



The Cult Deficit: Analysis and Speculation

Roger's Bacon¹

Using a dataset derived from the long-running “Cults” podcast by Parcast, I find that the number of new cults began to increase in the 50s, peaked in the 70s-80s, and has been in steady decline in recent decades. I discuss various factors (historical, technological, cultural, pharmacological) that may have played a role in the rise and fall of cults since the 1950s and speculate on what the future may hold.

Introduction

It feels like cults used to be much more common. Ross Douthat notes this trend in his 2014 New York Times article [“The Cult Deficit”](#) and discusses two thinkers who have suggested that this lack of cults is, contrary to popular opinion, a bad sign for society.

“Philip Jenkins, a prolific religious historian, who argues that the decline in “the number and scale of controversial fringe sects” is both “genuine and epochal,” and something that should worry more mainstream religious believers rather than comfort them. A wild fringe, he suggests, is often a sign of a healthy, vital center, and a religious culture that lacks for charismatic weirdos may lack “a solid core of spiritual activism and inquiry” as well.”

“Peter Thiel’s argument is broader: Not only religious vitality but the entirety of human innovation, he argues, depends on the belief that there are major secrets left to be uncovered, insights that existing institutions have failed to unlock (or perhaps forgotten), better ways of living that a small group might successfully embrace.

This means that every transformative business enterprise, every radical political movement, every truly innovative project contains some cultish elements and impulses — and the decline of those impulses may be a sign that the innovative spirit itself is on the wane. When “people were more open to the idea that not all knowledge was widely known,” Thiel writes, there was more interest in groups that claimed access to some secret knowledge, or offered some revolutionary vision. But today, many fewer Americans “take unorthodox ideas seriously,” and while this has clear upsides — “fewer crazy cults” — it may also be a sign that “we have given up our sense of wonder at secrets left to be discovered.”

¹ Writing at [Secretum Secretorum](#)



Both Thiel and Jenkins take it as self-evident that cults are in decline, but to my knowledge there has been no quantitative analysis of cult formation of the scope that would allow for the assessment of broad trends over time.² This article provides such an analysis using a dataset derived from the podcast [“Cults” by Parcast](#) (the dataset is available [here](#)). I find that cults have been declining in the United States and across the world since the 70s-80s and speculate on reasons for this “cult deficit” and what the future of cults might look like.

Methods

What is the difference between a cult, a sect, and a religion? There is considerable scholarly debate over this question and no clear consensus has emerged.³ Further complicating these definitional issues is the bewildering diversity of groups that can be considered as cults – doomsday cults, political/racial/terrorist cults, Christian cults, eastern religion cults, alien cults, new age cults, family cults, psychotherapy/human potential cults, commercial cults, and more. Given all these challenges, I elect to use the Justice Potter Stewart strategy – [“I know it when I see it”](#). Thus, I am using the pejorative and colloquial sense of the term, which I believe is also the sense in which Thiel and Jenkins use it in their arguments.

Any episodic media that discusses cults will presumably be using this colloquial sense of this term because this is what their audience will have in mind. The podcast “Cults” by Parcast is one such piece of media – released weekly, each ~45-minute episode explores the history and psychology of a particular cult. My dataset consists of all the cults that have been covered by this podcast for which I could find clear beginning dates, a total of 99 cults (6 cults were removed due to lack of data; data available upon request).⁴ Given the secretive nature of cults and the unclear boundary between eccentric religious groups and full-blown cult, occasional judgments had to be made about when exactly the cult was formed. For example, sometimes a relatively conventional group only became a cult when a new leader took power, when a leader dramatically changed his teachings, or when the group moved to a new location; in these cases (a significant minority of the total), I strove to use the date at which cult-like dynamics began and not the official formation of the group.⁵ The problems of defining when a cult ended were much more problematic – in some cases, a clear event marked the end (a murder, suicide, or arrest), but in others it was debatable when the cult actually ended; for example some cults greatly reduced in size and changed their beliefs upon the death of a charismatic leader – should I consider the cult as still

² See [Stark et al. \(1979\)](#) and [Stark and Bainbridge \(1981\)](#) for analyses of a more limited scope.

³ See the brief discussion on the wikipedia page for [“Cult”](#) to get a sense of the definitional issues.

⁴ The only cult that was added to the dataset which was not featured in the podcast is Scientology. I felt it necessary to add Scientology because it is one of the largest and most well-known cults and was probably not featured in the podcast to avoid legal complications.

⁵ There were a few cults where I could only find a start/end date of early, mid, or late decade; for those, I imputed numbers in the following manner (using 70s as an example): early - 1971, mid - 1975, late - 1979).



existing or ending when the leader died? Because of these problems, analyses regarding the dissolution of cults were not reliable and thus were not included. Finally, I also scored the location of cults by country and by state if the cult was located in the United States; some of the same issues discussed above applied here as well (a group was founded in one place but only attracted followers and became cult-like when it moved to new location) – again, I strove to use the location where cult-like dynamics took over for the first time, however there were a few cases where I deemed it appropriate to consider two locations for the cult. All in all, I do not consider any of these issues to be that problematic given the general nature of the question being investigated (are cults declining over time?).

Results

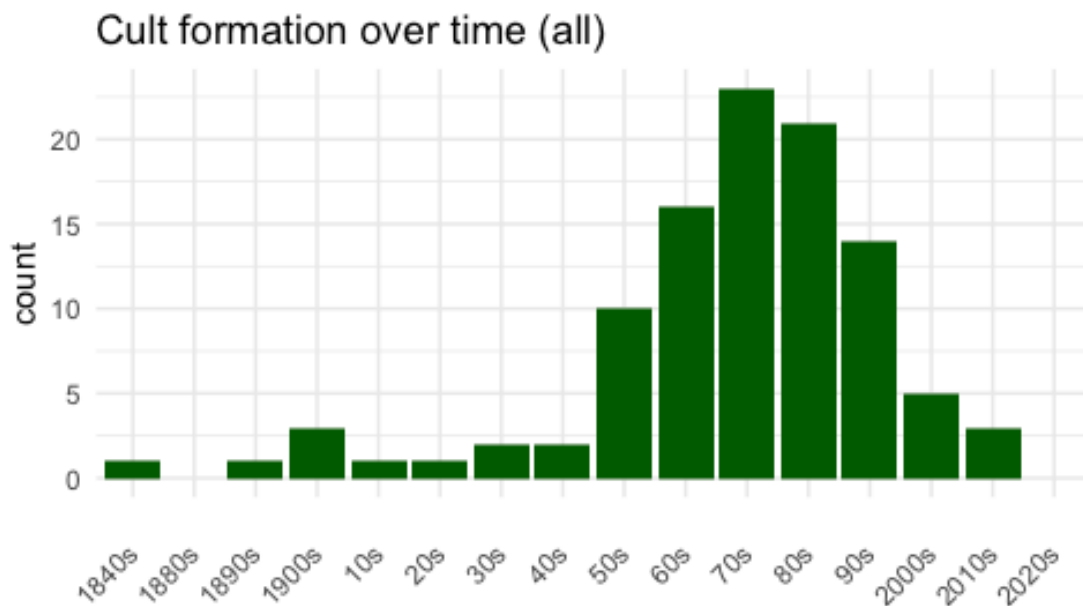


Figure 1 - Cult formation by decade (all countries)

A clear pattern emerges from the data: **the number of new cults began to increase in the 50s, peaked in the 70s/80s, and has been in steady decline in recent decades.** Given the quality and size of the dataset, I don't feel that it is appropriate to analyze cult formation at a more granular chronological level or discuss any of the ancillary results like geographical distribution (but see Supplementary Information for cult counts by country and state).

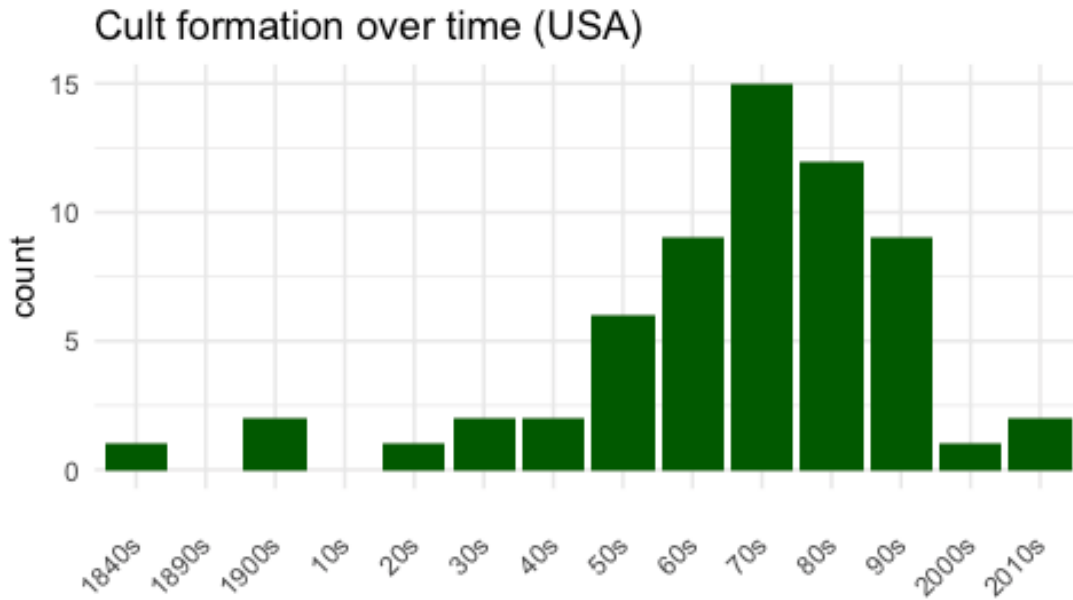


Figure 2 - Cult formation in the United States by decade

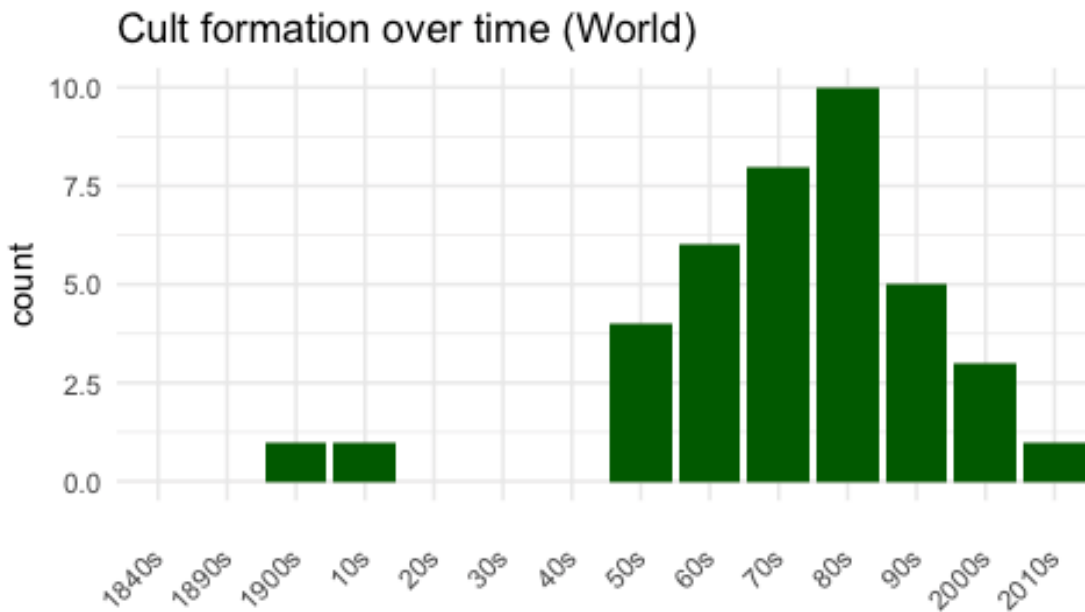


Figure 3 - Cult formation in non-US countries by decade

This dataset represents a subset of all total cults and therefore it is likely reasonable to consider if there is some bias in the sample that complicates the interpretation. Given that this list of cults comes from a podcast that is presumably trying to attract an audience, it is likely that our sample is biased towards cults that are more well known. This isn't necessarily problematic, and in fact may be a strength of the analysis – to the



degree that our dataset is filtered for fame/notoriety we are then answering the question – are cults of a certain size and significance declining over time? Another issue is that dataset may be biased towards the United States – the podcast is created by an American company and is presumably targeted towards American listeners, therefore it is likely that the list of cults is biased towards American cults and any geographical conclusions should be made with caution.

There also may be selection effects affecting the inclusion of recently formed cults and cults in the distant past. More recently formed cults may have not had time to attract a significant amount of followers or public attention. For example, a cult formed in 2018 may not be well known (and thus not selected for the podcast), but will be widely known in 2025 after a mass suicide event a la Heaven's Gate. A quick internet search yields two examples of more recently formed cults that were not included in the dataset ("[Love has Won](#)", formed in 2006, and "[The New Light of God](#)" in Panama, formed some time in the 2010s).⁶ On the other hand, cults from the distant past may have faded in notoriety or may not be ideal for a podcast because of a lack of reliable sources. We could also posit a saturation effect in that lesser known cults from eras with a particularly high numbers of cults are more likely to be forgotten and thus cults from these eras are undercounted. It is also possible that the creators of the show have purposefully tried to avoid over-clustering of the time periods that they cover. It is difficult to know which of these effects is the strongest, but I think it is most likely that they are relatively insignificant and largely cancel each other out.

Given all of these limitations (and others discussed by the gardeners in the comments below), this analysis can only be regarded as a preliminary first step (a "seed of science") towards a greater understanding of cult dynamics across time and space. In the spirit of stimulating future research (i.e. the spirit of this journal), the remainder of the paper provides speculation on what factors may have played a role in the rise and fall of cults since the 1950s and how these factors may influence cult formation and dissolution in the future.

History and Technology

What explains the pattern of cult formation seen in our results? Numerous factors may have created a unique spiritual milieu in the post WWII-era (50s-70s) that was ripe for new belief systems. We might speculate that the psychological fallout of WWII, the Vietnam War, and the Cold war, along with rising secularization led to an unprecedented number of people that were open to joining cult-like groups. The rise in cults also coincides with two epochal events – the creation and use of the atom bomb and the space race; these events may have contributed to a particular metaphysical zeitgeist that was favorable to cult formation. One obvious way in which this manifested itself

⁶ Another present-day cult that came to light in May, 2022: "For years, deep in the woods of Thailand's Chaiyaphum province, cult leader Thawee Nanra promised his followers that consuming his skin and bodily fluids could cure all ills. Now, police have arrested the 75-year-old after 11 of his followers' bodies were discovered at his remote compound."



was the formation of UFO religions/cults, and in fact we do see that virtually all UFO religions/cults are formed from the 50s onwards (notably Scientology in 1953 and Heaven's Gate in 1974). This may explain some of the increase in cults, however UFO cults are a minor percentage of all cults and other categories of cults (e.g. Christian cults) also seem to follow the same general trend. Another trend worth noting in this regard is the rise of syncretic religions/cults in the post WWII-era (the Moonies, Rajneesh, Nuwubian Nation, amongst others). Increased east/west cultural exchange during this time period may have provided a new influx of spiritual ideas that contributed in some part to the increase in cult formation.

What then explains the significant decrease in cult formation in recent decades? The internet has changed cultural/social dynamics in countless ways and many of them may be relevant for cult formation, but perhaps the most important factor is the dramatically increased availability of information and ease of finding and contacting people. Cults in the past benefited from recruiting people who had no previous knowledge of a group's activities and could not easily fact check some of the more outrageous claims. Additionally, cults often sought to cut off contact between its members and their family and friends as these would be the people most able to convince a member to leave the cult. Clearly the internet has made it much more difficult for any would-be cult to isolate its members from outside information and communication (but see Phil Wilson's comment below for an opposing viewpoint on the role of the internet).

The internet and other digital technologies may have brought about a fundamental change in the nature of cult-like groups. "Totalitarian" cults that separate from society and seek complete behavioral control may be a thing of the past; in their place are internet-based conspiracy cults which may not include much formal organization. These internet cults do not rely on informational isolation and do not seek micro-level individual behavioral control, rather they rely on misinformation and seek to motivate higher-level individual behaviors (media consumption, voting, consumer behavior) and collective behavior (protests, rioting, terrorist attacks). Though they are not typically regarded as cults per se, [QAnon](#) and [Info Wars](#) (both not included in the dataset) have been noted for their cult-like dynamics and it is perhaps best to conceive of them as examples of this new category of internet-based cult (also see the [Virtual Reptilian Cult – Sherry Shiner](#)). Additionally, the internet has also allowed for updated versions of the classic cult of personality as charismatic personalities can now attract followers without significant in-person interaction (see [Spiritual Catalyst](#), and [Lord RayEl](#)). One way to conceive of the rise of Donald Trump and his cult-like following may be as a blend of both these categories – a digitally-weaponized cult of personality that traffics in misinformation and seeks to motivate voting and financial decisions.

Tight vs. Loose Cultures

Cultures vary in their tolerance of norm deviations, a characteristic known as [cultural tightness](#). The West saw a dramatic shift towards "looseness" with the countercultural revolution in the 1960s and 1970s. We can speculate that this may have been a



contributing factor to the explosion of cults – looser societies may provide more fertile ground for cults because of their greater tolerance for deviant beliefs and behaviors; a cursory glance at the geographic variation in our data supports the idea that looser states/countries have more cults – California, noted epicenter of the countercultural revolution, has far and away the highest concentration of cults in the world, and the vast majority of cults in our dataset come from western cultures, which tend to be generally looser than eastern cultures (however see the discussion on the geographic distribution of cults in the dataset in the methods section).

It is also interesting to note in this context that most of Trump's base comes from regions with tighter, more collectivist cultures ([the American south and midwest](#)) that have also been shown to have [fewer cults](#) (Stark et al., 1979; also consistent with our data). The rapid rise of Trump and the almost religious-like fervor he inspires could be taken as evidence for a hypothesis raised by a recent simulation study by [Muthukrishna and Schaller \(2020\)](#) that suggests tighter and more collectivist cultures are prone to rapid transformations that “may proceed at a pace that more closely fits the subjective perception of a “revolution”. Chinese history provides an instructive example on this point (see this [blog post](#) by Dr. Muthukrishna for further discussion). Being that China represents one of the end of the spectrum when it comes to the tight and collectivist vs. loose and individualistic spectrum, we may expect a history of rapid transformation; in this regard, we can point to the Cultural Revolution and the Boxer Rebellion as examples of such transformations (of course one could also say that these revolutions were brought about by specific historical circumstances and events that were not really related to cultural tightness). Taken together, this may suggest that societies that are less tolerant of deviant behavior may have a lower rate of cult formation, but may be more susceptible to mass revolutions in which cult-like dynamics take over.

Psychedelics

“Aldous Huxley makes the same point in speaking of the effects of mescaline in [The Doors of Perception](#): that in a world in which everyone took psychedelics there would be no wars, but no civilization either.”

- Colin Wilson, *The Occult*

The explosion of psychedelic usage in the 60s and 70s may have also been a significant factor in the increase in cult formation and participation during that time period. Psychedelics, particularly LSD, played a major role in some of the more notorious cults (the Manson family, [Aum Shinrikyo](#) - if you don't know about this one, take a second to read about how batshit crazy this cult was), but it also may have contributed more broadly to a cultural (and chemical) zeitgeist that was prone to cult-like dynamics.

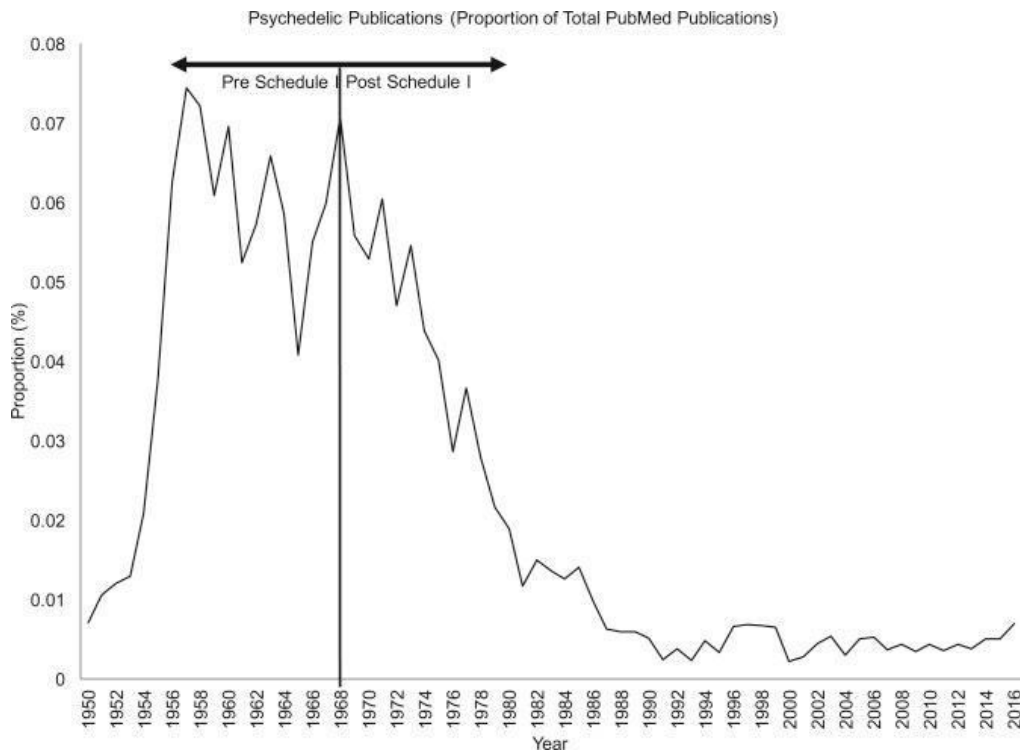


Figure 4 - [“Psychiatry & the psychedelic drugs. Past, present & future”](#) (Rucker et al., 2018)

The amount of academic publications on psychedelics should serve as a reasonable proxy for psychedelic usage in the general population. It is interesting to note that the trend in scientific interest in psychedelics mirrors that of cult formation but peaks 5-10 years earlier, which might make sense given the lasting psychological changes that can arise from psychedelics and a faster fade out of academic interest compared to public interest after the change in legality in 1968.

Why might psychedelics contribute to a rise in the appearance of cults? Recent research has developed a model in which psychedelics lead to a global relaxation of beliefs (i. e. “Bayesian priors” - see [“REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics”](#), Carhart-Harris and Friston, 2019; also see Scott Alexander’s [excellent summary](#)). In this model, sensory hallucinations arise from a relaxation of high-level priors like “walls don’t move” and “most objects don’t randomly change colors”, however this relaxation also applies to beliefs like “I’m a failure” or “the world is high dangerous”; relaxation of these beliefs may be responsible for the therapeutic beliefs of psychedelics for depression and PTSD that are now being heavily investigated. We can imagine that the relaxation of beliefs like “aliens are not real” or “random people don’t have the secrets of the universe” could lead to increased formation and participation in cults. In a section entitled “What to Do About the Woo?” the authors of the REBUS paper propose an alternative reason why psychedelics may dramatically modify beliefs, “psychedelics have an interesting history of association with pseudoscience and supernatural belief. One interpretation of this is that a strong



psychedelic experience can cause such an ontological shock that the experiencer feels compelled to reach for some kind of explanation, however tenuous or fantastical, to close an epistemic gap that the experience has opened up for them.” In this model, cult leaders use psychedelics to create ontological shock and an accompanying epistemic gap which they then seek to fill with their own doctrines.

The authors also discuss the nature of the society-level effects arising from widespread psychedelic usage in two more speculative passages.

“Two figureheads in psychedelic research and therapy, Stanislav Grof and Roland Griffiths, have highlighted how psychedelics have historically “loosed the Dionysian element” (Pollan, 2018) to the discomfort of the ruling elite, i.e., not just in 1960s America but also centuries earlier when conquistadors suppressed the use of psychedelic plants by indigenous people of the same continent. Former Harvard psychology professor, turned psychedelic evangelist, Timothy Leary, cajoled that LSD could stand for “Let the State Dissolve”.

They close the article with this quote from Michael Pollan’s 2018 book *How to Change Your Mind*.

“Whether by their very nature or the way that first generation of researchers happened to construct the experience, psychedelics introduced something deeply subversive to the West that the various establishments had little choice but to repulse. LSD truly was an acid, dissolving almost everything with which it came into contact, beginning with the hierarchies of the mind... and going on from there to society’s various structures of authority and then to lines of every imaginable kind... If all such lines are manifestations of the Apollonian strain in Western civilisation, the impulse that erects distinctions, dualities, and hierarchies, and defends them, then psychedelics represented the ungovernable Dionysian force that blithely washes all those lines away... But surely [it] is not the case that the forces unleashed by these chemicals are necessarily ungovernable”.

Maybe we can think of the ambient level of psychedelic usage as a modifier of the “hierarchality” of a society; societies with less hierarchality (what a mouthful) may be more prone to the development of fringe cult-like groups and more likely to tolerate their existence.

The Future of Cults

There may be a few factors that could return us in the coming decades to something like the spiritual milieu that provided such fertile ground for cults in the 70s and 80s. First, we may wonder at the psychological, cultural, and political fallout from the COVID-19 pandemic and how this may affect the nature of religious belief in the 20s and beyond. The rise of AI may play a role similar to that of the atom bomb and the moon landing – it would not be entirely surprising to see the formation of various



“techno-cults” based on AI and other advanced technologies (e.g. a cult-like group that centers around some particularly powerful cognitive or physical modification). Some would say there are already a few techno-cults in their incipient stages – proponents of the technological singularity have been accused of cultishness and it is reasonable to think that ever-more powerful AI will only inspire more cult-like devotion to this idea ([apparently a “Church of AI” was founded in 2015 but has already shut down](#)). There is a tongue-in-cheek Mac community website called [Cult of Mac](#) – would it be shocking if 30-50 years from now there in fact was a real cult of mac (and a cult of PC)? We are also in the midst of a [psychedelic renaissance](#) and it is worth wondering if this will also contribute to a cult renaissance. This would lead to the prediction that states/countries that decriminalize or legalize psychedelics may see a spike in cult formation. Oregon was the first state to decriminalize Psilocybin in 2020, and it seems that California and Colorado will also do so in the coming years (Denver, Oakland, and Cambridge (Massachusetts) have decriminalized Psilocybin since 2019). California in particular will be a region to watch for new cults - our data clearly support the popular notion that California is the cult capital of the world, however only two cults have formed in California since 1990.

As discussed above, the changes in the informational landscape brought about by computers and the internet has affected the nature and dynamics of cult-like groups. It is fair to wonder how these changes will affect a potential resurgence in the “cultishness” of society. In the 70s and 80s, there were numerous cults, however essentially all of them were very small fringe groups (Scientology, perhaps the largest cult-like group, peaked at around 100,000 members in the 90s, but is now down to around 20,000). It is possible that in the coming decades we will see a very different cult ecosystem, one in which there continues to be a smaller number of fringe groups or even fewer than the present, but each of them attains a much larger membership (into the millions) and amount of cultural influence. QAnon may provide an example of what we may see more of in the future – loosely organized cult-like groups with no formal membership that attain millions of believers.

Conclusion

Although this analysis supports the intuition that cults have been declining in recent years, it says nothing about the argument that a lack of cults indicates a lack of cultural creativity and experimentation. Personally, I think there may be some merit to this argument. In this view, there is a tradeoff – more cultural creativity means more of the negative outcomes typically associated with cults. Is this tradeoff inevitable or is there a way we can have our cake and eat it too? It strikes me that in many ways cults represent a “photo negative” of scientific communities. In cults, the Absolute Truth is dictated by the leader; the Absolute Truth never changes (unless the leader changes it) and skepticism and creativity are strongly discouraged (to put it mildly for many cults). In science, the truth is always and forever subject to revision and skepticism and creativity are strongly encouraged.



This may point to science education as being a crucial lever that we can pull to disentangle the negatives and positive consequences of a more cultish society. Perhaps there are new forms of science education that, if properly implemented, could provide students with greater psychological defenses against cults and allow us to channel cultish tendencies towards more productive ends. As it currently stands, there is virtually no discussion in high schools of cults or more scientific perspectives on religion; teaching students about the science of religion from evolutionary, psychological, and sociological perspectives may be a good place to start for an anti-cult education.

Gardener Comments

Phil Wilson:

Overall, this is an interesting contribution which shows some reasonable evidence that cult formation rates have steeply declined, and speculates about possible causes for the decline. The paper is broadly well-written, with few typos and clear exposition. Efforts are made to get definitions clear and to address limitations and biases in the data and methodology. There follows a few specific comments addressed to the author, either for them to enact or for the interested reader to consider.

1. In the first paragraph of the Methods section, you decide to use "the pejorative and colloquial sense of the term" 'cult'. But a limitation with this approach is that one can bend and flex the definition to help you cherry pick the data which confirms your hypothesis. Another approach would be to find an established definition which is compatible with your data set.
2. In the second paragraph of the Methods section, you assume that any episodic media will also use only the colloquial sense of "cult". Is this true? Do the hosts of the podcast in question never say how they define it?
3. In the second paragraph of the History and Technology section, you speculate that one cause for the rapid decline in cult formation is the adoption of the internet. While this sounds plausible, the decline is already seen in your data in the 1980s, well before wide-spread adoption of the internet. Indeed, the trend continued in the 1990s, yet according to <https://www.internetworldstats.com/emarketing.htm> only 4.1% of the world's population was online by the end of that decade.
4. On p.7, *why* should "[t]he amount of academic publications on psychedelics ... serve as a reasonable proxy for psychedelic usage in the general population"?
5. Also on p.7, I note that you only "note that" the trend in scientific interest in psychedelics mirrors that of cult formation, yet that language is highly suggestive and indicates that you wish to imply a connection. This is a very weak link, and even if you could establish a correlation it would be far from establishing a causal connection.

**William Collen:**

Very thought-provoking premise, and I think this piece will generate some lively discussion upon publication. My only critique is that the author seems to rush over potential problems with the dataset. Statements like "it is likely that our sample is biased towards cults that are more well known" and "dataset may be biased towards the United States" are, apparently, much more concerning to me than to the paper's author. Also, "analyses regarding the dissolution of cults were not reliable and thus were not included" seems to be a very important point affecting the author's fundamental premise. If the rate of new cults' being started has slowed down, but those cults that do exist continue to gain members, perhaps even at an accelerating rate, would this not indicate that cultism is increasing, rather than the opposite?

Also, I would have liked to see more discussion on the ratio between cults, mainstream religions, and the population as a whole. If the rate of new cult activity is dropping more slowly than the rate of religious activity in general, that would be a net increase in cult activity. In my mind, the paper presents a very useful look at an interesting phenomenon, but an incomplete one.

Mark:

This is interesting and useful but the data appear too biased to be a useful measure for the underlying concept. I think this work would be dramatically strengthened by drawing cults from other resources — in the worst case something like scraping wikipedia for cult-like entities would be informative and would help build certainty in the result that is being claimed.

A secondary issue that occurs here is that none of the causal aspects of the restricted time domain have been counted for in the data analysis. For example, it would be possible to account for two dominant forces here: historic lack of reporting, and the time it takes the world to know about a new cult. As it stands, it seems challenging to make any claims based on this data. One way to model historic context would be to use Google ngram data to try to reduce confounding. One way to deal with the time it takes for information about cults to be widely known is comparing start date to widespread publicity, and create an average expected delay in this kind of information. This would also allow for an improved estimate in how cults have changed over time.

As a minor point, the plots could be substantially more informative and intuitive, which would help strengthen the claim of the work. Plotting and assessing start time and duration as independent factors would be useful here. When counting for confounds like those mentioned above, it would be useful to show an estimate in addition to a count, so as to provide a more reliable sense of the true number of cults to a reader. As it stands many readers will falsely conclude that cults are just declining and that they have historically been a substantial aspect of society.

The motivation of the work seems in part to deal with claims about the decline in counter-cultural sub-communities. One important element of analysis to make this point is to estimate the proportion of counter-cultural beliefs due to cults, by, for example,



tracking the population of people who were part of each of these cults as compared to the total population of the USA or world at that time. In essence, do we actually have fewer people who think differently now? Computational mechanisms like the Gini coefficient might be useful for addressing this perspective.

Extending this idea, I note that a substantial portion of the work seems to be only loosely related to the central argument and focuses on cultural tendencies. This is interesting, but would be better if 1, it was motivated by the core idea of the project, and 2, had a data driven way of motivating its claims and findings.

Overall, I think this is interesting, but a bit more work is needed to make it a useful and trustworthy resource for others to learn from. I encourage you to make improvements and share a new version when ready.

Dan James:

An interesting analysis however one that, for me, had a number of flaws. Though the paper admits to, and somewhat addresses the problem, the label 'cult' is a vague category which implies that an accurate quantitative analysis of the number of cults in existence at any one time is necessarily subjective and highly likely to be the result of implicit selection effects. As a consequence the conclusion of the paper is undermined insofar as the difficulty of defining a cult doesn't really tell us if the emergence of cults has or has not declined in recent years.

The claim that cults represent a 'photo-negative' of scientific communities is questionable. The label 'cult' is often used as a pejorative term to describe groups that we don't understand or like (Schmalz 'The Conversation' 2018), and is rarely applied to science. However there is no good reason to think that science is somehow immune to cult-like behaviour. For example, do string theorists belong, as Lee Smolin suggests, to a cult ('The Trouble with Physics' 2008)? Similar points about physics being dominated by a 'cult' of beauty have also been made by Sabine Hossenfelder ('Lost in Math: How Beauty Leads Physics Astray' 2018).

Nonetheless, given part of the remit of a Seed of Science paper is to encourage debate, this paper, for me, fully meets that requirement so I would recommend publication.

I'd prefer to give this a 'revise and resubmit': This did present useful information, but in a very amateurish way. The time scale on some graphs is reversed, and there are typos and problems with links. Also, most of it after the data analysis was speculation with little evidence.

Fred Nix:

I think there are some interesting seeds of science here, but there are a few changes I would make before publishing. First, the seeds. I think the idea that cults have both positive and negative effects is very interesting. As is the idea that cults seem to have declined, and perhaps will rise again, but maybe in a different form, such as QAnon. The idea of AI cults is particularly interesting. I like the idea of somehow untangling the



good from the bad and educating people about how to resist cults, but at the same time realizing there is some benefit to them. I am not sure how we do that untangling, and I think that is really the seed. We don't want to extinguish cults, in fact, we may want them to grow, but we want to limit the harm. But how? Second, the changes. So, there is a period missing in the last sentence in the Abstract. I think you overreach when you say that "This article provides such an analysis," implying that this is a truly quantitative analysis of broad trends over time. Really, this is a small sample from a podcast. I don't see any harm in just acknowledging the limitations and the need for a larger study. That could be a seed. I want to see time moving forward. I'm now more interested in this topic than I was before. The Peter Thiel quotes are interesting. Keep pursuing your ideas here! This paper could be just the start of your exploration in this area.

Partha Ghosh:

It's an exciting topic, compellingly presented, worth probing in depth to understand the risks and rewards. Most of the future cults will probably be on the internet/ the virtual world: will it be a variation on the echo chambers that exist today, or some mutation hard to anticipate? Perhaps some of us will become more Janus-like, with different persona for irl and virtual selves - and therefore it will be hard to predict who is more predisposed to join a cult?

Ted Wade:

The paper responds to 2 popular speculations about an apparent drop in the incidence of new cults over the last few decades. The data offered to support this might be considered pilot data, but there is no reason to believe that sampling from the population of all cults is adequate to make a conclusion about real trends. Given this, there is little gained by some of the hypotheses offered to account for the incidence data, although the discussion of these is interesting.

Douthat claimed (perhaps channeling Thiel, himself a priest of the Free Markets cult) that "Today, many fewer Americans 'take unorthodox ideas seriously'". That might have barely had traction in 2014, but post-2016 it seems absurd, the opposite of the truth. This also undercuts a cult-ish argument about innovation. One could convincingly argue that belief in stupid things is negatively correlated with creatively solving real problems.

The cultural tightness/looseness idea, on the other hand, seems plausible, with some scholarly support, and could stand alone as one determinant of cultural creativity. It could serve as a causal variable for both religious and economic experimentation, perhaps causing them to be positively correlated across different cultures. Changes in cultural tightness might also explain changes in within-culture creativity over time.

Jan Kirchner:

The paper "Cult Deficit: Analysis and Speculation" examines the curious phenomenon that prevalence of cults has declined drastically in recent decades. While this observation is not novel, the authors substantiate it with a dataset of cults covered by a popular podcast on the topic. They discuss possible factors affecting the rise and



decline of cults, such as the change in ease of information flow, change in cultural "looseness", and the change in openness to psychedelics. In the closing section, the authors provide an outlook on the possible future of cults.

I enjoyed reading the paper (a rare academic page-turner) and applaud the creation of the accompanying dataset. I can think of a few questions that could be investigated with the dataset and with a bit of additional research (which factors affect longevity of a cult? are there shared characteristics of cult leaders?). I believe that publication of this paper in Seeds Of Science can serve as a great jumping-off-point for future research and therefore recommend publication.

Nonetheless, I want to mention some potential problems with the "I know it when I see it" definition of cults. While I acknowledge the dilemma (cults have a lot of incentives to avoid the label), by avoiding a definition the authors take a lot of liberty in how they construct their argument. They gloss over differences that appear substantial (is it fair to mention Trump supporters, Q Anon, and the Manson family without mentioning different levels of cultish-ness?) and draw category boundaries that could be disputed (is scientology really that different from established, highly conservative religions?). My point is not that the choices made by the author are necessarily wrong, but that the chosen non-definition of the term "cult" does not allow investigation of some interesting questions. Along the same lines, the author does not mention the interesting discussion around changes in use of the term as a function of time and the rise of secular anti-cult movements in the 1970s (<https://en.wikipedia.org/wiki/Cult#Definition>).

Michael M. Kazanjian:

An extensive, important article worth reading on cults. I especially appreciate the database of the many cults. This is a must read. I have extensive research on cults, sects, and religions, and this paper is good.

Rachel Prudden:

I'm afraid I don't feel the methodology is appropriate to address the stated question of whether or not cults are declining over time. Using a dataset derived from a podcast is likely to strongly skew the results towards those which have been through a series of events which can be put into a narrative, and for which a reasonable amount of information is available (otherwise it wouldn't make much of an episode). I would expect this to overestimate the relative prevalence of cults formed a few decades ago. I have voted against publishing because the quantitative analysis is framed as the main contribution of the paper and I think it's likely to be misleading. I do think it's an interesting topic, though.



Supplementary Information - Number of cults per state and country

Arizona	1	Nebraska	1
Australia	2	New Mexico	1
California	24	New York	5
Canada	3	New Zealand	2
Chile	1	Nomadic (USA)	1
China	1	Ohio	3
Colorado	2	Online (USA)	2
Florida	3	Oregon	2
France	3	Pennsylvania	1
Germany	2	Russia	2
Idaho	1	South Korea	2
Illinois	4	Spain	1
India	2	Sweden	1
Indiana	1	Switzerland	1
Israel	2	Taiwan	1
Japan	4	Tennessee	1
Kentucky	1	Texas	3
Malaysia	1	Uganda	1
Massachusetts	3	United Kingdom	4
Mexico	4	Washington	1
Michigan	2	West Virginia	1
Minnesota	1	Wisconsin	1
Missouri	1	Zambia	1