-collapse generations, obviously), societal collapse imposes disparate and inequitable suffering upon transitional generations. The natural intuition might be that societal collapse is worse for those who only live in the post-collapse world. That it is worse to start life off in the world of burnt and looted houses and cities filled with corpses of humans and horses. But it is wrong that starting off in this state is worse than transitioning to it. It is worse to transition into those conditions, because those who do suffer more.

There are multiple accounts of suffering upon which to draw. But a pre-theoretical understanding of suffering seems to entail intergenerational disparities in suffering. Suppose that the suffering is a matter of intense and/or prolonged frustration of preferences. This is at least a plausible pre-theoretical account of suffering. If it's accurate, then the transitional generation will suffer disparately. The transitional generation and the post-collapse generation will of course both experience the same sort of baseline pain and suffering that is associated with hunger, thirst, threats to personal safety, etc. Presumably broken bones, lacerations, and other physical traumas hurt equally for everyone. But otherwise, we can expect the transitional generation to suffer more. Most, if not all, of their preferences will be frustrated, and this will cause a great deal of suffering. More basically, the transitional generation will not be able to enjoy the comforts and conveniences to which they had become accustomed.

However, the post-collapse generation will have formed preferences in a totally different environment. They will have formed their preferences and habits in an

environment impoverished of safety, comfort, leisure, and stability. This environment will fix their preferences in the same way that the pre-collapse environment is formative for the transitional generation. The stability, safety, and security of the pre-collapse environment for the transitional generation may enable the long-term preference to have children and grandchildren and have them all around the dinner table together for a holiday dinner. By the same token, the post-collapse generation's preferences will partly be a matter of the environment in which they are formed. Perhaps they will aspire to have a home, a plot of land that they can keep, children to not die, or simply the absence of constant exposure to significant risk. The difference is that these preferences are possible to satisfy, whereas the preferences of the transitional generation are not. This frustration will hurt.

But there is no need to rely on a pre-theoretical account of suffering, as on several others, the transitional generation will suffer disparately. For the sake of expediency, I adopt here Corns' recent and compelling account.[17] Corns argues that suffering is a matter of significant disruption of agency. Corns adopts conditions for agency: an agent is an individual, distinct from its environment; an agent can exercise capacities, so as to modulate the (distinct) environment; an agent can modulate their (distinct) environment in accordance with norms that concern its integrity as that (kind of) agent.[18]

Corns' claim is that agents have agentive forms, which are systems within agents that allow them to satisfy the above conditions for agency. There are many of these agentive forms and they are interdependent. But, at a minimum, humans have biological, psychological, and social agentive forms. When these are disrupted, one's ability to satisfy the conditions for agency is threatened. For example, disruption of one's biological agentive form may make it much more difficult to exercise biological capacities. Disruption of one agentive form can also disrupt another. If one gets sick with COVID-19, one's biological agentive form is disrupted, but so is one's social agentive form—she can't leave the house for a while, which she may prefer to do. Frustration of one's preferences disrupts psychological agentive forms.

Corns' account of suffering is thus that *significant* disruption of these agentive forms is suffering. A brief and minor disruption of the biological agentive form won't count as suffering, even if it is painful or unpleasant. A paper cut may be disruptive of

one's biological agentive form, even if only for a few minutes or under specific and fleeting circumstances (such as applying hand sanitizer), but it is not significant, and so one won't suffer from it. But a severed finger will be significant, at least for most people. What counts as significant will vary person to person, case by case. Corns' example is of lacking access to potable water. Lacking access for a day is minor disruption to one's agentive forms, certainly not significant enough to constitute suffering. But lacking access for a week is a significant disruption to agentive forms, and thus one suffers from it. Whether and the degree to which one suffers will depend on the degree to which their agentive forms are disrupted.

With this account in hand, it is easy to see how the transitional generation will suffer greatly and disparately. The agentive forms of the transitional generation will be fixed in the pre-collapse environment. Societal collapse will cause significant disruption of these agentive forms. Consider for example all of the social agentive forms that will have been fixed in the pre-collapse environment. Societal collapse will significantly disrupt, if not annihilate, the transitional generation's social agentive forms. Because they are interdependent, the significant disruption of social agentive forms will also significantly disrupt other agentive forms. Alternatively, societal collapse will significantly disrupt psychological agentive forms, given that much of what one wants will be impossible. The significant disruption of psychological agentive forms will have a ripple effect for other agentive forms.

My claim that the transitional generation will suffer more than other generations and, in particular, post-collapse generations, thus amounts to the claim that its members' agentive forms will be more disrupted. Post-collapse generations' social agentive forms won't be disrupted nearly as much, as these agentive forms will be fixed in their post-collapse environment. We could say the same about their psychological agentive norms. Post-collapse generations' agentive forms are safer. The agentive forms of members of the transitional generation will be much more disrupted. And in virtue of this disruption, they will suffer more. Indeed, the disruption of the transitional generation's agentive forms may be so significant that they no longer have any agency at all. That is, the disruption of the agentive forms may undermine the satisfaction of the conditions for

agency. The post-collapse generation's agency won't be so disrupted, and they won't suffer as much.

My argument doesn't depend on adopting Corns' view, though her account does help to illustrate how much more the transitional generation will suffer. Other accounts of suffering seem to also entail intergenerational disparities. Brady claims that suffering amounts to having an unpleasant experience that one doesn't want to be in (where having an unpleasant experience amounts to having a sensory experience that one doesn't want to be in).[19] On this account, the transitional generation would seem to suffer disparately, because their higher-order desires to not be in certain states will have been fixed by the pre-collapse world, whereas the post-collapse generations' members will have their higher-order desires fixed in the post-collapse world. Given that they will have been fixed in the post-collapse world, the post-collapse world is more likely to satisfy them. Desires and preferences have a world-to-mind direction of fit. For the transitional generation, the post-collapse world won't fit their pre-collapse mind. But for the post-collapse generations, the post-collapse world will more likely fit their post-collapse desires and preferences.

Other accounts of suffering deliver similar results. McClellan claims that suffering is the disruption of one's mental life, the agential struggle with the world.[20] This is similar to Corns' account. Cassell claims that suffering is when the whole person (consisting of the physical and mental life) is frustrated in achieving their aims and purpose.[21] On this account, the transitional generations' members will have pre-collapse aims and purpose, which will, for the most part, not be attainable in the post-collapse world. Such is not the case with the post-collapse generations. Kauppinen claims that suffering is "simultaneously a matter of how the world appears to us and how we are poised to act with respect to it." [22, p. 19] Specifically, suffering involves conceiving one's situation as needing change, wanting that change, and believing that one is powerless to bring it about.

All of these accounts of suffering seem to entail that the transitional generation will suffer disparately. The disparate suffering is due to the fact that the transitional generation will have formed their agency, preferences, desires, purposes and aims in one world but find themselves in another, where that agency is significantly disrupted

and their preferences, desires, purposes and aims impossible to satisfy. By contrast, the world in which post-collapse generations will have formed their own agency, preferences, desires, purposes and aims will be the very one in which they find themselves, where they can fit the world to their mind. Thus, they will suffer less from societal collapse than the transitional generation.

It is not necessary for the disparate intergenerational suffering that the transitional generation maintain their impossible-to-satisfy agency, preferences, desires, purposes and aims. They will naturally abandon these at some point in the post-collapse world. But this doesn't mean that they won't suffer disparately. Rather, it guarantees their disparate suffering, because the abandonment completes the frustration and dissatisfaction of their agency, preferences, desires, purposes and aims. And this frustration and dissatisfaction are what cause the suffering.

One might still disagree that there will be intergenerational disparities in suffering. One might think instead that members of post-collapse generations will want the very same things as members of the transitional generation. But this thought ignores the fact that people generally don't desire things that are impossible. Of course, this is not a rule, but humans usually don't go around the world wanting things that they believe impossible to achieve. Someone might wrongly think that some states of affairs are open to them, ignorant to the fact that they aren't, and desire those things. But that's not the same as wanting something one knows is impossible. It is unlikely that a person born and raised in the post-collapse world is going to develop a sense of agency or form preferences, desires, purposes, and aims that are the very same as someone born in a thriving society full of opportunity.

Indeed, post-collapse generations may not even form the desire or preference to not be in prolonged states of pain, given that such states will feature prominently in ordinary life. Being in pain won't disrupt agency as much for post-collapse generations. This isn't to say that members of post-collapse generations will feel less pain, just that they may mind it less than those in the transitional generation.

This point is relevant to a second way one might disagree that there will be disparities in intergenerational suffering. The transitional generation will, by definition, spend a significant portion of their lives in the pre-collapse world with all the comforts

and conveniences it affords. However long they happen to do so, that is less pain than any member of a post-collapse world, who will spend the entirety of their lives in brutish conditions. The member of the transitional generation has some catching up to do. But, as I note above, it's plausible that members of a post-collapse generation won't suffer as much from the physical pain, even though they may experience more of it.

Furthermore, in addition to the greater suffering from physical trauma, the transitional generation will experience greater agential suffering, trauma to their psyche. Thus, for anyone who's counting, upon collapse, the suffering of members of the transitional generation will catch up very quickly, even though they may have spent a significant portion of their lives free of pain.

I have been discussing the suffering associated with societal collapse under the presumption that the scale of collapse will be global, which is highly likely over the long term, and maybe even over the short term. But over the short term, we can be confident that there will be instances of local societal collapse. First, this is no threat to the claim that the transitional generation will suffer disparately. Second, even in the case of local societal collapse, the members of that society who transition from the pre-collapse society to the post-collapse world are likely to suffer disparately and for the same reasons. The extent to which the pre-collapse minds of the members of the transitional generation depend on the society to which they belong is the extent to which they will suffer more than the post-collapse generation.

4. Intergenerational Inequities in Suffering

Obviously, generations differ in what they have. People of the twenty-first century have the internet; people of the nineteenth century didn't. But intergenerational disparities in resources do not imply disparities in suffering. I'm claiming that societal collapse implies intergenerational disparities in suffering, not in resources. The disparate suffering of the members of the transitional generation is inequitable. It seems obvious that this disparity in suffering is unfair. The members of the transitional generation are not likely to have been the author of their own suffering. Much more likely is that pre-collapse generations acted in ways that made societal collapse

unavoidable, and that the transitional generation happened to bear the extra burden of suffering. Those accounts of distributive justice that ground fairness in desert will fail to overturn the claim that the intergenerational disparity in suffering is inequitable.[23] Egalitarian accounts will likewise endorse the idea that the disparities are inequitable.[24,25] The transitional generation's greater suffering is simply a matter of luck.

Similarly, accounts of fairness that permit disparities, so long as they are to everyone's advantage, such as Rawls' are also compatible with the claim that the intergenerational disparities are inequitable.[26] The disparities are to no one's advantage; no one would choose these inequalities from behind the veil of ignorance. That the transitional generation suffers disparately may not minimize welfare, but it certainly doesn't maximize it. So, accounts of distributive justice that prioritize welfare are perfectly compatible with the idea that the transitional generation's disparate suffering is inequitable.[27] And, if one prefers a more libertarian account of distributive justice, the transitional generation's disparate suffering secures no greater liberty.[28] Rather, given that the disparate suffering is a direct result of societal collapse, and there is a net loss of liberty in societal collapse (i.e., the loss of the ability to *use* liberties), the intergenerational disparity associated with societal collapse is associated with the *loss* of liberty.

The idea that the intergenerational disparity in suffering is inequitable is, on the face of it, compatible with any account of distributive justice. One may still wish to recognize the disparity but deny that it's unfair. I'm not arguing in detail here that this position is conclusively wrong. But the person wishing to establish this position has some work to do—they must show that the significant disparity is, by their own principles, fair. There is no clear path for such a claim, but some may wish to pursue it.

The fact that the disparity is inequitable warrants remediation. Generally, the fact that a given distribution of burdens is unfair provides a reason to make that distribution fairer, unless there are countervailing reasons to not do so. That a given distribution is unfair provides a *pro tanto* reason to do something about it. Even if there are countervailing reasons, the fact of unfairness doesn't stop providing a reason to make

the distribution fairer; it's just that that there may be weightier reasons that count against fairness.

Countervailing reasons commonly outweigh the reasons to remediate inequitable distribution of burdens, benefits, and opportunities. For example, monetary reparations for slavery in America may help to repair some current racial inequities, but may also, on some accounts of distributive justice, undermine other principles of justice, such as those that entail strong protections of individual wealth.² Or, similarly, great disparities in wealth may be unfair, but remediating those disparities may only be possible if more fundamental values are sacrificed (e.g., property rights).

In the case of the inequitable intergenerational disparity in suffering, there are no obvious countervailing reasons to remediating the inequity. Short of preventing the inequity in the first place—preventing societal collapse—allowing the inequity doesn't appear to secure any other value. Allowing the intergenerational disparity in suffering doesn't obviously secure greater welfare or liberty for anyone. The transitional generation is certainly worse off for it. And the post-collapse generations gain nothing from the comparatively greater suffering of the transitional generation.

Additionally, inequitable disparities in suffering often trigger social and political action in pursuit of remediating those disparities. For examples, social and political activism pursuing the remediation of racial and ethnic disparities in health care access and outcomes has triggered significant institutional changes, not only in public policy but in the policies of private institutions. Inequitable disparities in wealth have also triggered social and political action. Disparities in suffering at the hands of law enforcement and the criminal justice system have spurred widespread and fervent social and political activism. These examples don't directly provide reasons to remediate the inequitable disparity in intergenerational suffering from societal collapse. But parity of reasoning suggests that if pursuing the remediation of these other social injustices is justified, then so is pursuing the remediation of intergenerational disparities.

So, there are no obvious reasons that count against remediating the inequitable disparities in intergenerational suffering from societal collapse. And parity of reasoning suggests that if other, well known, and sometimes effective, attempts at remediating the

² To be clear, I am not claiming that reparations are, or are not, morally or pragmatically justified.

inequitable burden of suffering between other social groups are justified, then so is attempting to remediate the inequitable intergenerational suffering. This justification is of course defeasible. But to defeat it one must show (a) that the inequity secures something of greater value; (b) that remediating the intergenerational inequities is relevantly different from other inequities between social groups, or (c) that remediating other inequities between social groups (e.g., racial inequities in the criminal justice system) is not justified.

5. Remediation of Intergenerational Inequities

Attempting to remediate the disparate intergenerational suffering is justified. In the case of other attempts at remediating inequities between social groups, these attempts often take the form of advocacy for policy changes. The advocacy aims at changing the worldly conditions such that they no longer entail those inequities. That is, advocates don't typically direct their efforts to intervening on the social groups suffering from the inequities. Instead, the proposed interventions are upon the world, such that the world no longer entails that inequity. This is a significant difference between remediating the inequitable suffering that results from societal collapse and the inequities that, for example, systemic racism, entails. The inequitable intergenerational suffering that results from societal collapse arises because of the mismatch between the world and the minds of the members of the transitional generation. But advocating for policy changes in a post-collapse world is not possible, since there is not likely to be any significant presence of public policy.

The problem for the transitional generation is that the post-collapse world won't fit the pre-collapse mind and that there's no changing the world so that it will fit. The transitional generation is powerless to change the world so that they can satisfy their agency, desires, preferences, aims, and purposes. So, unlike other attempts at remediating social injustice, it will do no good to attempt to change the post-collapse world such that it fits the pre-collapse mind.

While some might disagree that *ought implies can*, it is at least plausible that such a principle holds true.[29]³ If so, and it's impossible to change the post-collapse world such that it fits the pre-collapse mind, then one might wonder whether there is any moral justification to attempt to remediate the intergenerational injustice. If it's not possible to do anything about it, then it's false that any group or individual ought to attempt to do so.

Just because it's not possible to change the world such that it fits the minds of the members of the transitional generation and relieves the inequitable suffering, it doesn't follow that remediating the inequity is impossible. Whether minds and worlds fit together is a matter of both how the world is arranged as well as how the mind is arranged. It may be impossible to re-arrange the world so that they fit. But it *may* be possible to re-arrange the mind so that they fit. Indeed, the only way to remediate the inequitable burden of suffering is by intervening on the minds of the members of the transitional generation. If it's impossible to do so, then the moral justification for attempting to remediate the injustice evaporates and the transitional generation will just have to live with it.

However, it may be possible to intervene upon the minds of the transitional generation, such that societal collapse doesn't disrupt their agency, desires, preferences, aims, and purposes. In short, their agency, desires, preferences, aims, and purposes would need to be modified in some way.

One way of modifying a person's agency, desires, preferences, aims, and purposes is simply by socialization and education, which we already do all the time. A person's agency, desires, preferences, aims, and purposes change all the time. Often these are the result of education and experience. Thus, it may be possible to change the transitional generation's agency, desires, preferences, aims, and purposes by education and exposure, by targeting those states likely to be frustrated in the post-collapse world. For example, acquiring food in the post-collapse world is less likely to be a matter of going to the grocery store and using money from one's job to buy a frozen pizza, and

³ There are multiple plausible formulations of the principle. Which of these, if any, are true is irrelevant to the present point, which is that the justification for remediating intergenerational inequities in suffering may not be possible.

more a matter of finding or cultivate edible plants and animals. Changing one's biological agentive form such that they are able to so cultivate is a way of changing their mind so that it better fits with the post-collapse world.

Socialization and education may help in fitting the transitional generation's mind to the post-collapse. But it may also be reasonable to consider biomedical interventions, such as those that enhance certain abilities or diminish certain sensitivities.

6. Conclusion

My argument relies on several purported facts pertaining to societal collapse. Some may dispute the argument by disputing these empirical claims. For my argument, societal collapse must be inevitable and it must occur rapidly enough that there are some people who live much of their lives in both pre-collapse society and the post-collapse world. The first of these claims is not credibly open to dispute. No human institution goes on forever. Society will end one day. Relative to the entire history of the universe, and even relative to the several hundred thousand years humans have been around, it will probably happen soon. Claiming that human society is infinite is not a winning strategy.

One might instead insist that societal collapse is not bad. This seems implausible, however. Human society enables the achievement of significant value. When that enabling mechanism disappears, that value is unachievable; it is lost. The loss of value is bad. But more than that, societal collapse also promotes some disvalue, such as the pain that indirectly results from the lack of security. So, it is not plausible that societal collapse is or will not be bad, relative to the value the society promotes. It may not be the worst thing, though. And it may not be extremely bad. For my argument, I just need it to be bad enough that the transitional generation's agency, aims, desires, preferences, purposes, are significantly disrupted.

Finally, one might claim that societal collapse is so slow that transitional generations never arise. This claim incompatible with the empirical evidence.[3,4] But it also seems implausible: the transitional generation is just the group of people who straddle both the pre-collapse society and the post-collapse world. They are the people who are still

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hanging around after collapse. If they formed their agency, aims, purposes, desires, preferences in the pre-collapse world, then they will suffer disparately. Thus, this objection amounts to the claim that no one who lives in the post-collapse world will have formed these states in the pre-collapse society. If we care about reducing disparate suffering, this may be what we should hope for.

Funding and/or Conflicts of interests/Competing interests

Declarations: This work was not funded. The author has no competing interests.

References

1. Herrington G. Update to limits to growth: Comparing the World3 model with empirical data. *Journal of Industrial Ecology* [Internet]. John Wiley & Sons, Ltd; 2021;25:614–26. Available from: <https://doi.org/10.1111/jiec.13084>
2. Lawler A. Collapse? What collapse? Societal change revisited. *Science* (1979). 2010. p. 907–9.
3. Tainter J. *The Collapse of Complex Societies* [Internet]. Cambridge University Press; 1988. Available from: <https://books.google.com/books?id=M4H-02d9oE0C>
4. Renfrew C. Systems Collapse as Social Transformation: Catastrophe and Anastrophe in Early State Societies. In: Renfrew C, Cooke KL, editors. *Transformations : mathematical approaches to culture change*. Academic Press; 1979. p. 481–505.
5. Diamond JM. *Collapse: How Societies Choose to Fail Or Succeed* [Internet]. Viking; 2005. Available from: <https://books.google.com/books?id=QyzHKSCYSmsC>
6. Middleton GD. *Understanding Collapse* [Internet]. Cambridge University Press; 2017. Available from: <https://books.google.com/books?id=u5okDwAAQBAJ>
7. Schwartz GM. From collapse to regeneration. *After collapse: The regeneration of complex societies*. University of Arizona Press Tucson; 2006;3–17.
8. Downey SS, Haas WR, Shennan SJ. European Neolithic societies showed early warning signals of population collapse. *Proceedings of the National Academy of Sciences* [Internet]. 2016;113:9751. Available from: <http://www.pnas.org/content/113/35/9751.abstract>
9. Scheffer M. Anticipating societal collapse; Hints from the Stone Age. *Proceedings of the National Academy of Sciences* [Internet]. 2016;113:10733. Available from: <http://www.pnas.org/content/113/39/10733.abstract>
10. Tainter JA. Social complexity and sustainability. *Ecological Complexity*. Elsevier; 2006. p. 91–103.
11. Casson S. *Progress and Catastrophe: an Anatomy of Human Adventure*. New York and London: Harper and Brothers; 1937.

12. Milinski M, Semmann D, Krambeck H-J, Marotzke J. Stabilizing the Earth's climate is not a losing game: Supporting evidence from public goods experiments. *Proceedings of the National Academy of Sciences* [Internet]. 2006;103:3994–8. Available from: <http://www.pnas.org/cgi/doi/10.1073/pnas.0504902103>
13. Reed FA, Marotzke J, Milinski M, Sommerfeld RD. The collective-risk social dilemma and the prevention of simulated dangerous climate change. 2008;105.
14. Bowles S, Gintis H. *A Cooperative Species: Human Reciprocity and Its Evolution* [Internet]. Princeton University Press; 2011. Available from: <https://books.google.com/books?id=dezaI9XMp0UC>
15. Richards CE, Lupton RC, Allwood JM. Re-framing the threat of global warming: an empirical causal loop diagram of climate change, food insecurity and societal collapse. *Climatic Change* [Internet]. 2021;164:49. Available from: <https://doi.org/10.1007/s10584-021-02957-w>
16. DiNapoli RJ, Rieth TM, Lipo CP, Hunt TL. A model-based approach to the tempo of “collapse”: The case of Rapa Nui (Easter Island). *Journal of Archaeological Science* [Internet]. 2020;116:105094. Available from: <https://www.sciencedirect.com/science/article/pii/S0305440320300182>
17. Corns J. Suffering as significantly disrupted agency. *Philosophy and Phenomenological Research* [Internet]. 2021; Available from: <https://onlinelibrary.wiley.com/doi/10.1111/phpr.12841>
18. Barandiaran XE, di Paolo E, Rohde M. *Defining agency: Individuality, normativity, asymmetry, and spatio-temporality in action*. Adaptive Behavior. Sage Publications Sage UK: London, England; 2009;17:367–86.
19. Brady MS. *Suffering and virtue*. Oxford University Press; 2018.
20. McClelland T. The disruption model of suffering. *Philosophy of Suffering*. Routledge; 2019. p. 37–54.
21. Cassell EJ. Recognizing suffering. *Hastings Center Report*. Wiley Online Library; 1991;21:24.
22. Kauppinen A. The world according to suffering. *Philosophy of suffering*. Routledge; 2019. p. 19–36.
23. Lamont J. The concept of desert in distributive justice. *The Philosophical Quarterly* (1950-). JSTOR; 1994;44:45–64.
24. Dworkin R. What is equality? Part 2: Equality of resources. *Philos Public Aff*. JSTOR; 1981;283–345.
25. Dworkin R. What is equality? Part 1: Equality of welfare. *Philos Public Aff*. JSTOR; 1981;185–246.
26. Rawls J. *A theory of justice: Revised edition*. Harvard university press; 1999.
27. Goodin RE. *Utilitarianism as a public philosophy*. Cambridge University Press; 1995.
28. Nozick R. *Anarchy, State, and Utopia* [Internet]. Basic Books; 2013. Available from: <https://books.google.com/books?id=fVITAAAAQBAJ>
29. Scheall S, Crutchfield P. *The Priority of the Epistemic*. Episteme. Cambridge University Press; 2020;1–12.
[Internet]. John Wiley & Sons, Ltd; 2021;n/a. Available from: <https://doi.org/10.1111/bioe.12926>

Penultimate Draft, please cite final draft forthcoming in *Neuroethics*

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