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THE WONDERFUL & FRIGHTENING WORLD OF FLAT EARTH

AN ETHNOGRAPHIC INVESTIGATION INTO THE FLAT EARTH MOVEMENT

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Note: The terms ‘wonderful’ and ‘frightening’ are not meant to be normative. Flat earth is not causing wonderful or frightening matters. It is rather part of my research to show that there are interesting social effects stemming from a flat earth worldview which can be regarded as frightening and wonderful when dealing with the Flat Earth Movement and surrounding issues. I will come back to both terms in the discussion (chapter 7) to lay down how I interpreted this terminology.

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Sworn Statement:

“I hereby solemnly declare that I have personally and independently prepared this paper. All quotations in the text have been marked as such, and the paper or considerable parts of it have not previously been subject to any examination or assessment.”

Cosmas Grosser

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Abstract

The Flat Earth Movement (FEM) is built up by a group of people who believe the world to be flat. An assumption that seems ridiculous, especially in the 21st century, is real for members of this particular movement. Its uprising over the last approximately six years brought the topic into mainstream media and popular culture. While members of the FEM mainly act online to share, facilitate and extend their content, they also started to establish offline events like conferences. I therefore conducted ethnographic fieldwork at one of the biggest Flat Earth (FE) meetings, the International Flat Earth Conference (FEIC) 2019 to get first-hand, face-to-face insight into the movement. My focus lies on how the fringe topic of FE was mobilized to gain its current traction, what constitutes as well as legitimizes this worldview and how its proponents advocate their meaning-making processes.

FE is one of the biggest contemporary conspiracy theories and builds on a variety of underlying assumptions. Existing research on conspiracism in general reveals that it is a multidimensional topic that does not merely stem from knowledge deficits or other straightforward hypotheses. It is thus my aim to understand the driving forces that lead to believing in conspiracy theories and provide an in-depth examination of what constitutes a belief in FE.

My ontological approach is social constructivism, with a combination of a sociology of knowledge concept to understand reality constructions, and cultural sociology´s insight of how contemporary social movements establish their course of action. First, knowledge that is socially accepted in certain groups constitutes their reality. Second, modern day and age social movements demonstrate fluid-like characteristics of belonging, mediated through information technology.

My results reveal that the main drivers of a FE belief are conspiracism, an anti-science stance and creationism. These factors encourage to be sceptic, question well-established knowledge, and legitimize the FE worldview, as well as they reinforce each other. To the outside, the movement is widely ridiculed for its claims. The public is however also aware of flat earthers´ potential threat to delegitimize sources of information that are presented by established institutions. To the inside, the movement provides encouragement, self-realization and makes the individual´s voice heard by a group that vehemently demands to uncover supposed unjust actions. Although a final commitment to the movement has social costs for its proponents, it brings them closer to unveil the long searched for, ultimate truth about happenings in the world. Uncovering the ultimate truth has great value and necessitates spreading the FEM´s message further.

1. Introduction

The spherical shape of planet earth and its part in the solar system in an ever-expanding universe is a well-established and accepted fact for most people living on this spinning ball. Starting in elementary school, or maybe even earlier we learn about our position and movement in the cosmos. While further growing up we come to know about a great variety of details about the planet we live on and the system it is embedded in. To be sure, there still are countless open questions about this place. But no matter what or how much we know and do not know about this matter, the very basic understanding undoubtedly remains the same, we live on a ball. It is the truth; it is a matter of fact. Challenging it, especially in the 21st century, seems so ridiculous that one might at first think it is a joke. There is however a movement whose proponents not only seriously questions the shape of the earth; they also propose a different model: The Flat Earth Movement (FEM). As the name suggests, this group of people believes that the earth is a flat plate instead of a sphere, which not only entails a comprehensive rethinking of everyday phenomena but also of the universe as a whole. The numbers of flat earthers are high enough to pay attention to the issue, also because the numbers of FE proponents have been increasing within approximately six years.

Because of the magnitude of its claims and its appeal to more and more people there has been a lot of media coverage about the FEM so far (see e.g. Future US Inc, 2020; Picheta, 2019; Vice Media Group, 2020), but sociological analyses are limited on the topic. In this thesis, I seek to provide a detailed insight into the particularities of the movement. The empirical part is based on my attendance at the International Flat Earth Conference (FEIC) 2019 which took place in Dallas, Texas at the 14th and 15th of November.

I will focus on the FE belief system as a social movement, that organizes around a particular conjecture about the shape of the earth. This conjecture diverges from mainstream assumptions, in that it proposes the earth to have the shape of a disc. However, as will be shown, not all members of the FEM believe that the earth has to be flat. The worldview which connects them far more is a strong questioning of what the general public is being told and whom to trust or distrust for that matter. For the movement, finding the truth, which they believe secret stakeholders withhold for them, is therefore an ultimate goal.

A continuous struggle to unveil the truth, distrust in official sources of information and accepting alternative ideas, ticks the boxes of a conspiracy theory. The FEM forms around the assumption that powerful elites know that the earth is flat but try their best to conceal this fact from the wider public. Conspiracy theories are to be treated with care by anyone encountering them in everyday life, but their spread through online communication channels is faster, easier and more public than ever before. FE is probably *the* conspiracy of conspiracies. If it is possible to basically hide the whole shape of the world from

the public then everything else that is known and commonly accepted as unquestionable truth is also subject to challenge. What makes this conspiracy theory so significant is that when proponents accept FE, they have to accept other conspiracy theories as a result, turning various understandings of the world upside down. Since conspiracy theorists are often considered as crazy by mainstream society, believers in FE are very likely to be considered the craziest of them all. Picking up arguments about this topic, especially online, is fairly easy these days and members of the FEM find themselves cornered but persistent of their worldview through strong group cohesion.

Another characteristic that is quickly to be found when looking into FE is that the FEM´s model is an enclosed system. FE proponents believe that the earth is not only seen as a plate, but also holds a dome on top of it. This entails a completely different understanding of the universe as it is commonly believed in. Questions like: where are the sun and moon then? And how far away are they from us? To, what do we see when we see the numerous other stars? Or, how high is this dome supposed to be? Together with many others arise when we consider this model. But not only looking into the sky changes, also the ground we stand on is questioned: How thick is the disk? Or, what lies on the downside of it? Are again just two of a magnitude of questions arising.

As this game of questioning the details of a FE model can go on endlessly and having clear answers for how certain phenomena are then supposed to work is in many cases hard, there is another shared notion amongst FE proponents: the idea of its creation. If the earth is created, then a higher intelligence has to be involved and if a higher intelligence is involved, explanations often go back to God. This opens up a majority of new discussion points. For example, where human life stems from, creationism versus evolutionism, the role of religion and spirituality, biblical cosmology, the bible read as a factual book, and many more.

Spiritual and religious beliefs are not the only arguments which bring a FE model forward by its proponents. Different kinds of scientific practice are common amongst flat earthers. These practices are used to disprove the curvature of the earth or show that particular phenomena are also explainable if one assumes the earth is a disc. FE proponents usually display a ‘do it yourself’ attitude to science. They are confident that it is easy to conduct vital experiments without relying on scientific institutes. Online networks (mainly YouTube) are platforms to publish and discuss results.

I am not only looking into the beliefs, conspiracies and ‘science’ surrounding FE, but also FE as a movement forming around these issues. This includes its approach, reception, organization, past and contemporary situation, and so on.

Research into social movements can provide in depth explanations on how social communities form, act and evolve. Especially the understanding of dynamics within social movements is important when looking into the FEM. Closely linked to the topic of social movements is the issue of building up and defining one's identity in the public mass. (Collective-)identification, authenticity, agency and sociality are key components of creating cohesion with others in communities. The questions of identity and belonging in a world where people connect ever closer over great distances is essential in understanding how modern-day dynamics of togetherness work. Ultimately, sociological analyses can reveal what it is that creates togetherness and thereby forms personal attitudes, behaviors and worldviews in contemporary societies. Therefore, I aim to understand the social constructions that make people want to be part of the movement and extend the understandings of the FEM, which is widely ridiculed and brings major changes into the (social) life of its members.

The multitude of topics and questions that come together with a FE model and the community that forms around it shows that FE reaches way further than simply the shape of the earth. This is also where my personal interest in the movement grew. After finding out that a movement like this even existed, I wanted to get first-hand insight into it using my skills as a cultural sociologist to provide a further understanding on the sociality that forms around such beliefs. Since the scientific practice of the movement is a strong factor in producing knowledge for its attraction and maintenance, I intend to look into this part with a sociology of knowledge approach that focuses on how the FEM ´s knowledge is produced and established as reality for its members.

This thesis will be structured in the following: the next section contains the formulation of a problem statement that includes my research question as well as the leading questions of my research. After that I will address the current number of studies that has already been conducted on FE but also on other related topics and movements. Next, a broad ontology will be introduced to underline the theory of science behind my approach as well as other used theories. This will be followed by a methods chapter to bring an understanding of how I gathered and analyzed my data. After that I will present the findings extracted from my empirical data, followed by a discussion to bring my work together with the previously introduced theories and existing literature. Lastly, I will conclude to summarize my findings and give an outlook on how future research can contribute to the topic.

2. Problem Statement

This chapter holds my research question and underlying leadings questions for going into and working on the topic of this thesis.

My research question is: "***What constitutes a contemporary movement in its meaning making processes that holds on to the conjecture that the earth is flat?***" I worked out a list of leading questions (Figure 1) during the course of my research to create a structure of where my interests are and what I want to and can answer with this project.

Figure 1 - Leadings Questions

3. Literature Review

I will start this literature review by summarizing studies that have been conducted in connection with FE. Then I will engage investigations dealing with issues that are related to FE, especially conspiracy theories. There are numerous studies dealing with phenomena surrounding conspiracy theorizing which also contain details about specifics of particular conspiracy theories. For example, various opinions on climate change or vaccination are present in contemporary society and studies on these themes show interesting insights on how conspiracy theories are accepted, spread and deliver connections between each other. In the second half of this chapter, I will take a historical account on the topic of FE and introduce its upswing of the last approximately six years.

3.1. Existing Studies

The most relatable study to my research is a master´s thesis called *Flat Earth in the Age of Digital Populism* (Gomez, 2019) by a colleague, Anthony Gomez, who was enrolled in my master´s program two years prior to me. Gomez concludes that the recent FEM can be considered populist in so far as it emphasizes a struggle between pure people and corrupt elites (who conceal the truth about the earth´s flatness from the public), constructs the elites through conspiracy theories and radically exchanges official science with its own. His results rely on online ethnographic fieldwork since the FEM has been very active in online communities over the last years. In closing, however, Gomez mentions an increasing amount and importance of offline FE meetings that could be subject to further studies (Gomez, 2019), which is where I aim to continue on the matter empirically.

YouTube is one of the main facilitators for FE videos. Through YouTube´s algorithms for recommendations, users do not even have to search for FE videos but can get suggestions for clips on the topic via other conspiracy theorists´ videos, based on their alleged already existing interest in such themes. Therefore, Texas Tech experts from media and communication research, Asheley Landrum, Alex Olshansky & Othello Richards (2019) conducted a quantitative media-psychological study on what kind of regular YouTube users are more susceptible to FE arguments who would then further research into FE on the platform. The study includes the role of science communication, mainly investigating the gaps between scientific knowledge and public beliefs in it. In the experiment, probands were measured along the variables: (1) Science intelligence, composed of analytic thinking, quantitative reasoning, and knowledge of scientific facts (see Kahan, 2017). (2) Conspiracy mentality as disposition, including high levels of distrust in

institutions, feeling of powerlessness and cynicism. (3) Religiosity, as strength of religious conviction, regardless of denomination. Those were the main variables to predict FE susceptibility in three different groups. The groups were either shown a scientific, a religious or a conspiratorial FE clip. All three of them were cut out of a FE YouTube video that delivers those different arguments at times. The science clip showed a 19th century experiment that supposedly proved the earth to be flat. The religious clip showed argumentation that religious texts support the FE model. And the conspiratorial clip showed argumentation that NASA´s images of the earth are forgery. Generally, the participants found the argument strength in the videos weak and were not particularly open for further research into FE. The authors add that the general low interest in watching more FE clips after the one in the experiment could be because flat earthers themselves argued that they would often dismiss the topic after their first contact before coming back to it. Going into more detail, certain effects were to be found between the different video groups. The study showed that the scientific clip, compared with the religious, provided stronger arguments and probands produced fewer counter arguments against it. Furthermore, the science clip also made participants with lower conspiracy mentality more open to research FE. Higher conspiracy mentality leads people to be more willing to pursue further FE research when watching the conspiratorial clip. Respondents who were shown the religious clip generally saw it as having low argument strength and produced a high amount of counterarguments to it. The authors however note that the sample of their research population probably contained more atheists and agnostics than religious individuals. Higher scores in science intelligence shows the effects of outweighing high conspiracy mentality into less FE acceptance as well as less FE research openness. This result confirms science communication´s *knowledge deficit hypothesis*. The knowledge deficit hypothesis, based on the public deficit model in science communication research, anticipates that the knowledge gap between science and public depends on the public´s science intelligence. The higher the science intelligence, the more people agree with scientific facts and vice versa (see Suldovsky, 2016). It must however be treated carefully since it is an over-simplistic assumption, ignoring other factors such as values, beliefs and worldviews. Also, the focus of the study lies on cognition factors, while there certainly are emotional and excitative aspects to FE beliefs and interests. Concluding, the study shows who is least resistant to FE videos rather than who is more susceptible to them (Landrum, et al., 2019).

In another experiment Landrum & Olshansky (2019) investigated whether and to what extent conspiracy mentality influences the rejection of established scientific theories and acceptance of deceptive and viral claims (publicly often referred to as ‘fake news’) about science. Fake news, which are the alleged spreading and misleading of deceptive information through unverified sources in its recent form has drawn a lot of

attention in political contexts. But the notion of fake news also frequently holds conspiratorial ideas about vaccination, nutrition, FE and the likes, while undermining "regular news´" credibility (Lazer, et al., 2019). To emphasize its dangers, Kathleen Hall Jamieson, director of the Annenberg Public Policy Center, argued for rather calling it "viral deception" (VD) instead of fake news to create an association with venereal disease (Annenberg Public Policy Center of Pennsylvania, 2017). Coming to the details of the study, it was conducted with 513 participants from an American online panel and 21 attendees of the first annual FEIC in 2017. Unsurprisingly, the group of flat earthers scored significantly higher in conspiracy mentality than the national sample. Conspiracy mentality (mainly) and science literacy were the strongest factors in predicting the rejection of established scientific claims and the acceptance of deceptive and viral claims about science. However, not a lot of probands showed very high scores in conspiracy mentality and the variable could not, for example, predict climate change rejection. Again, a higher score in science literacy could outweigh conspiracy mentality in this regard. Another finding therefore was that the combination of higher conspiracy mentality and lower science literacy significantly lead participants to support the claim that 'childhood vaccines are unsafe and cause disorders like autism' as likely to be true. Religion and party affiliation (republican, democrat, independent or unaffiliated) worked as reinforcing factors in some cases but showed no significant predictions otherwise (Landrum & Olshansky, 2019).

I will now turn to the topic of conspiracies and studies dealing with the issue. Their relevance for my study is clear, proponents of conspiracy theories believe in the existence of evil elites, hiding the truth about a phenomenon from the public. These conspiracies can surround issues form anti-vaccination to FE theory and every other explanation where official sources are not trusted.

Studies on conspiracism are often based on single-nation data, mostly American, as the two previous examples also are. Thus, Hornsey, Harris & Fielding (2018) were prompted to conduct a quantitative 24-nation investigation, focusing on the link of conspiracy theories and anti-vaccination. Emphasis of the study lies on negating the above mentioned deficit model which proposes that repeating evidence is a valid method for changing anti-vaccinators´ beliefs and behaviors. The authors were therefore not asking why people would reject evidence about vaccinations but why they *want* to reject evidence, focusing on underlying motivations. This goes in line with the notion of the 'attitude roots' (Hornsey & Fielding, 2017) model which does not focus on attitudes emerging on the surface, but the factors rooted in people´s belief system. The four attitude roots used were: Conspiratorial beliefs (willingness to endorse conspiracies generally), disgust (fears and phobias of, for instance, blood and injections), reactance (way of communicating a nonconformist identity) and individualism/hierarchism (preferring to make decisions for oneself and the belief that natural hierarchies as well as power differences are healthy parts of society).

The results revealed that all four variables showed significant effects in creating antivaccination attitudes consistently through the 24-nation sample. Conspiratorial beliefs were the strongest factor, followed by reactance, disgust and lastly a combination of an individualistic and hierarchical worldview. Demographic variables were not able to explain the phenomenon in the way the attitude roots variables were. For example, neither education nor gender showed a significant relationship with vaccination attitudes. Although, younger people turned out to be more skeptical, age alone only explained a small part of the phenomenon. Lastly, the study showed that more conservative participants held stronger antivaccination attitudes. The authors moreover imply that vaccine hesitancy can lead to other conspiratorial beliefs since people were most likely exposed to conspiratorial material about vaccinations (making claims such as 'vaccines cause autism' or 'vaccine overload has adverse effects on children', etc.), leading them to material connected to other conspiracy theories. The study concludes that providing further and corrective information on vaccination is rather ineffective and/or even counterproductive. Thus, if a person or program was trying to change antivaccination attitudes, it would be key to understand underlying reasons for it and tailor interventions on those (Hornsey, et al., 2018).

Another widely discussed topic in the public rejection of science is climate change. Additionally, it is a very up to date issue in contemporary politics that is driven by personal ideologies which can be supported by conspiratorial beliefs due to the broad disagreements upon it (Maslin, 2019). Because of climate change´s current politicization and its potential threat for market regulations, Lewandowsky, Oberauer & Gignac (2013) conducted a questionnaire-based study upon visitors on climate change blogs to find out whether a laissez-faire free market ideology impacts attitudes towards climate change science. Further items in their investigation were several conspiracist ideations and the acceptance of other scientific facts such as 'HIV causes AIDS' and 'smoking causes lung cancer.' The results showed that the support of free market ideology is a strong predictor for the rejection of climate change science. It was also associated with the rejection of other sciences but not as strongly as it was the case with climate change. The second strongest factor in predicting the rejection of climate change and other sciences was conspiracy ideation. Perceiving that former environmental problems have been resolved was associated with lower acceptance of contemporary climate science but not with other sciences. One factor that did influence the acceptance of science was a perceived scientific consensus. The results furthermore showed no correlation between conspiracist ideation and the other two predictors of rejecting (climate) science, meaning that people in climate change blogs do not have to hold a conspiratorial mindset to support free market ideology or think that previous environmental problems have been resolved and vice versa. The findings however suggest that the belief in conspiracy theories predisposes people to reject other unrelated scientific facts. In

conclusion, the authors underline conspiracist ideation as a personality factor or mindset because the belief in many conspiracy theories is built up within one coherent structure. Since this structure can hold a wide range of topics (including FE), further investigations into conspiracy theorization are highlighted to be increasingly important in the modern day and age (Lewandowsky, et al., 2013).

Further studies linked to the above outlined issues focus on a variety of factors and phenomena that have to be considered when dealing with the multidimensionality of science communication, science denial, conspiracy mentality, information circling the internet, and so forth. Religiosity, for instance, was found to be a perceptual filter for knowledge on nanotechnology (Brossard, et al., 2009). The authors of the study found out that religiosity was used as an "interpretative tool for audiences" (Brossard, et al., 2009, p. 555), high levels of it serving as factor for counterarguing against federal funding of the technology. Douglas & Sutton (2008) went into more detail regarding the simplicity of conspiracy theories´ spread and hidden impacts. Their experiment showed that even though participants were aware of being influenced by conspiracy theories (in this case surrounding the death of Princess Diana), they underestimated their own attitude change significantly. They were however still able to accurately estimate others´ attitude changes. Concluding that people might generally perceive their own resistance to conspiracy theories inaccurately (Douglas & Sutton, 2008). Douglas & Sutton, in another study (2011), investigated upon the endorsement of conspiracy theories. They showed that participants were more likely to justify conspiracy theories if they themselves showed willingness to engage in a conspiracy like the alleged conspirators did. The personal willingness to conspire also served as a mediator between the moral standpoint for willingness to exploit others for personal gain (Machiavellianism – see e.g. Hodson, et al., 2009) to ultimately endorse conspiracy theories (Douglas & Sutton, 2011). Lastly Bain, Hornsey, Bongiorno & Jeffries (2012) showed that 'converting' climate change deniers proves to be more effective by underlining the positive societal effects of climate change mitigation efforts rather than repeating scientific evidence of risks to them. They conclude that it is people´s caring for society and development which leads them to refuse scientific facts, but not their misunderstanding of information (Bain, et al., 2012).

Existing studies focus on science intelligence/literacy, conspiracy mentality, specific personal attitudes and value dispositions, individualist worldviews, and free-market ideology when trying to understand the rejection of established science and current beliefs in conspiracy theories. Furthermore, researchers point out that official science does not only get replaced by one conspiracy theory but many. Hinting that once an alternative source is accepted, various seem to be appealing. To acknowledge the possibility of conspiracies as well as their plausibility and influence under certain circumstances is an important reflection when working on the topic. Religion and right wing party affiliation are suspected factors for

contributing to this mindset but have remained co-variables rather than significant predicting parameters. Lower levels of education are also not able to explain the rejection of science or a leaning towards conspiracy theories.

Science communication, specifically the knowledge gap between scientists and the public, is a key issue in the discussion about the rejection of science. Even though explaining this gap via deficit model (Suldovsky, 2016), which emphasizes a lack of exposure to information as reason for it, might prove to show significant results, arguing through this model should be treated with care. As presented, it is mentioned to be over-simplistic (Landrum, et al., 2019) and only epistemologically satisfying but not helpful for a deeper understanding of the issue (Hornsey, et al., 2018). What is pointed out is that research should rather focus on people´s motivated reasoning (see Kunda, 1990) for rejecting science and accepting alternative sources. This moreover turns away from the hypothesis that there straightforwardly is an intellectual gap to be filled. Motivated reasoning highlights the multidimensionality of the topic, focusing on what people *want* to believe and not simply what they believe. The attitude roots model (Hornsey & Fielding, 2017) which draws onto motivated reasoning, is therefore a more in-depth approach than the deficit model. As the name suggests, the 'roots' are underlying reasonings behind people´s argumentations, values, beliefs, convictions and the likes, which are subject to investigation.

Existing studies that have been conducted on the phenomenon of FE and other conspiracy theories are mostly done in the field of (social & media) psychology. Researchers tackle the issue as happening online and mainly conduct quantitative tests. What is consistent is a call for more research on understanding conspiracism.

3.2. Historical Account and Current Discussion

I now want to turn to a historical and medial account surrounding the debate upon the earth´s shape. Considerations on the shape of the earth and cosmos historically, religiously and culturally go way back in time. There are historians who worked out a detailed history of the movement and lot of current media coverages on the issue.

To start with a recent example, a YouGov survey among 8215 adults (above the age of 18 years, notably across the US) revealed numbers upon the belief in the shape of the earth (Nguyen, 2018). While in total only 2% of the sample stated that they always believed that the world is flat, 4% of the 18-25-year-olds did so. The latter number is still not high but already hints that FE might be more appealing to the younger

generation. On the contrary, 84% of the participants stated that they have always believed that the world is round[1]. One of the most surprising findings of the survey however was that only 66% of the 18-25-year-olds have always believed so. Generally, the trend of this statement shows lower numbers when going from higher to lower age (55+ year-olds: 94% / 45-54 y-o: 85% / 35-44 y-o: 82% / 25-34 y-o: 76%). Furthermore, 52 % among the people who believe in a FE model considered themselves to be 'very religious.' Compared to 20% in the overall sample, this finding supports the assumption of a link between religiosity/spirituality and the FEM (Nguyen, 2018).

The just mentioned survey provides interesting findings on a debate that was supposedly settled a long time ago. But, since when do we know that the earth is a sphere, how do we know, where does the discussion on the shape of the world stem from time and time again and why it is not (at least to some) settled yet? I will now turn to the history of the debate and specifically the last approximately six years to depict the current upswing of the FEM.

When trying to find a starting point of beliefs as well as research into the shape of the earth and surrounding phenomena, it is important not only to consider when those reflections took place but also their cultural and religious context. Records of ancient cultures like the Egyptian and Mesopotamian point to creationist worldviews that suggest a disk-shaped earth in an enclosed cosmology. For historians it is however hard to pin down the exact time and age of the worldviews for times before textualization. Furthermore, even with textualization it is hard to trace back to when the believes actually belong to.

Ancient Greeks held well-documented records of their culture and beliefs. They had various scholars trying to model the shape of the world. Homer, for example, believed in a disk-shaped earth, encircled by a river with the sky as a hemisphere of bronze or iron covering it (Wright, 2013). Anixamander even laid down a concept of the cosmos and formation of the earth, as Anthony Gottlieb (2016) describes:

"[…] Anaximander's story of the birth of the cosmos went as follows. Some sort of egg, germ or seed containing the fundamental opposites of hot and cold separated off from the indeterminate apeiron. This seed grew into a cold, damp mass surrounded by a ring of fire, and the shock of hot against cold gave rise to a dark mist between the two. The cold became the earth and the fire formed the stars. The earth is a flat disc, or perhaps a cylinder, but certainly not a sphere." (Gottlieb, 2016, p. 19)

[1] Technically, the basic structure of a FE is also round which is why I would argue that the item 'I have always believed that the world is round' is not the most precise measure. Although participants of the study most likely have understood the question correctly, I would still say that it would be better to ask if people believe that the earth/world is a sphere, globe or geoid.

These, among others, were philosophical reflections on the cosmos. One of the first empirical observations to indicate the spherical shape of the earth was that ship masts were visible on the horizon when the body of the ship was not. This observation is often falsely attributed to Aristotle in *De Caelo* (350 BC). It can however only later be found to be stated by Ptolemy in *Almagest* and a century earlier than that by Pliny the Elder in *Natural History* from around 77 AD (Abrams, et al., 1950). Our modern understanding of the earth´s shape is frequently traced back to empirical observations like this. The oldest documented experiment is probably Eratosthenes´ in the third century BC. He calculated the circumference of the earth with a sundial, very close to our contemporary measurement, to be approximately 40.000 kilometers based on distances from Syene to Alexandria (Wright, 2013).

While these observations began to establish the acknowledgement of the spherical shape of the earth at the times, there was still wide disagreement on understanding the cosmos. It was not until 1543 when the heliocentric model gained wider attention through Nicolaus Copernicus (Encyclopedia Britannica, 2019).

A common misconception is the assumption that people in the middle ages (300 AD to 1492 AD) widely believed the earth to be flat as a disc with Columbus disproving this view through his voyage to the new world (Russel, 1991). As I pointed out above, a spherical model already gained attention in the third century BC. There were still scholars who were proponents of a FE model in medieval times like Lactantius or Cosmas Indicopleustes. According to Russel, the picture of a widespread belief in the earth being flat in the middle ages is however a myth, later enforced by protestant anti-Catholics and Darwinists to discredit the Catholic teachings from these times (Russel, 1991).

Apart from the seemingly common consensus on the spherical shape of the world, a FE upswing took place in the mid to late 19th and early 20th century. Its origins trace back to Samuel Rowbotham with his book *Zetetic Astronomy* (1865) that includes the findings of the, by him conducted and infamous, Bedford Level Experiment. From his experiment on the 9,7-kilometer-long Old Bedford River in the UK, measuring his line of sight to a boat with a flag on it, lead him to the conclusion that if the earth was a sphere:

"[…] The boat at [point] B would have been 200 inches or above 16 feet below the surface of the water […] and the flag on the boat, which was 3 feet high, would have been 13 feet below the line-of-sight […] It follows that the surface of standing water is not convex, and therefore that the Earth IS NOT A GLOBE! […] This simple experiment is all-sufficient to prove that the surface of the water is parallel to the line-of-sight, and therefore horizontal, and that the Earth cannot be other than a PLANE!" (Rowbotham, 1865, pp. 12-13)

Rowbotham´s observation was later explained by the effect of atmospheric refraction (see e.g. Basey, 2019). But his approach still found appeal for others through its experimental focus. As the word that not only titled his book but also lead him to the founding of the zetetic[2] society suggests. In later parts of the book he also emphasizes his strong believe in God as the creator of the world, references in scripture and biblical cosmology (Rowbotham, 1865, p. 182 onwards). Inspired, William Carpenter picked up on Rowbotham´s philosophy and published the book *One Hundred Proofs the Earth is not a Globe* (2017 [orig. 1885]) in which he provides his arguments in short paragraphs. Further authors like David Wardlaw Scott with *Terra Firma: The Earth Not A Planet* (1901) and Gerrard Hickson with *Kings Dethroned* (1922) picked up this approach as well.

In 1956, Samuel Shenton founded the International Flat Earth Research Society (IFERS), as descending from Rowbotham´s Zetetic Society (Garwood, 2008). As this was very close to the first space missions, the media began to pick up the topic more and more. Shenton kept holding onto his FE model even though the space missions provided footage proving the spherical shape of the earth. It was this time when FE publicly became to be classified a conspiracy theory more clearly. As for Shenton, reason to conspire about the true shape of the earth was to hide God as its creator and reason to believe in the globe model came from lifelong indoctrination of the masses. Shenton still found support for his worldview but was confronted with strong opposition and being widely labeled insane. In the 1970s the Flat Earth Society (FES) and the International Flat Earth Research Society of America (IFERSA) were founded by Shenton´s supporters. The FES however used comic overtones in the delivery of their agenda while the IFERSA always kept serious about their work. By the mid-1990s the IFERSA counted about 4.000 members worldwide (Garwood, 2008).

While the topic of FE seemingly lost its appeal in the beginning of the 21st century, a new upswing of the movement started approximately in 2014. It was the year Eric Dubay published his book *The Flat-Earth Conspiracy*. But he gained most resonance through YouTube and other online media (Dubay, 2020). Not much later, one of the most prominent figures of the contemporary FEM, Mark Sargent, launched the video series *Flat Earth Clues* on YouTube and put them into a book in 2016. The topic of FE became more popular in only two years and even though there was seemingly not so much difference to the above carried out FE theory context wise, it resonated with people more than ever. The most important change this time was that it could spread easier and faster via social media channels. People were so interested and intrigued by the topic that the First International Flat Earth Conference launched in 2017.

[2] Translated from the Greek word *zeteo* = to question, search, examine, challenge, explore the forgotten and ignored (WordPress, 2020).

Furthermore, the documentary *Behind the Curve*, largely following Mark Sargent´s journey in the movement, was released in 2018.

The *Globe Lie Tour* started in August 2019, going through Europe with conferences in Kidderminster and Amsterdam (FE Convention, 2019). The first-ever Brazilian FE conference took place in 2019 as well, after a survey revealed that even 7% of Brazil´s population believes the earth to be flat (Cowie, 2019). Lastly, the FEIC in Dallas, was the final big conference in 2019 (Kryptoz Media & Flat Out Truth, 2019).

Several media reports over the last years picked up the topic of FE, interviewing speakers and attendees of FE events to find out about their worldview. The answers are usually that watching several YouTube videos ultimately convinced them, going out to test or debunk the earth´s curvature for yourself is easy, they are frequently being called stupid but keep standing in for the truth, the growth of the movement, through the globe model God is tried to be hidden, gravity is non-existent, NASA is lying and so forth (see e.g. Picheta, 2019; The Thaiger & The Nation, 2019; Vice Media Group, 2020; Prescott, 2019; Gallagher, 2019; Future US Inc, 2020; Hvistendahl, 2019).

To summarize, questioning the shape of the earth is by far not a new phenomenon. While lots of ancient records go back to philosophical and religious considerations, empirical research into it already took place about 300 BC. Moreover, the spherical shape of the earth has been commonly accepted for a very long time as well as the heliocentric model of our solar system. However, the belief in a FE model and geocentrism can be found throughout history. Away from philosophical modeling, today´s do-it-yourself research attitude of flat earthers can be traced back to the mid-19th century. FE is moreover connected to be underlining a biblical-creationist worldview. The current upswing in the number of flat earthers can at least partly be explained through social media use and especially YouTube as facilitator of content.

4. Theory

In the following I will present the theoretical considerations of this thesis. I start by introducing more general sociological theories and then go into more detail on theories for the specific topics that are dealt with throughout the text. I will also point out why I choose these specific theories for my research into the FEM and what it means for my research focus.

4.1. Social Constructivism and the Sociology of Knowledge

My general sociological approach to investigate and understand the FEM is social constructivism under the lens of the sociology of knowledge. Social constructivist theory originates from the work of Peter L. Berger and Thomas Luckmann (Teater, 2015) which is why I start by introducing *The Social Construction of Reality* (Berger & Luckmann, 1966). The key terms here are "reality" and "knowledge" within their content-dependent, social relativity, meaning that the relationship between these terms draws onto the social setting it is embedded in. The sociology of knowledge "deal[s] not only with the empirical variety of 'knowledge' in human societies, but also with the processes by which *any* body of 'knowledge' comes to be socially established *as* 'reality'" (Berger & Luckmann, 1966, p. 15). Moreover, the validity or invalidity (by any criteria) of knowledge is dependent upon certain standards in society. For example, the validity of scientific standards is conditional on the content it is embedded in. Facts are thus not discovered; they are socially produced. It is culture that determines our view and experience of the world (Abercrombie, et al., 2006). Everyone is a participant in society´s ongoing production and reproduction of knowledge that is the very "fabric of meanings" (Berger & Luckmann, 1966, p. 27) in society´s existence. Hence, if we want to understand the reality of certain parts of society, we have to look into the manner of their reality-construction. Larger societies can hold sub-societies with their own particular reality constructions as well as understandings of valid and invalid knowledge.

Two more points in Berger & Luckmann´s social construction of reality are essential; society as *objective* and *subjective* reality. First, as knowledge establishes in society, it becomes objectified. Thus, it makes reality an objectively valid truth through processes of externalization and objectification. We realize knowledge about society as we apprehend the objective, or objectified, social reality we belong to, but at the same time we ongoingly produce and reproduce it through human action. As certain types of knowledge come to appear as a general, objective, valid truth of reality, deviant understandings of reality appear as a departure from it. Such departures, for instance the belief in FE, have consequences, at least

in terms of how the deviants are treated and classified by the majority. Often, their cognitive status in the social world is categorized as inferior (Berger & Luckmann, 1966). The second part, society as subjective reality, refers to the internalization of objective reality. It takes place through two processes, primary and secondary socialization. The former happens early in life, it is the socialization as a child and lays the basis for the latter. In this stage, significant others (usually the parents) teach children the basic structure of reality. These structures cannot be chosen by young children and doubt is not rising against the significant others. Secondary socialization, which occurs later in life, calls for a more active role of the individual. In this stage, that is an ongoing process throughout life, institutional sub-worlds are internalized. The active engagement and un-rootedness of knowledge in secondary socialization makes one ready to challenge previously held definitions of reality. These challenges can be of minor but also major change. Secondary socialization occurs through interaction with significant others, who facilitate changes. Subjective reality is maintained especially through conversation with them. If changes in secondary socialization are of great magnitude, a transformation of subjective reality can take place. In case of a near-total transformation, an individual "switches worlds" (ibid., p. 176) and an alteration like that requires a thorough re-socialization. This not only changes the present understanding of reality for an individuum but also the past has to be re-interpreted under present day reality (Berger & Luckmann, 1966), as it is the case, for instance, with religious conversion.

So far, I can note the following when I apply the above-mentioned theoretical approach to the FEM, its proponents, and the research of this thesis. The FEM is a good example for how knowledge plays its part to construct reality within a group in society. The social setting of FE stems from being an online community but within recent years their offline meetings have increased in numbers. Furthermore, validity and invalidity of knowledge plays its part for the movement. Its proponents certainly constitute validity of, for example, scientific research differently than it is common in society. Through strong historical institutionalization of the globe model, opposition to the FE model is widespread and flat earthers are seen as deviants. I investigate into parts of people´s subjective reality and secondary socialization. In other words, what are the social processes through which people come to adopt an understanding of the world being flat? Significant others play a big role for the FEM and via social media, communication with them is easily done. A belief in FE can be regarded as re-socialization as it clearly changes basic understandings of reality. Thus, I will tackle the question of how this re-socialization is constituted for members of the FEM, for instance, in adopting wider anti-science attitudes or conspiratorial mindsets.

4.2. Trust

Issues of trust and distrust are important for the topic of FE. On the one hand, there seems to be a great amount of distrust in established institutions such as mainstream science. On the other hand, trust is put into fringe areas of belief systems such as conspiracy theories. As Anthony Giddens, points out in *The Consequences of Modernity* (1991), trust in modern times is frequently put into abstract systems. Abstract systems, in most cases established through expertise, are general bodies of understanding or knowledge that individuals accept as trustworthy sources without knowing details about them. We encounter abstract systems via access points that serve as meeting ground. Access points are usually experts, their representatives or delegates who facilitate certain bodies of knowledge. While abstract systems are objectified, access points hold the reminder that actual people are behind these concepts. Trust is implicit or as Giddens puts it: "Trust is much less of a 'leap to commitment' than a tacit acceptance of circumstances in which other alternatives are largely foreclosed" (Giddens, 1991, p. 90). Normally, the very basis of trust is built up in early stages of life. Further access points can then create and enforce attitudes of trust but also initiate lack of trust or even distrust towards an abstract system if the access point experience is negative. Modern medicine, for instance, is an abstract system and the doctor encountered by a patient is an access point that can hold negative experiences. Doubting or disbelieving certain abstract systems or persons can be characterized as mistrust. The antithesis to basic trust as a state of mind can however be summed up as "existential '*angst*' or '*dread*'" (ibid., p. 100).

A practical example in connection with FE is the belief in the globe model or understanding of the cosmos, which can be seen as abstract systems (embedded in the abstract system of astronomy). Even though I haven't been in the stratosphere to see for myself, I believe that there is a curvature of the earth that ultimately constitutes our planet as a sphere. First access points for that abstract system are usually a child´s parents or teachers in elementary school, even though not explained by experts in the field, the source of it goes back to them. For flat earthers, these abstract systems are not trusted.

As I already introduced above, especially distrust in science is one of the main issues regarding the topic of FE. Naomi Oresekes recently published her book with the suitable name *Why Trust Science?* (2019) in which she tackles the questions of when and why science is reliable. One of the core messages of the book is that science´s greatest outputs can be achieved through collectivity in a sufficiently diverse scientific community. This way science can achieve crucial, maximized objectivity to be receptive for the public (Macedo, 2019). Although it is inevitable that scientists make mistakes and scientific facts are always subject to falsification (going back to Popper, 2005 [1935]), it is important that general trust in science is

kept up in society. Otherwise it is easy that people fall for deliberate misinformation which is motivated by corporate, economically- or ideology oriented interests (Oresekes & Conway, 2010).

Since flat earthers´ trust in certain aspects of scientific research seems to be particularly low, part of my research is about finding out what they make of established scientific practice. Especially practice that constitutes the worldview of a spherical earth in the heliocentric model.

4.3. Conspiracy Theories

Lack of trust in scientific institutions doesn't end the search for truth about a phenomenon. The world of conspiracy theories offers a wide array of explanations emphasizing to provide *The Truth* (see e.g. Kryptoz Media, 2020). Topics range from historic events to scientific discoveries and any other source that seemingly doesn't deliver a trustworthy official story. A common feature of conspiracy theories is the idea that a group of powerful people are conspiring to hide the alleged truth from the wider public. I already introduced existing studies on conspiracy mentality and similar coherent issues and will now turn to the theoretical aspects of conspiracy theorizing.

"A conspiracy is a group of agents acting together in secret" (Coady, 2006, p. 1). One or two persons cannot be conspiring, and it cannot be done openly. A conspiracy theory is subsequently the conspiratorial explanation of an act. Its need for secrecy is often due to the act being sinister. Official versions of events that contain a conspiracy are usually not called conspiracy theories. Thus, another characteristic of a conspiracy theories is that they stand in opposition to an official explanation of an act.

Karl Popper was one famous philosopher of the 20th century who briefly dealt with the topic of conspiracy theories. In *The Conspiracy Theory of Society* (1972 [1963]) he puts down his thoughts on the issue on a bit more than two pages. Popper concludes that conspiracy theories do not work because they do not consider the unwanted consequences coming with them. Actual conspiracies failed because of unwanted consequences that did not let them go through. Hence, the ones that supposedly were not uncovered have, at best, very little truth in them (Popper, 1972 [1963]).

For me, a strikingly interesting thought on conspiracy theories is that if we allow the consideration that conspiracies might happen, the ones that we allegedly find would be the "bad" and hence more likely the untrue ones. The reason is simple, "since secrecy is essential to the success of conspiracies, the ones that we know about will tend to be the unsuccessful ones" (Coady, 2006, p. 5). Another reflection on conspiracy theories argues that even though they might be true, believing in conspiracy theories is never rational or

as I would add given the bad reputation of conspiracy theories in society, seen as rational. This is due to the fact that conspiracy theories are suspicious of errant or unexplained data which are natural in scientific discourse. A scientific approach would be that there is naturally still data missing instead of arguing that there is a conspiracy behind it (Keeley, 2006).

Generally, the philosophical debate moved to expelling conspiracies despite their actual probability of them happening, running error of excessive unwillingness to believe in them taking place. Coady terms excessive willingness to believe in them "paranoia" and excessive unwillingness "naivety". Avoiding those extremes is "realism", considering that "the extent to which it is rational to be skeptical of conspiracy theories partly depends on the extent to which it is rational to suppose that the official institutions responsible for gathering and disseminating information in one´s society are trustworthy" (Coady, 2006, p. 10). Coady focuses on the multidimensionality of the topic. He states that we should consider not only the trustworthiness of information in society and content of conspiracy theories, but also the social and political context in which they take place when dealing with conspiracy theorizing (Coady, 2006).

Further theoretical accounts on conspiracy theories, mainly in philosophy, sociology, history and psychology, state that it is certainly not easy for scientists to deal with conspiracy theories simply because scientific theories are often directly dismissed by conspiracy theorists. It is however important not to be reactional to such claims as science can take positives from conspiratorial statements. For instance, most conspiracy theories are not actually harmful for the sciences in question but rather challenge to improve social explanations. It is furthermore important to be aware of the possibility of genuine conspiracies happening as well as understanding that a wide array of beliefs fosters openness in society (Clarke, 2002). The emotional reaction to conspiracism not only applies for people directly questioned or confronted by conspiracy theories, but also for the public. In public discourse conspiracy theories easily lead to emotionally fueled group polarization, pushing people on both ends of the spectrum further towards their corners and away from consensus (Sunstein & Vermeule, 2009). This form of reactance (see e.g. Brehm & Brehm, 1981) is generally nothing new. It is shown that repeating the same facts over and over while dismissing others´ arguments fortifies positionings on both sides. One last problem with counterarguing to conspiracy theories is their resistance or even invulnerability to contrary evidence. This self-sealing quality makes them especially resistant to evidence provided by certain institutions, that are usually parts or in connection with the alleged conspirators themselves (Sunstein & Vermeule, 2009).

The role of conspiracy theories in society, apart from being hostile attacks on established facts by insane proponents, is an investigated issue. Conspiracy theories fulfill social functions and psychological needs by

reducing the complexity of human affairs and purporting the identification for underlying sources of misery and injustice. Or put differently, “a belief in conspiracy theories helps people to make sense out of a confusing, inhospitable reality, rationalize their present difficulties and partially assuage their feelings of powerlessness” (Bale, 2007, p. 51). Conspiracy theorists try to combat highly influential, organized, omnipresent and omnipotent conspirators (Bale, 2007). Present throughout history, but especially in modernity, this anti-elitist mentality found its way into popular culture (Clarke, 2002). Stef Aupers argues for the embeddedness of conspiracy culture in the modern day and age, especially through media in various forms. In movies, for example, we frequently follow protagonists through their journeys of uncovering sinister conspiracies that in the beginning no one wants to see or belief. But ultimately evil networks are uncovered and the ones doing so become heroes and heroines (Aupers, 2012). In other words, popular cultural productions like fictional movies introduce and expose people to a mainstream narrative about uncovering hidden conspiracies. Aupers also accounts the role of social media in terms of contributing to conspiracy culture. Social media strongly facilitates all sorts of information in modernity. Since social structures lose plausibility, explanations are sought in various instances. Digital media´s “prosumer” culture, concurrently producing and consuming, is therefore an appealing approach to gather, process and produce information (Aupers, 2012).

Lastly, one recent comment on conspiracy theories by Muirhead and Rosenblum (2018) stresses the development of conspiracy culture, especially in American political context. They term it *conspiracies without theories*, agreeing with the current move of conspiracism from margin to mainstream but adding that its new form is satisfied with vague assertions and thus lazier than before. It is done not to give meaning to events anymore but simply to delegitimate the government through delegitimating individuals or specific offices. Vague assertions evade responsibility, put forth endless investigation, and do not need explanations anymore. They merely suggest that certain events are plausible and thus respectable. The authors warn from the destruction of the administrative state and delegitimization of democracy as ultimate danger of this trend (Muirhead & Rosenblum, 2018).

In conclusion, conspiracy theories pose an interesting field for investigations. While conspiracism is a feature of modern culture that helps to reduce complexity for some, it is always important to keep its dangers in mind, especially in contemporary developments. On the one hand, it is key to be open for conspiracy culture but on the other hand not to underestimate the potential threat of conspiracism, as for example health risks through anti-vaccination attitudes.

5. Methods

In this chapter, I will present the methods which I applied in the empirical work for this thesis. It mainly includes how I gathered and analyzed my data. But also, my position in the research field, who the respondents were and how I approached them, why the specific choice of combining methods was useful in tackling the issue and what challenges or potential shortcomings they could hold. In general, I used a qualitative research design (see e.g. Silverman, 2016) to get first-hand, in-depth information that is built up on personal narrations connected with the topic under investigation.

5.1. Data Collection

All of my data collection took place at the Flat Earth International Conference (FEIC) 2019 in Dallas, Texas, during mid-November. This included two days of program at the conference as well as a pre- and a post-conference day to interact with people. Even though flat earthers hold a big online community I preferred to do an offline approach on the matter. While there are good reasons for conducting online ethnographic fieldwork (or "netnography") in contemporary social sciences (see e.g. Kozinets, et al., 2014; Markham & Stavrova, 2016), I wanted my study to be based on face-to-face social interaction. One argument therefore is that a publicly polarizing topic like FE can lead people to be more aggressive, defensive, offensive, passive, active or otherwise when they are online than they might be in person. Adding that possible anonymity on the internet also plays a role for such factors (Whitehead, 2007). At a conference, participants are most likely to be in their comfort zone which made it more likely that I would find interactions characterized by a relaxed atmosphere. Berger & Luckman for instance note that "typifications of social interaction become progressively anonymous the further away they are from the face-to-face situation" (Berger & Luckmann, 1966, p. 46). Taking the above listed factors together, the FEIC as one of the biggest flat earth conferences of the year, delivered a good opportunity for me to conduct my research. I gathered the data through ethnographic fieldwork and interviews during the time in the field. But before I go into more detail on those methods, I first describe the venue, sample and my position in the field. All parts hold some general methodological reflections on how I dealt with conducting the fieldwork.

5.1.1. Venue

The event took place at a conference center in Frisco, a Northern part of Dallas. Over its course the event location was crowded with roughly 500 to 600 attendees. A lot of them stayed at the hotel of which the conference center is part of. Two stages were built up in respective halls for speeches, a big main stage and a smaller workshop stage. The broad corridor in front of the halls held enough space for a merchandise stand and further tables for the speakers. Figure *2* holds a few impressions of the venue.

Figure 2 - Venue: Left to right & top to bottom: (a) Conference Poster, (b) FE Banner, (c) Bookstand, (d) Car with Ruler, (e) FE Van, (f) Main Stage During Preparation, (g) FE Video Games, (h) Main Stage During Speech, (i) FE Model with Constellations

5.1.2. Sample

After I chose to do my fieldwork at the FEIC 2019, the sample for this research was clear. It included everyone I found time to talk to at the conference, such as mainly the attendees and speakers. Since I

expected the former to be harder to reach out to during the conference, I contacted the speakers who provided contact information on the conference website or their personal ones. Since the conference took place in the US, the attendees were mainly Americans, as were the speakers (Kryptoz Media, 2019).

Another group of people that I expected to be present were media representatives, since there is no shortage of media coverages at such events. My plan was therefore also to talk to media representatives to get more insight into the medial side of conducting coverages on the FEM.

5.1.3. Position in the Field

I positioned myself as a participant observer in the field. Meaning that I was recording what happened at the conference while participating at the occurring events (Bernard, 2006). My name was recognizable on my 'General Admission' (see Appendix C) name tag every participant at the conference was wearing. At first sight, other attendees might have held me for a regular attendee, but when I talked to people, I always openly introduced myself as a sociology student who writes his master´s thesis on the topic of FE. I chose this open approach because I didn't want to pose any ethical concerns for my research. Also, I did not hide my intentions for being at the conference, as it would have been a covert or secret observation then (see DeWalt & DeWalt, 2011). To others at the conference, I made clear that the earth we live on is a sphere to me. Beforehand, I was not sure if people would be interested in talking to me because I am not part of their movement and because I am writing a thesis representing their standpoints. But surprisingly and positively it turned out that everyone I met at the conference was very open to talk with me about their worldviews in great detail. Not only this, they were also interested in what I am doing. Hence, making first contacts and finding conversation partners posed no problem throughout my time at the conference, also because people frequently approached me to talk about the event.

5.1.4. Participant Observation

My general methodological approach was participant observation over a four-day period of time. It is a strategic method for intellectualizing what is seen and heard, but also what is already known, then put into perspective and written about convincingly. Participant observation is a method to get a general understanding of how observed institutions, or in my research, movements, work (Bernard, 2006). It is an approach to "investigate, experience and represent the social life and social processes that occur in the setting" (Emerson, et al., 2001, p. 352). This includes not only observing the field but also to interact with

its participants in non-formal interview situations. Furthermore, I tried to attend as many speeches that were held at the conference as I could, since they constituted the main program of the two-day event schedule.

The study was a highly focused observation within my own (western) culture in a short period of time and can hence be classified as a *Participatory Rapid Assessment* (PRA). For this kind of intervention, it is recommended to have a clear question and only a handful of focus variables to work with (Handwerker, 2001). My research question was however more openly designed because part of it was to find out who the people at the conference are and what they are doing as part of the FEM, which was rather hard to pin down as a clear-cut question. I did have specific points and questions that I worked with, but those were situated more broadly then they were narrowly defined.

A core task of participant observation is writing notes and thereby not to neglect ordinary happenings and details about everyday interactions (for "explicit awareness" see Spradley, 1980). It is a production of texts that document the observed and mentioned events. Therefore, it was key for me to write a detailed research journal to keep my fieldnotes in order during the fieldwork. To write about situations is also a way of reflecting one´s own position in the research field, meaning that own emotions and reactions can and should be considered as well (Bernard, 2006; Emerson, et al., 2001).

5.1.5. Interviews

Participant observation poses a good opportunity to conduct non-formal interviews with participants in the field. I talked a lot to conference attendees in informal settings and either took notes or asked if I could record certain conversations, which never was a problem.

The venue was big enough for most of the speakers to have tables with books, flyers, stickers, posters, etc. about their programs. Which was a good opportunity for me to approach them at their stands, especially if I could not reach out to them before the conference. I interviewed almost all of the speakers at their tables where they could also present to me the material they brought to the conference. All of these interviews were recorded and leaned onto my interview guideline (see Appendix A).

The most formal interviews I conducted were semi-structured interviews (see e.g. Taylor, et al., 2016) with some of the speakers at the conference. My interview guideline served to lead the focus on their personal and professional ties to the community of flat earthers as well as their role at this year´s conference. It started with the question of how they got into contact with the conjecture that the earth is flat, to open

up on stories and experiences connected to it. Then continued with how being part of the FEM changed their lives, how they are contributing to the movement and their use of social media to spread content. The last questions referred to the speakers´ stance on the globe model, including why they think that it is so commonly accepted and their thoughts about the methods that established the worldview of a spherical earth. In between these open questions I took the time to ask about details on certain aspects of previous narrations. In sum, the semi-structure of the interviews allowed me to lead the conversation into my fields of interest on the one hand and left space for the interviewees to structure their thoughts on the topic on the other hand. Additionally, I was able to ask for more details when needed.

5.2. Data Analysis

I used the program *NVivo* to put together and analyze the material I gathered from participant observations and interviews. In total, I collected about 15 hours of audio recordings from interviews, speeches and a press conference. Four of the interviews were held using the semi-structured interview guideline and ranged between 30 minutes and a bit more than over two and a half hours. Those were then fully transcribed. The other interviews were only partly transcribed and otherwise summarized. Additionally, I jotted down several pages of fieldnotes in my research journal.

The four detailed interviews were held with Albert, Johannes, Isaac and Carl (names changed for anonymity) who were speakers at the conference. Albert, Johannes and Isaac are outspoken flat earthers who have been in the movement for about five years. Carl differs from them as he is not an outspoken flat earther who got introduced to the movement in 2018, as he was invited to be a speaker. I will refer to these four speakers after longer citations of their narrations in the next chapter.

For the analysis, I created a top-down coding structure. Meaning that I defined categories beforehand and assigned appropriate codes from the gathered data to them. The predetermined categories were chosen broadly to leave enough space for emerging codes and sub codes of all sorts (Creswell, 2013). They were based on a list of themes that I found to be key in my findings (Ryan & Bernard, 2003). The complete structure was modified and adapted throughout the coding process. This coding approach was more useful for me than building a bottom-up coding structure (see Belgrave & Seide, 2019) because I already had some ideas in which direction the data will lead me. The category system will be presented in detail in the next chapter with all its contents.

5.3. Challenges

One of the biggest methodological challenges was posed by the time gap between data collection (November 2019) and data analysis (February 2020), due to other seminars for my study program in between. Since the FEIC was the last big FE event in 2019 and future conferences will most likely take place in the second half of 2020, it was the only chance to gather my data there. Clear and precise documentation while gathering the data was therefore key to orient myself during the analysis. I can note that it posed no problems for me to find my way through the material again in February and am thus satisfied with my documentation.

Although ethnography is argued to be a good method for examining subcultures (Fine & Kleinman, 1979) and I would add for social movements as well, it is important to bear in mind that research on groups is always a snapshot of their existence. Which is even more the case in my study since I only spent a few days with FE proponents. It is possible to examine and evaluate past events and present days of the movement but due to the rapid changes and developments such groupings can undergo in a short period of time, outlooks can only be guesswork. This is however a more general challenge to lots of topics in social scientific research.

Additionally, even though I tried to attend as many speeches and talk to as many people at the conference as possible, there was simply too much happening simultaneously that I could have witnessed all of it. I met a few people on whom I could rely on for telling me about certain events I missed out on, but first-hand insight would always have been better. The only way to overcome this challenge would have been to attend the conference working together with another social scientist.

One last remark is that my study is America-centered. I already pointed out in the literature review that a lot of studies on conspiracy theories and the two studies specifically on the topic of FE use American samples. It would therefore also be interesting to find out about similarities and differences to, for instance, gatherings in European countries. The conference I attended was the *International* FE conference, but the attendees and speakers were mainly Americans. Doing ethnographic fieldwork at the 2019 *Globe Lie Tour* in Europe, for example, would have also been an interesting approach. It had however already ended before I determined my research focus.

6. Analysis

I will present the analysis of my empirical fieldwork in this chapter. It initially includes a detailed look into my code structure and the findings within it, for which I will also introduce theoretical explanations at times. The analysis will be completed by a thorough discussion between results, existing knowledge on the covered issues, and my overall theoretical approach.

6.1. Results – Code Structure

The code structure consists of ten main categories that represent the themes surrounding my findings at the FEIC 2019. Categories are the overarching topics of all codes within them combined, but their headings also represent the starting-point-/main-codes of each category. Those categories are (see Figure 3, numbers in brackets represent code and sub-code frequency combined): Conference (39), Conspiracy Theories (90), Entering Flat Earth (70), Experimental Practice (89), FEM (157), Models (187), Religion (74), Science (114), Social Media (61) and Trust & Distrust (37). Codes overlap at numerous points when their contents fit into more than one topic.

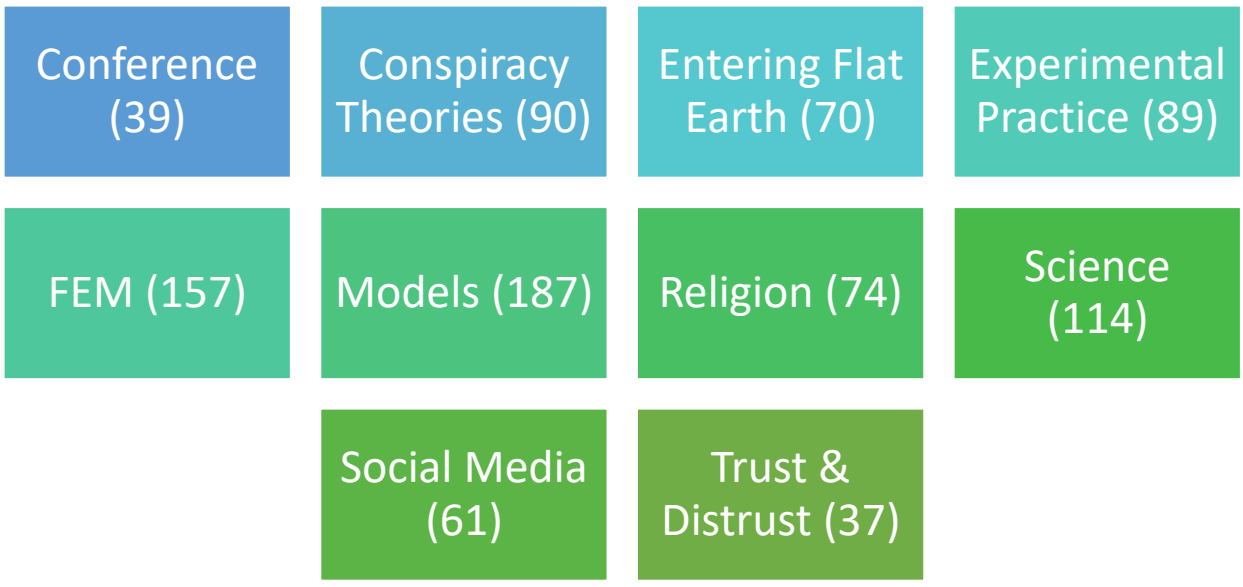

Figure 3 - Categories Overview

I will now turn to give detailed insights into my code structure. Again, numbers in brackets represent the coding frequency of the respective elements. Text in “quotation marks” refers to statements in interviews, text in *italics* refers to parts of my fieldnotes.

6.1.1. Flat Earth Movement (FEM) – A Distinct Group

The category FEM (see Figure 4) was used when I heard or observed characteristics about the current state of the movement and delimitations to other FE groups. Its sub-codes are Living with Flat Earth (43), Media (8), Mindset (28), Personal Experiences (9), Range & Reaction (20) and Positive Reinforcements (5).

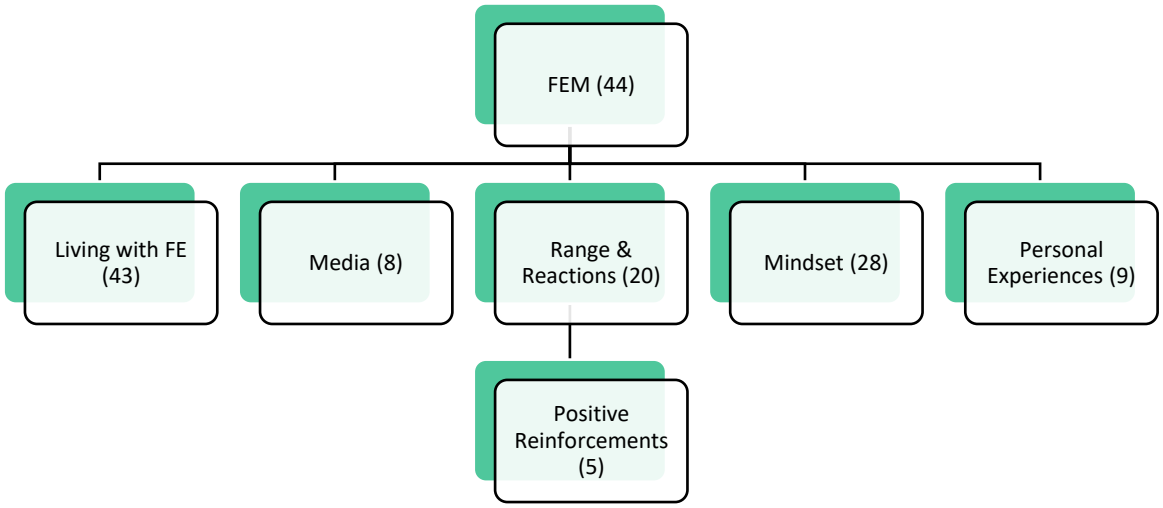

Figure 4 - FEM

I start with this category because my very first finding was a delimitation to other FE groups, especially the Flat Earth Society (FES); "None of us belongs to the Flat Earth Society!" was a phrase emphasized and repeated in speeches. The reason is clear, organizers and attendees of the FEIC *want FE to be taken seriously*, while the *FES are not flat earthers, they don’t have meetings or anything*. Additionally, the *FES is for disproving and creating jokes around FE*. The FEM on the other side has big conferences like the FEIC or the Globe Lie Tour but also *weekly regional meetups and bigger monthly* events. *The community aspect of conferences is underlined a lot* at the FEIC.

“This is a leaderless movement of independent researchers”, *they should be judged on their individual work since it can differ*. As part of the press conference, these characteristics of the FEM were especially important for some speakers to emphasize to media representatives, also in form of a flyer (see Appendix

B 1&2). The statements are clearly linked to being represented in the right way and hint that misrepresentation might be a problem for flat earthers more frequently than they would like. For instance, a *cruise to the 'edge' of the world or Antarctica is a rumor and Australia does exist for members of the FEM*. These points have been carried out because statements about flat earthers claiming the opposite can be found when looking into the movement. People at the FEIC clearly emphasized that the FEM wants to be taken seriously and downplayed the comedic origins of their movement. FE is associated with a variety of outrageous claims that would not let them come off in a serious way. Therefore, delimitations to other groups was a key issue, especially in front of media representatives, since they portray to the public what happens at a FE conference and what flat earthers believe in.

The rise of the FEM was mentioned by some speakers. Matt Boylan was however only rarely named, probably due to his low affiliation with today´s movement, although he was one of the earliest FE proponents of the current upswing, as Albert traces back:

"*Matt Boylan [is] a comedian and an artist. He is like a photorealistic artist, painter. Apparently, he got hired by NASA to do photorealistic paintings of earth stuff or planets or whatever. And so, the story goes, he was in a meeting with some of his employers and they got to talking over drinks or whatever and somehow flat earth came up in the whole thing and the space program is a big ruse and so that's why they´re hiring artists, you know and he´s like 'what?!' and so he started a whole comic routine, I think as far back as 2009*"

Thus, initiated in around 2009 as "Matt Boylan was doing comedy acts in public to bring this forward" it took a few years for FE to become more recognized and spread. Especially through online communication channels as "people started sharing stuff [established facts] that didn't make sense" until, "in 2017 it really started to get mainstream." Also, in mass media as for instance, *Rapper B.o.B. was a reason to get the topic into mainstream media* around that time. The movement´s rise was strong, and its proponents are now widespread as Johannes told me: "We have flat earthers everywhere […] A-listers, celebrities, men of power […] It´s just amazing the amount of people, cause it's just easy to get into it and it's a way of thinking." At this year's conference the *Flat Earth, Sun, Moon, Zodiac App was often promoted*. Currently, the FEM is however dealing with backlash as by the end of 2019 *YouTube stopped recommending them since twelve months already* (more on this in chapter 6.1.6. Social Media). "Ultimately, they´re gonna try to shut us down one way or another" Albert recognized, "we might need to have our own just exclusive flat earth YouTube-ish platform that nobody´s gonna censor us."

6.1.1.1. Conference Attendees

Although the description of attendees is a sub-code of the category Conference (chapter 6.1.7.), I will present it here to early on give a sense of the people I encountered at the event. Generally, the attendees were a very diverse group; male, female, old, young, etc. were all represented. There were also a lot of families with children at the conference, which I didn't expect beforehand. Mostly, the attendees were religious people as one of them explained to me that *some stop coming to the conferences because the focus is getting too religious. It used to be more 50 (religiously motivated) – 50 (generally into FE). Now it goes more into religion, probably because of the organizers.* One thing that parts of the attendees were upset with was the stand-up comedy show at the end of the first conference day. The comedian used politically incorrect and strong language, which especially the families with children didn't appreciate and the organizers apologized for the comedy act the next day.

Apart from flat earthers I also spotted and talked to some of the media representatives at the conference. For example, *conventional US news reporters, two Brazilian news reporters who were at the Brazilian FE conference before, and representatives of the YouTube channel 'all gas no brakes.' They generally agreed about the fringe character of the topic and their surprise of the current upswing of the FEM.* Furthermore, there was *a director at the conference who is filming a documentary about FE.* Lastly, I met a few people who were not affiliated with FE in any sense but wanted to see the movement for themselves. Such as a *chemistry professor who was interested in why people would come to the believe that the earth is flat*, as well as a *nutrition expert who had the time to be there and decided to check out the event.*

6.1.1.2. Consequences Of Becoming A Flat Earther

Consequences of becoming a flat earther includes people´s experiences, (social) consequences and life changes since they committed to FE. As a life changer, experiences were described differently by people at the FEIC. For example, one of the attendees told me that *she got inspired by the off grid living of one of the speakers*. She *has been traveling in a van for three years and now got an RV.*

The speakers also carried out on life changes through FE: "This is what I do now, 24/7 […] I didn't wanna do this and this is what I do now, for the last four and a half years […] I talk about flat earth, I write books, I do interviews, I make videos and my life is completely different" Johannes put it, adding "socially, it´s different. I have different sets of friends; I have different sets of people that I date". Another speaker mentioned that *he got sued (for 15.000 Dollars) for publicly talking about FE by a programmer who wrote earth-curvature software. The speaker however won the case and didn't have to pay*. Some of the speakers

already held sizeable amounts of public audiences for previous work in their lives. Albert commented on life changes through FE: “It´s not been a fun road […] when I started to look into this, a huge percentage of my older crowd said ‘that dude went crazy’ and years’ worth of research and struggling to get to where we were basically went down the toilet […] all of a sudden, everything else I´ve ever done is called into question.” Others, however, perceive holding on to a FE worldview as inspiring: “I´ve saw people that had serious conviction, that’s what changed me about the people that are part of this community. How why you wanna be a part or even associated with this. Because I saw people that had a willingness to stand on what most perceptions would say, the definition of an idiot is like a flat earther.” Reactions from the social environment of attendees as well as speakers for becoming a flat earther also relates to the issue that FE is widely not taken seriously due to allegedly outrageous claims, which again, do not have to be supported by members of the FEM but are rumoring in connection with FE.

Furthermore, at a speech the listeners were asked for how many years, they are holding on to a FE worldview now, *almost all of them believe in it between one and three years, four and five years not so many and only a handful for six years*. Regarding the current upswing of the movement, one to three years is a plausible time to be in the movement for most of the attendees of the FEIC, since it was about three years ago when the topic became more publicly recognized and mainstream.

Reactions from friends and family (more on external reactions in the next section) were described differently at the conference. For example, one of the attendees told me that *her friends and family humor her for believing in FE but don’t exclude her*. Other than an attendee who told me that *his girlfriend broke up with him, his family thinks he went nuts and he lost 40% of his Facebook friends* after he committed to FE.

An applicable concept for the life changes a commitment to the FEM brings with it are the social costs of conversion (Gross, 2012). Although Toomas Gross investigates into conversion to a new religion, the concept can still be used here since there certainly are parallels. The main point of the argument is that conversion can sometimes cost a lot in the life of a person. For instance, converting to a religious movement that does not permit drinking alcohol might cost some friendships or as some movements do not allow to celebrate Christmas or birthdays (such as the Jehovah’s Witnesses) the cost of converting might be a strained relationship to the family. For flat earthers, the high cost of ‘converting’ or committing to the movement is connected with the widespread negative public image of the FEM. This lead FE proponents to lose social contacts on the one hand, but on the other hand their commitment to the movement also introduces them to new networks which at least partly make up to their old ones.

6.1.1.3. External Reactions

This code holds references and reactions from externals, such as the media, friends and family, to the FEM. Generally, as it is an intriguing topic, *the media jumped on the viral FE trend to get good numbers*. But news coverages of incipiently unrelated events were also interesting for flat earthers to comment on. Apart from the appeal to report about people with very unconventional beliefs, sometimes in a humorous way, some news reports focus on the potential threat of the current FE upswing as Johannes proudly pointed out: "National geographic was so scared. They asked me […] 'is it possible that you could be leading the world into the new dark ages?'" There was a sense of pride in his statement because the FEM´s opportunity to challenge established institutions is celebrated by the movement, as I will explain shortly.

Connected to the popularity of FE over the recent years, Johannes explained: "It was getting into new demographics, that's how it kept spreading […] flat earth does as well as it does because it keeps jumping into different niches to where now we´re almost everywhere" furthermore "we resonate and now of course our big leap is with the younger kids […] they´re more pliable than older people." Albert additionally pointed out: "The fact that we have actually got congress and Google on the run […] they´re like 'hey we gotta do something about this' I think this kind of gives the community a sense of pride and accomplishment and empowerment. Like 'wow, we´ve taken on Google" although, other than National Geographic sounded like, "we´re not threatening anybody […] we´re just putting forward an idea that they think is so dangerous that they gotta censor and squash us." To "fight the power", FE seems especially appealing to some and as "flat earth is becoming fashionable […] we might start seeing possibly more subject matter experts coming out that feel safer to come out now."

Ultimately, the stage, range and reactions FE brings up for people, positively reinforces members of the FEM. Albert explained "I´ve never seen anything have that kinda response […] I guess it makes sense because you´re challenging everything you think you know. But that tells me that's why it has to have some legitimacy to it. If it didn't, nobody would care. Why would Google shut you down? Why would the government care?"

Generally, external reactions on social media are mainly negative comments: "You´ve seen the comments in flat earth sections probably. The comments are brutal, just brutal"; "there´s a lot of trolling and negative comments" or "you want some feedback 'hey what do people think of it?' But 9 out of 10 comments are 'you suck! Don't breed! I hope you die!' […] you spend all day fighting or you spend all day depressed or whatever […] if you´re just getting into this, you gotta have to get a tough skin really quick", three speakers narrated respectively. If flat earthers get into fighting, their social media image gets a certain look: "literally

95% of my comments on Facebook are reactionary. And the problem with that is, if you´re just kinda randomly popping by my Facebook page, you have no idea of the context […] you just think 'this dude´s an asshole, what´s his problem? Like he´s got issues.'" Others would "only" be ridiculed online instead of receiving vast insults, but an attendee told me that *he doesn't mind being humored online because people are making fun about the truth*.

Apart from the struggle of social media arguments and the probability of losing friends through committing to FE, the positive reinforcement that members of the FEM felt was frequently expressed and observable at the FEIC. It was when media, scientists or simply the public address the topic and engage into discussions, even if they say they hate FE or get offended by the thought of it. Again, FE proponents´ argumentation was that if this topic can cause so much tumult around it, there has to be some truth in it.

6.1.1.4. Mindset

During the course of the conference, the people I met often explained to me why FE makes sense to them. I would pick up phrases from all around that hint to a certain mindset flat earthers take to approach the topic. Those phrases were: *Think outside the box!* Or, *I started examining the world with my own eyes*; "the conclusion is easy to make, if you are willing to make it […] it´s eye opening common sense" or "don´t just take what people say for granted." For flat earthers, this way the truth can be unveiled. As Isaac commented: "This is a very real community of truth seekers and they´re opening to whatever we can learn about truth", furthermore "the people that now understand the truth […] they went through that journey with us […] it was very instrumental and bringing them to this kind of knowledge and not only this but to be considering other aspects of truth, which they may never have examined previously either." Hence, the collective approach, often firstly achieved by personal realizations, to get to an understanding of the world was highlighted as key for the movement.

6.1.1.5. Entering Flat Earth

I add this category (see Figure 5) into the overall category of the FEM since entering the movement is very much linked to its characteristics. Its sub-code is Doubting Aspects of Everyday Life (17).

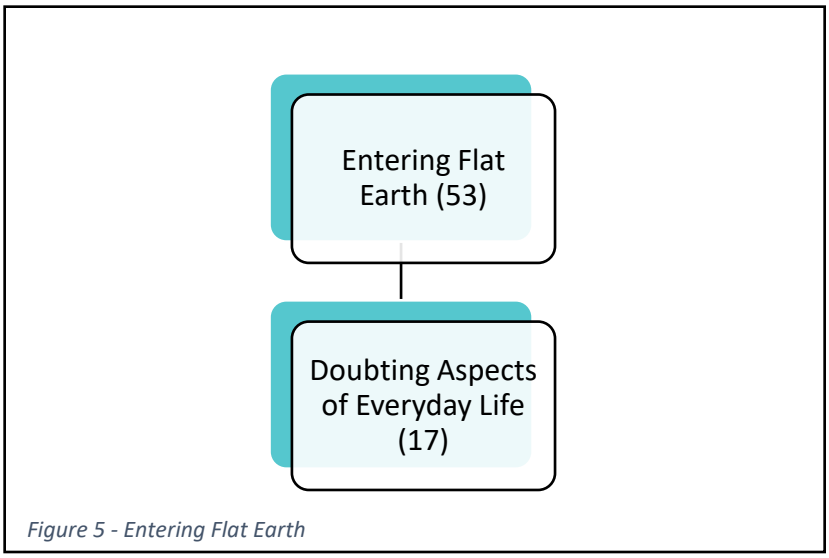

Figure 5 - Entering Flat Earth

As already mentioned, and as will be elaborated in more detail a little later, FE beliefs are intrinsically linked to conspiracy theories, for instance about powerful elites hiding the true shape of the world from the public masses. A prevalent way of entering FE for attendees of the FEIC was through already believing in some other conspiracy theories. Thus, several people at the conference stated that they would have *believed in regular conspiracy theories before*. For example, one respondent explicitly explained how the belief in other well-known conspiracy theories have paved his way for believing the earth to be flat: "I actually had a head start. I had already known 9/11 was an inside job, I knew Sandy Hook was total fake, the moon landing did never happen. I already knew that, so I was already prepared for the big one."

Most of the people I talked to mentioned that they were introduced to FE specifically by someone else. One of the attendees *heard about it from a guy in Ecuador during his vacation*. A speaker mentioned that he was casually asked by a friend "you ever wonder how water bends? […] Think about that the next time you look at the Pacific Ocean on a globe." Hence, there are two kinds of factors for people joining the FEM: (1) Cultural factors, meaning that they join the movement because it culturally makes sense to them due to their conspiratorial mindset. (2) Social factors, meaning that they join the FEM because they know someone who is associated with the topic and suggested a certain aspect of it to them. Again, literature on the issue of converting delivers similar explanations for why conversions take place. Henri Gooren, for example, summarizes five groups of factors for conversion: personality, institutional, contingency, and the two most relevant for my case, which are the above mentioned social and cultural factors (Gooren, 2010).

Furthermore, everyone I talked to said that they opposed FE in the beginning: "My first reaction was: that's stupid" or some *would make fun of flat earthers in the first place*. But what was consistent was also that this idea, which was casually thrown in by someone else in conversation, would not let go of them: "It was like a seed planted in my mind" or "it was one of those questions that like rattled around in my head and

it just annoyed me" as two speakers respectively put it. Mostly however, they thought that this was something, they could easily disprove for themselves: "I honestly thought I could blow it away in a weekend." But, *a lot of people mention the 'rabbit hole' that you start looking at/going into, for doing research on the topic*. Furthermore, as one of the attendees put it "there may be a lot of rabbit shit down there, but you gotta work through it." Meaning that they would not like what they found but it changed their way of seeing the world. For instance, one of the attendees could *see from the coast all the way to another island, which he was not supposed to, according to what he was told:* "That was when I realized I have to question everything." Latest at this stage, people would check the internet and often find Mark Sargent´s, Rob Skiba´s, Eric Dubay´s or other people´s content on FE and would get convinced step by step. "I am a hunger for information person but also listening to information channels that are talking about the fringier topics out there", Carl emphasized. Eventually, "people that get into flat earth […] they spend about 2 weeks, the average person, you can ask any of these people, 2 weeks just straight […] they´ll be watching all hours a night because they can't get their head around it, they can't finish it, it's a riddle they can't solve. And by the time they´re done, they give up." Apart from researching the topic online, many would turn to their faith during that time: "It was like the second or third thing I did was 'okay what does the bible say?' (more on this in chapter 6.1.4.2. Creation & Religion). Hence, even though FE was something many would not take seriously in the first place, they would ultimately commit to it after researching into the idea, which for most takes a minimum of two weeks. The above carried out reflections take place before the movement´s later proponents enter into it, but usually soon after they get exposed to an arbitrary FE related question or explanation.

Jonathan Potter delivers a concept for such argumentations of commitment, namely stake inoculation (Potter, 1996). Stake inoculation is a way of constructing descriptions to "head off the imputation of stake or interest." (Potter, 1996, p. 125). In other words, it's a prevention for the potential undermining of a person´s account. Counter-interests, or factualization devices (Georgaca, 2004), are thereby presented to build up credibility not to be undermined as interested in a topic and to argue for having a rational approach on it from the beginning. Stake inoculation is a common way to counter-describe initial interests (Potter, 1996) and an understandable reasoning to discard FE at first because flat earthers are widely regarded as out of their mind. Johannes for instance still stated: "I wake up every day trying to destroy flat earth", hating it from the beginning but "even now, every day I fail [to disprove it]." With this approach, proponents are guarded against subsequent argumentations like, 'you believe it because you wanted to believe it.'

Flat earthers frequently told me about doubting aspects of everyday life when they were entering the movement. Facts that were previously taken for granted, were suddenly not anymore and things they never thought about were sought after. Then, questions like *why does water know where to stay, why doesn´t it fall off somewhere?* would arise. Or, "when you´re wailing into knee deep water, does gravity loosen up? Like how does it know? These were the questions- I´m like lying awake at night thinking like 'that doesn't make sense'" and lastly:

"*they say that the moon causes the tides. So, again I´m thinking about the weight of water. I´m like 'how the heck does the moon that has 1/6th of the earth's gravity and it´s over quarter of a million miles away, how is it pulling the oceans and yet my 175-pound body isn´t flying up into the sky?' Like I mean how can it pull the ocean but it´s not bothering me? And how do bees and birds and butterflies fly? It´s like, what the heck, like I thought I know stuff and I don't know anything*" – Albert

Therefore, when getting into FE, later proponents called into question what was trusted before to have sound explanations. But when they would question them, the explanations would not make sense, leading to a radical rethinking process of what was taken for granted before.

6.1.2. Trust & Distrust

Trust & Distrust (37) is a category that mainly mediates between other categories and delivers a suitable transition from doubting aspects of everyday life. The code was only rarely assigned alone to parts of my data and hence created a link to a lot of themes in the analysis, but no sub-codes.

In general, people at the FEIC tended to distrust in various institutions and organizations. It is part of their outside-the-box-thinking and should make clear that we are drilled by indoctrination to believe in the globe model throughout our lives (more on this in chapter 6.1.4.4. Globe). I for instance noted: *What brings people here: Realizing the lies, deceptions, etc. People realized that they have to discover on their own*. Starting to distrust in major institutions triggers a chain reaction, as Johannes pointed out: "it's kinda like the jilted spouse argument which is once you´re burnt by your spouse […] you don't trust them really ever again, not completely […] if once you have one government organization burn you or you think there is an issue then [it´s] that slippery slope which is 'okay it becomes bigger and bigger.'" One of the most distrusted organizations for the FEM is NASA (and other international space organizations but NASA was mainly mentioned since it is the American space organization – I will come back to NASA in parts of the analysis since it was a well-discussed organization at the conference). If their reports about space are

merely make-believe, which they are for flat earthers, then “they are in for trying to hide the whole world in itself.”

The development of trust in western societies was addressed by two speakers, starting with the example of “Santa Claus, you totally believe it until that certain age where [there is] the big reveal ‘oh no it´s really us’ […] the people you trust the most to tell you the truth, they lied” furthermore “your parents, that you trust, […] make you go to this institution called school every day and so since you trust your parents and they put you here that means that person in the room must trustworthy cause my parents trust them and put me in front of them […] parents, school, government, institutions, news, NASA. They kinda go down the line.” This way, for flat earthers, everyone easily gets deceived, starting by being lied to in early stages in their lives but still continuing to trust in the institutions they are presented. But who is to be trusted then? The answer for flat earthers is clear: oneself. “I started looking and not just listening […] what the government said, listening to what my teachers said” a speaker carried out.

I will present further examples for trust and distrust within the FEM by introducing my results further, since there are a lot of links to other categories.

6.1.3. Conspiracy Theories

Especially conspiracy theories are interesting after looking at trust and distrust issues. The category was straightforwardly used when conspiracy theories (see figure 6) were talked about. Its sub codes refer to more details on Conspirators (3) and certain branches where Conspiracies (10) are supposedly happening. Specifically, 9/11 (4), JFK (5), space missions (12) and vaccination (5) were discussed.

In general, conspiracy theories were to be heard all over the conference. *The Globe Lie* [establishing the world as a sphere] *is basically linked to deceptions and cover ups for economic, political, scientific, etc. reasons.* The ultimate proof of the earth being a sphere, delivered by the space program, was named to be a white lie: *Around 1950, when officials found out the truth of the dome sitting on top of the earth* (more on this in the next chapter) *they had to cover it up because they were already too deep into the lie.* It means that NASA is the organization founded with the order to lead the cover up. Additionally, *the government spends money, millions and millions of dollars, for NASA which go to people involved in the conspiracy, they are controlled by bigger firms behind the space organizations*.

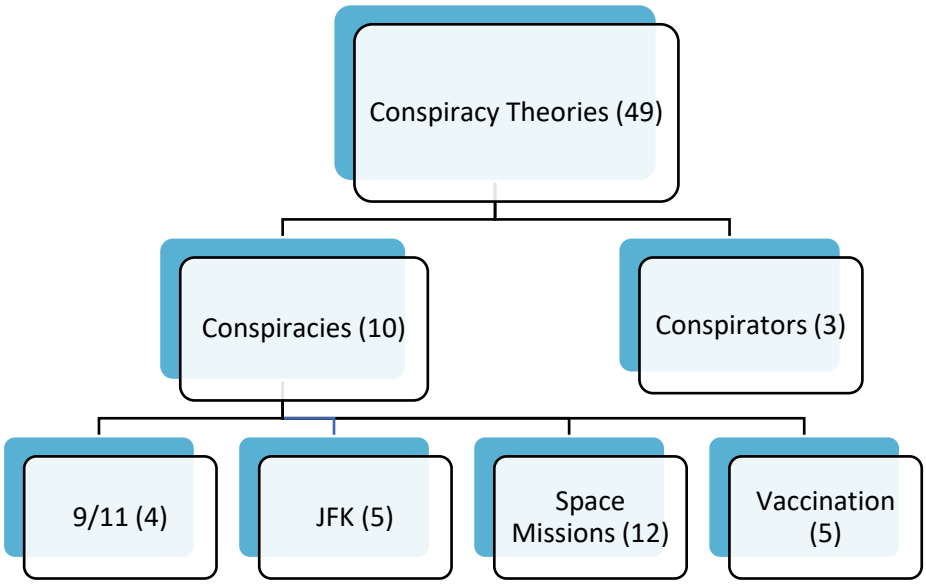

Figure 6 - Conspiracy Theories

The conference proved to be an exchange place for conspiracy theories. As I started talking about FE with an attendee, others came by and joined in on the conversation. *Quickly, they exchanged all sorts of theories/information, without calling them conspiracies, it seemed like an exchange of news in the conspiracy world for an outsider like me, but for them it was like a 'regular' news exchange*. Generally, the word conspiracy was used in different ways by people at the FEIC. Some attendees and speakers would use the word frequently, as Johannes pointed out: "I absolutely use the word conspiracy. It amazes me that the media is highly discouraged from using that term […] when they use the word conspiracy it's that 'conspiracy people, conspiracy nuts, conspiracies that we shouldn't believe in.'" or an attendee told me "some of the underlying conspiracies, personally I see as conspiracy facts." Others were more averse towards the term and preferred to refer to the word "controversial" or "information […] which are unfiltered or unchecked or unbiased and condemned by corporate media and propaganda and that kinda control." Furthermore, Carl reflected on the term:

"The phrase conspiracy theorist was one phrase that was orchestrated by individuals within central intelligence agency to try to disseminate an idea of dismissing people that had theories that were against the narrative that the Kennedy assassination happened by one man who is crazy and acted alone. So, that's were that phrase came from and that's were that public conception tends to be of conspiracy. I use it strategically if possible."

Hence, standpoints towards the word conspiracy (as well as -theory or -theorist) were different, but its negative connotations were clear no matter if used or not, because "it's false to be that way [into

conspiracy theories] because you´re not supposed to know." If someone was not using the word, it is for them more of a strategic way not to be considered insane right off in a conversation generally. Again, as a news exchange at the conference there was no need to state that any information contains conspiratorial content.

The reasons for why conspiracies are happening were named to be money, power, control and competitive nature tied to it. "It´s always about some higher power, government secret society that's making decisions without the consensus of the general public, happens all the time, you know, what you don't know won't hurt you" as well as "Money changes everything" or "power corrupts, and absolute power corrupts absolutely." Personal experiences would be mentioned as an eye opener to see conspiracies happening: "I called that my hook in the jaw moment. A moment where you´re kind of swimming along the normal life and everything´s kinda fine until suddenly it´s not. And suddenly like the world is far darker at times than we realize and that kind of behind a veil of ignorance. There´s people that operate behind those scenes and are going to profit off of compromise, profit off of criminality" Carl explained. Thus, such eye openers in many cases do not have anything to do with FE in the first place but can ultimately lead to the FEM which delivers answers on how to see the world.

The reason why conspiracies are working is because they only need a lie in the first instance, successors then "pass on the lies like they were absolute truth, [at that point] nobody´s lying anymore." For example, workers at NASA might think they are working on space related content because they were told so by their superiors. The superiors furthermore do not even have to know the truth about it themselves because the actual conspiracy goes back in time long enough.

Which conspiracy theories to believe in and which not is up to personal preferences. Johannes described "what makes a good conspiracy for me is if I would have done it the same way […] did the ends justify the means? And, was the greater good held? If I look at a conspiracy and I say I couldn't improve on it, if I would do the exact same thing, then yeah, it's probably real." In this view, the sinister motives behind a conspiracy do not play so much of a role because conspiring is something understandable, given the circumstances. Carl explained "the word conspiracy to me is something that is in active reality for any of our lives. That we ourselves can conspire together to do certain events sometimes to achieve our own gains. And that is nothing unusual nor do I think it´s being dangerous." Again, evil intentions behind conspiracies therefore become secondary. The world of conspiracy theories furthermore leaves endless room for recognizing possible deceptions, "it's a slippery slope to where when you´re full blown into conspiracies, after a while you question about everything that comes up in mainstream media and why

wouldn't you?", Johannes put it. An attendee fittingly added the thought behind it: "If these people are going to deceive us in a small way, they could deceive us in this massive way." The jump from one conspiracy theory to another can ultimately lead to "a new thing out there that people are doing, it's called auto-hoaxing. That means that you believe every story is fake […] its automatic hoax until you prove otherwise, why would you believe it? And honestly, it's not a terrible way of thinking."

6.1.3.1. Conspirators & Conspiracies

Conspirators as masterminds behind conspiracies were often talked about at the conference. Those wiredrawers were mostly referred to as either the *puppet masters* or simply *they*. "They have lied to us about JFK, nutrition, healthcare […] they made science a god." The puppet-master-argument is key in conspiracy theories. Since conspiracies are supposed to be secret plans, we might know the puppets, the *people of power such as politicians or corporate businesses,* but we do not know who is in the instance above them. "True power means you can´t be public about it. If you´re the puppet master, you cannot be the puppet at the same time because you can´t be overthrown if they don't know who you are." Thus, "nobody can agree on who is at the highest level" and conspiracy theorists can only connect their clues to certain points. Since there is no clear answer to who is pulling the strings in the conspiracy world, even though it could be argued about and certain potential puppet masters identified, it is easiest to refer to them as *they*.

Also, exchanges about parts of everyday life that supposedly involve conspiracies as well as specific conspiracy theories were to be heard at various times. War and politics were well discussed topics for conspiracy theories, *just about any American war holds conspiracies.* But speculations were also traced back to *Adolf Hitler being still alive, living in South America* and Angela Merkel being his granddaughter: "I saw a picture of a little girl next to Hitler and I can´t prove it but my best guess would be it´s Angela" one of the attendees put it. Sports is no less prone to conspiracies according to Johannes: "when there´s enough money involved any sport can be compromised."

I already mentioned two very prominent conspiracy theories at some points which are surrounding the terror attacks of *9/11* and the assassination of former American president John F. Kennedy (*JFK*). They were mentioned as prime examples for conspiracies. Furthermore, anti-vaccination was carried out from time to time in sentences like *I never had problems even though I never received a vaccination* and *vaccines cause autism*. More related to FE however were conspiracies about space missions. A frequently mentioned conspiracy theory was that *the moon landing did never happen*. Which was named to be *one*

of the easiest conspiracies to be understood. Explanations range from *they couldn't have had the technology for certain missions, especially in the 60s and 70s; space visualizations are merely paintings* and "the big logistical problem why you would never ever actually send a mission to the moon, […] if you screw up you all of a sudden turn the most visible eye object in the night sky into a tombstone and it would be forever remembered." Lastly, the reason why almost no one questions the space missions is because *there is very little public understanding about physics* and hence footage from space is widely trusted to be real, *the public buys it and NASA gets away with it*.

6.1.4. Models

The space missions constructed a modern day, established picture of how space as well as earth look like and work. This category (see Figure 7) holds explanations and questions about models of the cosmos and earth within it. Its sub codes are references to the Flat Earth (FE, 29) and the Globe (20) model as well as explanations of people who are Sceptic (5) about the shape of the earth. FE holds the sub codes Ancients & Scriptures (37), Creation (25) and FE books (5). The sub codes of Globe are Delusion (10) and Indoctrination (21).

The code Models (35) holds general explanations of phenomena, standpoints and comparisons between different models to explain the universe and earth. No matter if people at the FEIC fully believed in the FE model, were sceptic about the true shape of the earth, or *sometimes disagree on specifics, in the end they are all somehow on the same page at least through the connection of not fully believing in the globe model*. When FE was compared to the spherical earth, its simplicity was frequently emphasized: "here is a version of this [holds up FE model] which is easier now to explain than this [holds up globe ball]" or: "These are approximately the same size, right? [small globe and flat earth model] yet this one can't exist on its own [globe ball], this one needs a sun and a solar system around that and a galaxy around that and so on and so on. It needs trigonometry and calculus and quantum mechanics, all these wonderful things, right? This [flat earth model] needs none of that, doesn't need anything. In fact, that's all it needs."

Phenomena were often mentioned to work on both, a spherical and a flat earth (more detail on this in chapter 6.1.5. Experimental Practice). For example, "Magellan traveled west and came back around to the east, it´s like, well that works exactly the same way on a circle as it works on a ball." Together, the conjecture that phenomena would work the same on a flat as they work on a spherical earth, combined with the simplicity of the FE model, makes FE convincing for its proponents. Simple models are easier to comprehend.

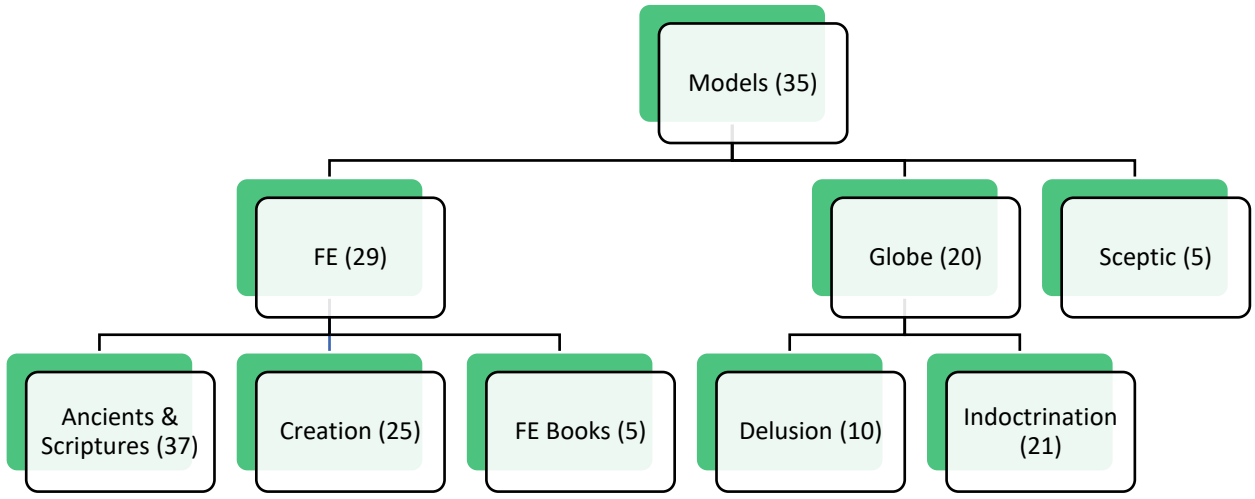

Figure 7 – Models

6.1.4.1. Flat Earth

This leads me to how the FE model is built up. First of all, there is no general consent of how exactly FE is structured. Again, through being a "leaderless movement of independent researchers" there is no manifesto everyone in the movement has to subscribe to. *FE is a continuation, not a resurrection*, as I described in chapter 3, because the experimental practice of the movement goes back to the mid 19 hundreds. A reason mentioned for still not having one model everyone agrees with was that the current upswing, which is marked by new technological possibilities to research into it, only emerged a few years ago and *there is still a lot of time and resources needed to look into it*. NASA was frequently referred to for having had *more than 60 years of time and millions of dollars to establish their model, hence FE will also need more time than a few years for clarifications*. Although there is no clear-cut model, I can present on which characteristics of FE most of the attendees and speakers at the FEIC agreed upon. It holds earth´s surface as a flat disk with a dome enclosing the structure. The sun, moon and stars are within the dome and thus closer and smaller than publicly acknowledged. What possibly lies beyond the dome is unclear since nobody ever managed to get past it. *Antarctica is a key place for flat earthers*, because according to their model, it is not the most southern continent of the earth but an *ice wall encircling the flat surface*. What lies beyond the ice wall is again unclear because it is a place that is hard to reach and explore for ordinary people. Some however suspect that *it could be possible to enter other realms at certain points of*

Antarctica, meaning that the plate of the earth would be way bigger than expected. Isaac pointed out that the FE model holds big differences for the understanding of the cosmos as well: "if there is no curvature, there´s no rotundity, if there´s no rotundity then the earth is not a ball and whatever we think of the solar system has to be reconsidered." I already mentioned that the sun is way smaller and closer in a FE model. Another characteristic of it is then however misunderstood according to Albert: "Everybody says 'flat earthers believe the sun acts like a spotlight.' No it doesn't act like a spotlight […] it acts as a point light […] that throws out light in every direction just like you already believe the sun is, it´s the same thing only smaller […] now presumably if it´s under a dome that means there´s some reflectivity coming down also."

So far, there is one FE model builder, who was present at the conference. *Since there was no physical working model of FE, he decided to build it. At his stand there were a few FE models* (as for example shown in the Methods chapter in Figure 2 - i)*, varying in size, sun and moon movement, star constellations plotted in the dome, possible openings at the Antarctica ice wall, and maps used. For him, the heliocentric model never made any sense*, but "this makes sense for me. Everything works here. Eclipses, everything."

One difference between varying FE models is not so much the model itself but its origin. While the majority of attendees and speakers at the conference held religious beliefs of creation (as I will explain in the next section), there were also some who argued that FE does not need a creator behind it. *According to this view, it would be that the big bang created the world as flat*.

The code FE Books holds references to the books I already introduced in my Literature Review and I will only mention it here since it was an unfrequently used code. What links the FE books from the 19th and 20th century to today's movement is that their approach is still mainly scientific as well as religious. For the contemporary FEM it means that most of the FE explanations are done in a mixture of scientific and religious fashion. But also, that there are flat earthers who only use scientific explanations as well as there are some that only use religious explanations for it.

6.1.4.2. Creation & Religion

Most people at the FEIC mentioned FE to be created by a higher being which was mainly directly referred to as God. At several speeches I noted down: *creationist focus; starts the speech and links it to the creator; supernaturality and link to creator (in a religious fashion)*. There were however also a few speeches where *a creator is mentioned but only thrown in at a point, not carried out in detail and the speech is generally not religiously motivated*. For most of the people at the conference it was however clear that "this place

makes no sense without a type of creator creating it." Furthermore, due to its composition "an enclosed system shows protector […] a provider, it shows someone that built with the intentionality and system for people to thrive on." A FE structure that was often subscribed to at the conference was that *we live on the plate, above it [at the top of the dome] there is heaven and below us, there is the underworld*. Hence, "if this model is true then the creator is a tangible, localized entity, very close" and "if all the worlds are here then we have purpose here and there´s meaning here and there´s a plan here. There´s an orchestrator of this", as two speakers respectively put it. I mentioned previously that government officials, working together with space agencies, allegedly already found out about the dome sitting on top of the earth but still intentionally hide it from the public. If they found out we are in a cage, they would have realized that "somebody built this place" and "If somebody built this place, who is it and what's going on here?" was what government officials tried to figure out. For most people at the FEIC the creator can only be God and high rank elites know this.

Although Religion (see Figure 8) is a category on its own, I will join its results with this section because of their thematical similarity. Generally, when people talked about religion at the FEIC, there were a few different approaches used. Attendees and speakers mainly argued for their personal superhuman or spiritual experiences that are not tied to religious institutions. For Albert, spiritual "experiences […] radically increased in amazing, fun and cool ways" since he devoted to FE. Another speaker told me that *it´s not about religion, it´s about a personal relationship with God*. *A lot of this conference is about the relationship with God*. Carl carried out:

"I am a man of deep faith and convictions […] I´m not religious, I don't go to a church, I don't have a checklist of activities that I do that would show I´m a religious man but I´m a man of deep convictions in the faith that I found, absolutely [… because*] I was born in the church, I´ve spent my whole life in the church […] And I saw the church get turned into a good business."*

Another speaker explained that *to him the conference is not about proving the earth to be flat, it is about the shape of humanity. Ultimately, we have to realize God as the orchestrator of the world*.

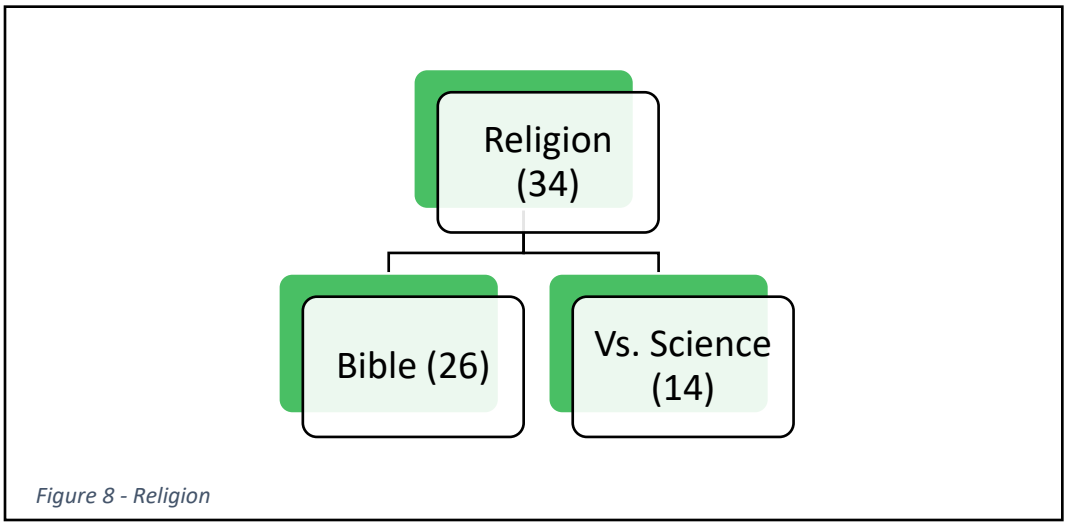

Figure 8 - Religion

If there was a religion that attendees and speakers subscribed to, it was Christianity. At the press conference however, it was emphasized that, *it is not a religious movement but in general any denominations are welcome in the FEM.* Albert noted that "it´s just an interesting side effect of the movement is that once people started realizing what this place is you understand there has to be a creator." Hence, a lot of speeches had a creationist focus, which led one of the listeners to the question *if he, since he is an atheist, has to go back to the bible to explain FE. He was assured that he doesn't have to be religious in any sense to be part of the movement*.

FE initially lead Albert to admit that "I think it would be legitimate to say I went through a crisis of faith" because FE and a biblical worldview seemed to contradict each other at first. But ultimately being able to bring them together lead to a reinforcement of faith "from a spiritual perspective I would say it´s probably closer to God than it already was. And I would say I was pretty close to begin with [… now] it´s a closer relationship, it´s a deeper one."

6.1.4.2.1. Bible vs. Science

A reason for the majority of people at the FEIC to commit to FE was to legitimize it through the bible. "The bible is a flat earth book, cover to cover" was a prominent phrase at the conference. "The key is to read it literally" as many speakers and attendees take it as a 100% factual book, they "trust the bible as a foundation of truth." Taking this starting point let them find argumentations for *geocentrism, as well as a fixed and stationary earth*. But one biblical phenomenon/object was most discussed, *the firmament which is taken as the biblical explanation for the dome sitting on top of the earth*, "3- 6 verses into the bible you hit this thing called the firmament […] you read a few verses later and it says that God put the sun, moon and stars in the firmament" hence "the bible is telling us that we´re in a snowball." According to many people at the conference, lots of other ancient scriptures (which are dealt with in the next section in more

detail) also hold references to the earth being flat and its dome/firmament: “another topic that kept coming up was the firmament. In the ancient scriptures, they describe the firmament as being a solid structure and that it sits upon the circle of the earth and covers everything over in a dome.” Eventually, “if you would take the biblical narrative to its final conclusion there will be a time when everybody´s gonna believe […] if the biblical narrative is true then there´s gonna come a time when the firmament opens […] and then we see what´s on the other side. Nobody´s gonna be an atheist at that point, everybody´s gonna know.”

A religious and biblical narrative was frequently used to argue against conventional science. Both argumentations for phenomena were put in direct comparison, for example, *stripes in rocks should explain how old the earth is? – The bible says its 6000 years old*. The reason for trusting in the latter explanation was often mentioned to be that religion doesn’t need hard to trace back, expert knowledge on matters, it is self-affirmative.

The argumentation between science and religion also frequently lead to the origins debate. It was emphasized that if we want to trace back the origins of the world “you ultimately say, ‘yeah there must be a creator somewhere here.’” It was not so much arguing against the big bang but rather predicting that *science will come to the conclusion that ancient aliens have created us*. For the decision between believing in ancient aliens and God, the latter was named to make more sense, arguing that “God is a designer, he designed the world as we know it.”

6.1.4.3. Ancients and Scriptures

At the conference ancients and scriptures were frequently referred to for delivering FE proofs. A noteworthy part of speeches dealt with *ancient records of enclosed cosmologies such as Hindu, Celtic, Mayan, etc.* “Virtually every culture for over 4000 years had the same model. I mean you can look at the native Americans, you can look at almost every European or Mesopotamian or Egyptian, like they all had the same thing.” But also, *thousands of years old records of star constellations being in the same place as we see them today was an argument made to negate an expanding universe and movement of the earth*.

Many attendees knew a lot about old religious scriptures and a few speakers were experts in studying those with some writing books about them. Isaac told me: “my personal contribution to the flat earth community is that I have been a scholar for decades now of the ancient manuscripts. You see from all the

books that we bring forth." But the scriptures do not only lead people to FE, FE also changes their view on certain texts:

"there was a portion of the book of Enoch […] it´s called 'the book on the courses of the heavenly luminaries', which I was never able to understand and that always bothered me […] After I came to the revelation that the earth was a plane and that the luminaries, the sun included, were moving in circle above the face of the earth […] he was describing a circle […] the movements of the sun between the Tropic of Capricorn and the Tropic of Cancer and that it is the movement of the sun back and forth between these two points that creates the seasons." – Isaac

Therefore, a FE worldview helped flat earthers understand certain scriptures as well as "ancient narrative [was] showing […] 'look, they weren't alone' everybody believed the same thing too."

6.1.4.4. Globe

FE was the topic of the conference, but it inevitably lead to the theme of the opposed and established model, the globe. In the literature review chapter, I pointed out that the establishment of the globe model can be traced back to the ancient Greeks. Furthermore, *Magellan´s world circumnavigation and Copernicus´ heliocentric model are examples for adopting, supporting and adapting this worldview*. For flat earthers, it was however the wrong assumption that began to be established from the beginning. Although "from a mathematical perspective he [Eratosthenes] was a genius" to calculate earth´s circumference in the third century BC. The problem, as Albert carried out, was that calculations like Eratosthenes´ were trusted too soon and people disqualified other models too early. *They started off with the wrong bias and sought to confirm it*. Again, the ultimate proof for the spherical shape of the earth should have been space footage. But, according to Albert there is a reason why space organizations would fake their imagery:

"if we believe for 2300 years that we are […] on a globe in an expanding universe and we´ve invested a significant amount of scientific research and money toward the advancement of that endeavor and that understanding and then you found out all of it´s wrong and we´re in a cage, would you tell everybody else? No, I wouldn't like cause that's like just visceral response that I see from friends and family simply by saying 'hey I´m looking into flat earth', magnify that to 7 billion people. The whole world would go chaos"

This poses a reinforcement for believing into an agenda behind the globe model and a reason for why it nowadays is considered to be a white lie by flat earthers.

Not only the sky above us matters when considering models of the earth. *At a speech, the listeners were asked how deep the deepest hole ever drilled was and quickly the conference room roared: "Eight miles!" – "I love that fact that everybody here knows this!" the speaker responded*. What was criticized at the FEIC was that people commonly believe in the spherical shape of the world with all layers of it underneath the ground until earth´s core is reached, even though the deepest hole ever drilled is only a bit deeper than 12 kilometers/7,5 miles. *The argument forms around the point that cutaway drawings with layers of the earth could easily be made up since nobody ever drilled that far*. *When asked how thick FE is, speakers would simply evade the question by saying "established science managed to go about 8 miles, we don't have to go deeper."* Scientists are of course extrapolating, but issues of trust in science come up very clearly with this example (more detail in chapter 6.1.8. Science) as well as flat earthers´ attitude of having to be able to see and prove phenomena on their own.

6.1.4.4.1. Delusion & Indoctrination

The code delusion refers to reasonings why the globe model was established by officials. First, *the globe model is a way to control people*. "What a huge effort and what a great deception." Again, "they are trying to hide the whole world in itself", which is pretty much the biggest imaginable delusion. The second part of the delusion is *trying to hide the creator*. As I already explained, for people at the FEIC the creator was widely believed to be God. Modern science, under the lead of powerful elites, tries to replace God with their explanations to keep the public from understanding the world and its creation.

These delusions were furthermore mentioned "to veil from people an understanding of hope […] keep us from hope. Because if we are in a globe, if we are just a nothing dot in the middle of endless swirling galaxies of cosmos and dark fluids and vacuous space and globs of particulate matter that combined by chance, our life is hopeless." As already mentioned at one point, *the lie gets passed on until nobody knows that it's a lie anymore*, since "technically everybody is in on it because we are all reinforcing it, but they don't have to be in on it in the sense of knowing that they are intentionally deceiving anybody […] Very few would have to be in on it. Just only at the highest level will they have to be, everybody else is just reinforcing something that they believed as truth." Those were the explanations at the conference on why people would be deceived in terms of the shape of the earth and how easy it actually is to spread the delusion.

While delusion was explained to be the reason for why the globe model was established, indoctrination is why people believe in it. Everyone I talked to at the conference named indoctrination to be the culprit for

the believe in a spherical earth: *The globe model works because we were told as kids, if you were told as an adult you wouldn´t believe it*; "we´re conditioned since we´re kids"; "repetition, no nothing more than that"; "from the moment you are born, in our society, the moment you are born you are shown 'this is where you are, this is what you see, this is what you live in'"; "that's the first thing we see. Like we go to kindergarten or, you know, grade school, there it is. Sitting right there in the classroom." These argumentations were to be heard all over. The indoctrination is so strong that it overcomes our own perceptions "cause the experience of the world is that it´s flat" but "they have us filtering everything that we see and experience in the world through those heliocentric bias." Some argued that the globe *occupies our mental space in mind (as carried out in Spin-Doctrine by Edward Bernays in books like 'Propaganda' from 1928)* because "everybody is reinforcing this lie […] It´s on every TV show, every movie, universal studios put that in front of the movie. The news has it in the background behind their head, right? Global news report, whatever." Or, Johannes carried out that people would say to him:

"'I´ve seen the curvature of the earth' – I go 'where?' – they go 'well from an airplane' and some people have seen it from a balloon, some people seen it from a mountaintop […] a lot of people have seen it from the beach even though every mainstream science says you can´t see it from any of these places. So why do all of these people see the curve, it's not that they see the curve, they want to see the curve."

Hence, according to flat earthers, the belief in the globe model is something that was systematically drilled into everyone, so that no one would ever second-guess it even though its false.

6.1.4.5. Sceptic

This code refers to statements of globe skepticism. Some people at the conference would not fully subscribe to FE but definitely question the globe model. Again, although not everyone at the FEIC believed in FE or would completely commit to it, they widely agreed that there are wrongs with the spherical model: "I don´t know that the earth is flat but it certainly isn´t a globe" an attendee told me. Others would state that *they don't have a clearly defined answer about earth´s shape* or that *a lot of math and physics applied in a 3D model can also be applied in a 2D model, meaning that we can change our view and have a simpler explanation, but both models seem possible.* A speaker said that *he sees proofs for the globe but also for FE, what we need is more data.* "The backyard rocket doesn´t exist yet"*, so everyone can´t just check for themselves*. People who already committed to FE stated that *there are some phenomena that make more sense on a globe, but since the current movement is young, there is just still research to be done to proof certain aspects on a FE*. Thus, the sceptics at the conference called for more research to prove either side

but were not reluctant to accept the earth being flat. Skepticism by outspoken flat earthers was also brought up, but they were sure that FE will deliver explanations for them in the future.

6.1.5. Experimental Practice

Experimental practice is a key component of activities for the FEM. Flat earthers do not only go against established science, they also test their own claims. This category refers to Experimental Practice (see Figure 9) being talked about or its results presented at the conference. Its sub codes are certain experiments or types of experiments that are often conducted, such as Laser (4), Moonlight/-Shade (2), Video & Photography (20) and Vision (4).

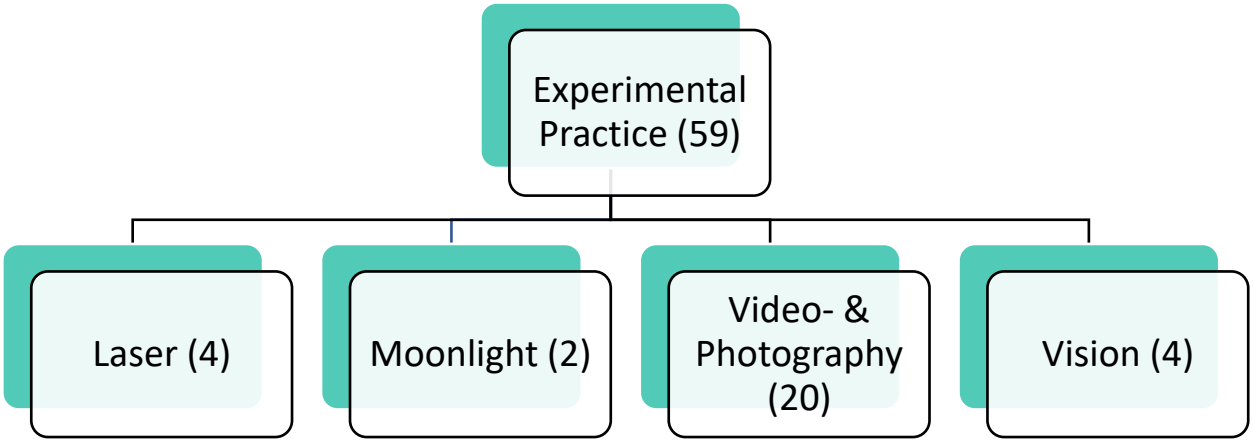

Figure 9 - Experimental Practice

An important point of flat earthers´ experimental practice is emphasizing that their *experiments are easy to conduct. You can just go out and do it;* "You can do this in minutes"; "Everybody can do it, that´s the beauty of it"; "it's also about questioning everything for yourself, do your own research"; "that's the truth of it, anybody can see that for themselves." Mainly the tests are about earth´s movement or supposed standstill, the distance between sun, moon, earth, and curvature. "If you throw a baseball straight up and it comes back into your hand, that tells me that the earth isn´t moving" was one of the simplest explanations for the earth standing still. Or, a speaker *took a gyroscope on a plane, according to him it*

should have completely tipped over during the flight if the earth was a sphere, but it didn't. Another example was "if you know how to use a sextant, it´s gonna tell you that the sun is about 35 miles [about 56 kilometers] across the diameter and about 3000 miles [about 4800 kilometers] up."

The results of *doing one´s own research would quickly blow people´s minds*: "I found very quickly that there is no curvature or motion to the earth." What gives the experiments credibility in the FE community is that, "they do take the time to go out there and do the math and do the tests […] the stuff that the vast majority of people who believe in the globe have never done." For flat earthers, testing for yourself is a way to overcome the formerly mentioned indoctrination into believing that the earth is spherical. Not going out to test is then merely an excuse for accepting what people were told their whole life. "I was like 'hey why can´t I go out and get a laser? Why can´t I go out and get a weather balloon? Why not? Why can´t I get a boat? Nothing´s stopping me, let´s do it!'"

Not all of the FE experiments are easy to conduct. A frequently named example at the conference was *a weatherman´s comment on the Chicago skyline, which was to be seen from 60 miles (about 96 kilometers) away over lake Michigan and explained to be a mirage* (see Coomes, 2015). For flat earthers it was another proof they were looking for. It was even the incentive for one of the speakers to invest a lot of time as well as effort to rent a boat and hire a ship´s captain to test the incident, trying to deliver proof that what was to be seen was not a mirage, but explainable by the flatness of the earth. Time was also invested by Albert to test for the sun and moon´s movement via the software Stellarium (Stellarium Community, 2020): "it showed what the sun and moon are doing over flat earth to create the 4 seasons […] it made it go slower over the Tropic of Cancer and faster over the Tropic of Capricorn […] How is the sun speeding up and slowing down? […] For the sun to be moving faster that would mean, in your model, the earth itself would have to be spinning faster or slowing down." The same software was used to try to disprove Eratosthenes´ shadow experiment to calculate the circumference of the earth in the third century BC. It resulted that the shadows thrown work the same way on a FE than on a spherical earth.

In the end however, the experiments conducted by FE proponents mostly turn out to be "anything but conclusive. Both camps could make an argument." Meaning that for flat earthers, the experiments proof the earth to be flat, for people arguing for a spherical earth the experiments prove the earth to be a ball. Ultimately, both positions get more fortified through experimental practice conducted by the FEM.

6.1.5.1. Laser, Vision & Moonlight

I subsume the codes laser, vision and moonlight experiments in this section since they were not used very frequently and are all specific FE experiments. Laser experiments are conducted over bodies of water like lakes or rivers. Examples at the conference were *Salton Sea in the US and Woodland Lake in Britain*. "It´s not difficult at all to conduct a test where you take a laser pointer and shine it, especially over water which is absolutely level, and find out within 2 or 3 miles, 4 miles with a laser pointer that curvature doesn't exist."

Testing one´s vision is one of the easiest tests to conduct and is hence frequently done. *Attendees often reported to go to beaches, coasts and mountain sights, seeing way further than they were supposed to, according to what they have learned*. "Every day you can see Pike´s Peak, it´s a clear day, everyone can see it all the way up […] it´s almost 200 miles. And so, all the time it was continually being reiterated onto me that I could not proof curvature. I could not take what they had given me as evidence and verify it for me personally."

Moonlight and moon shadow are not so much connected to argue for the earth being flat but for how we are deceived by established cosmology. At times at the conference people would *mention that the moon doesn't reflect the sun´s light and is thus creating its own light because sections that the moon shined on have different temperatures than those under a shadow thrown by an object in the light of the moon.* Carl carried out:

"I´ve seen that the moon produces its own light that's very cold and can be very harsh and it […] accelerates decay […] It became something that could be answered instead of with the endless expanding universe, there is no way I could know. I could never go test; I could never go find out […] But the moon´s close enough that I can do an experiment and go find out; does the moon produce its own light? And why is that light different, then if it´s just a reflected light, light never changes if it´s reflected, […] And so when I see that with the moon, that was something I could personally understand and experience"

Again, as with earth´s curvature or movement, scientific explanations would not make sense and were exchanged with own observations that delivered different, more relatable and acceptable results.

6.1.5.2. Video- & Photography

A sizeable amount of speakers and attendees at the FEIC stated to do a lot of photography or even to be experts in the field. To film one´s own footage and present it online was also done by a lot of people at the

conference (more on this in the next chapter). This code refers video and photo practice to test phenomena related to FE. A speaker for example mentioned to *bring photography skills into the movement, so he can show people how to use their cameras correctly*. In terms of camera models, there are two widely used within the movement, the Nikon Coolpix P900 and P1000. People at the conference referred to either of the models as *the official flat earth camera, mainly due to its zoom quality through a 2000mm and 3000mm lens respectively*. "They sold out the camera [P900] because of us!" *then came the even better P1000. According to astrophotography it is only possible to shoot star fields but according to the speaker you can shoot individual stars with the Nikon P900*: "If you shoot an individual star […] it´s nothing like NASA says." Furthermore, *the sun is simply a ball of light, it´s not a hydrogen bomb, you can prove it with the Nikon models.*

Another frequently mentioned example was that you can disprove one of the oldest supposed proofs for a spherical earth, namely, ships disappearing on the horizon hull first. "Boats going over the horizon, I would have absolutely been with you up until 10 years ago. 10 years ago, we had HD technology […] the boat used to be gone, forever. Now, all you have to do is crank up the zoom and it's there." Or "if you use that camera you find the ship again" two speakers respectively put it.

Cameras were also assembled on weather balloons to prove that no curvature is to be seen from high altitudes. Lens distortion is however always a problem, also with official footage from altitudes such as Felix Baumgartner´s jump from the stratosphere. *Putting footage online leads to* "the debunking of the debunking of the debunking" *between flat earthers and people who argue for a spherical earth.* Hence, the weather balloon footage again brings a back and forth reinforcement for both camps.

6.1.6. Social Media

Arguing for and against FE mainly happens online, which brings me to the category of Social Media, including how FE content is facilitated (see Figure 10). Its sub codes are Censorship (10), Necessary (5) and Negative Comments (5, already explained in chapter 6.1.1.3. External Reactions).

A lot of activity of the FEM happens online. Several social media platforms provide places for exchange and reinforcement but also arguments and struggles surrounding the topic of FE. "Waking up folks is much easier through social media" was pointed out at the conference. Therefore, there are a lot of *forums and groups for exchanges about FE, but YouTube was mainly named for sharing content.* "The only thing I do on social media is YouTube" a speaker mentioned, and it is enough for him to share all of his content.

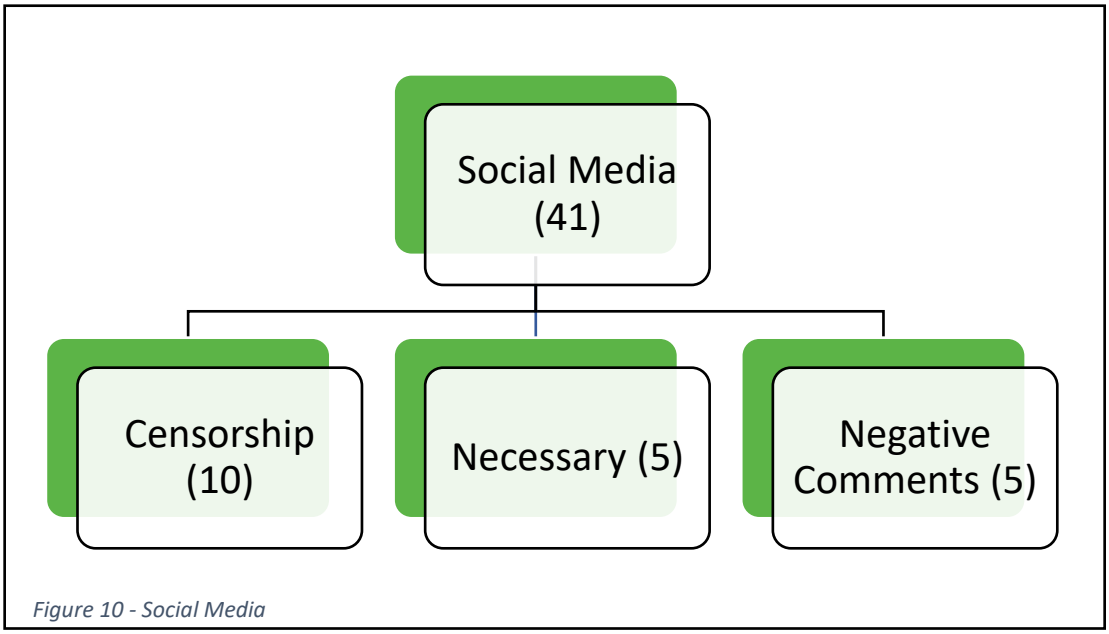

Figure 10 - Social Media

Starting in about 2014, FE content was spreading a lot via YouTube, "we would not exist if it wasn't for YouTube, would not exist, in the slightest"; "Social media plays a really huge role in our outreach" as two speakers told me respectively. YouTube-recommendations would lead people to *watch 20 flat earth videos in a row*. But that was not enough for a lot of watchers who got intrigued by the topic as Johannes remembers:

"I don't recommend people go to the beach and start doing long distance photography and yet that's exactly what a lot of people did. It was like 'oh I gotta be able to test this one way or another' […] that gave people ideas, they gave other people ideas […] everybody posted everything on YouTube and it just kept spreading, people started building on other people´s work."

"For the next 5, 6 months I just started watching everything, all the recommendations on YouTube" Isaac recounted, and then "utilized my social media platforms to try to expose the deceptions that are happening around us and yet also bring courage in it, solution to that." The easiness of facilitating content was highlighted by Albert: "Social media is great in that sense […] 'whatever your message is, there´s an audience for it, no matter what it is'" and "social media can take you to places you never thought you could go. I went from a nobody to an internationally recognized public speaker that people find and actually wanna listen to. Just because of social media." Furthermore "I had probably 30.000 subscribers on YouTube before getting into this. And now I´ve got almost 200.000 […] this movement certainly bumped up my numbers."

Often, people at the conference mentioned that getting into social media was necessary to follow the movement and satisfy the need to add content to it. *In order to keep up with FE, she had to get into social media*, an attendee told me. A speaker said, "I had to make videos, it was necessity" and another one pointed out that "it´s a necessary evil for me. If I could get off of it, I would." Hence, there is certainly a necessity for social media within the movement but members "have to know how to deal with the negative as well as the positive."

One last thing about social media was frequently mentioned at the FEIC, namely the current attempt to block out FE content from it. I already pointed out earlier that *YouTube stopped recommending them since 12 months*: "Now that they are in the process of trying to censor us as much as they can, and they are, you know, taking us down from the ranks and availability, [YouTube] recommended", or "all of a sudden my income got cut like in half. Then they started shadow banning us, which basically means 'okay you can keep your YouTube channel but no one´s gonna find you'" two speakers respectively carried out. *The 'golden age' of the internet in terms of free and unlimited information sharing was often mentioned to die out*. Therefore, after social media helped the FEM to rise initially, there is currently a lot of backlash to the movement which limits its output and reach.

6.1.7. Conference

The category conference (see Figure 11) relates to how the event was built up and how the mood at the FEIC was. I already described its sub-code Attendees (12) in chapter 6.1. Generally, my impression was that *the mood at the conference is really good, everyone is very excited about the event*. *A lot of people already know each other (at least through social media) and are super enthusiastic about being here. People are happy about the conference and nobody is an outsider*. *Humoring is turned around at the event, in the sense that, for example, at speeches established scientific explanations for phenomena are laughed at while in a 'regular' setting people would laugh at FE explanations.*

A lot of speeches have big introductions with videos and music. *In general, the supposed credibility of official sciences is made fun of. Flat earthers are getting motivated to stick to their beliefs. Phrases like 'how I woke up' and 'I have been deceived for so long' are to be heard all around*. *The well-known speakers are very crowded as they were the motivators for a lot of attendees to get into FE. The concluding event at the main stage held a FE award show for best experiment, song, video series, etc.*

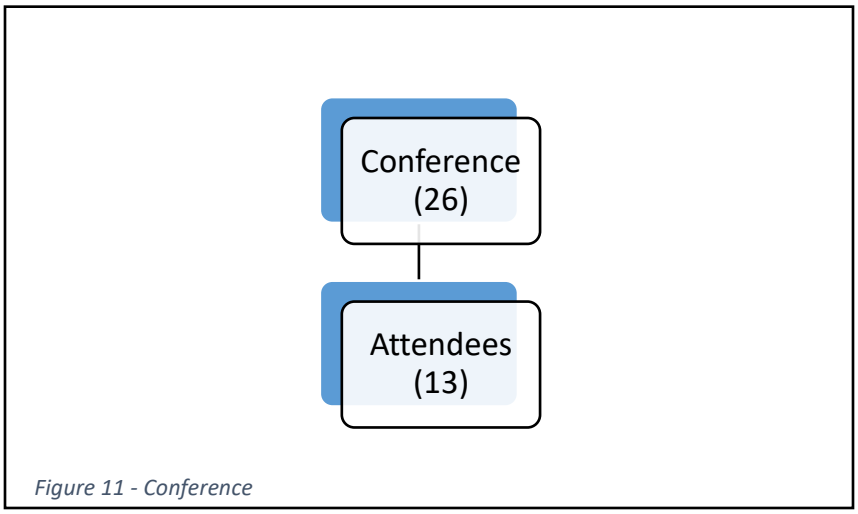

Figure 11 - Conference

When I talked to people at the conference and told them about my research project, nobody was reserved to talk to me. It was quite the opposite; everyone was motivated to explain their worldviews to me, and many were also interested in my research. Although they at times, *jokingly warned me that my head will get too filled up with all the FE stuff here*. As I already hinted at in the methodology chapter, me being in the minority, flat earthers in the majority and at one of their own events, probably affected the participants at the FEIC to feel confident and relaxed when taking to me as a researcher.

On the second conference day, *a university information event started right next to the FEIC in the same conference center. Leading to interesting encounters between the to-be-students, who looked around the FE stuff, and members of the FEM telling them things like 'You learn more here than in 3 years of college.'*

Furthermore, the importance of events such as the FEIC was highlighted for three reasons. First, because it was a place where flat earthers did not have to fight for their believes, as I noted: *At the FEIC flat earthers can be themselves. They share what they believe in and find confirmation.* Or as Albert mentioned "conferences like this are a breath of fresh air because in this environment everybody can kind of let their hair down and just be free to have discussions without ridicule and whatever. So, this is a shot in the arm, this is great." Second, because new ideas get exchanged. Third, the conference was important for FE proponents due to the previously carried out current backlash of blocking the FEM´s online content by YouTube and the likes:

"You attend a conference, then you can have these discussions […] you meet other people […] and they´re out there doing stuff too. And then they´re telling you 'hey did you ever think about this?' and I´ve gotten so many amazing ideas from just the people that I meet at conferences. And you know I think that's a big part why this is growing, the more conferences that we do and the more personal interaction we have with people, that's way better than the social media. Especially since social media is staring to go away. This

may become more of a thing. Even more so in the future simply because we are losing our social media platform." – Albert

An attendee also mentioned that *he already knows all of the content from the speeches, but the conference is an important and nice place to meet everyone who is in the movement*.

Randall Collins argues for the importance of physical co-presence and face-to-face meetings, which was confirmed at the FEIC. People actually meeting up physically creates emotional energy and solidarity to enhance commitment to, for instance, a movement. To actually meet and interact with likeminded people face-to-face is a way of energizing and motivates involvement (Collins, 2004).

6.1.8. Science

Science was a well discussed topic at the FEIC. This category holds what people at the conference had to say about established science (see Figure 12). Its sub codes are Quoted Scientists (8), Arguments Against Science (8), NASA (26) with the sub-code Space Visualizations (4) and Opposing Scientists (8).

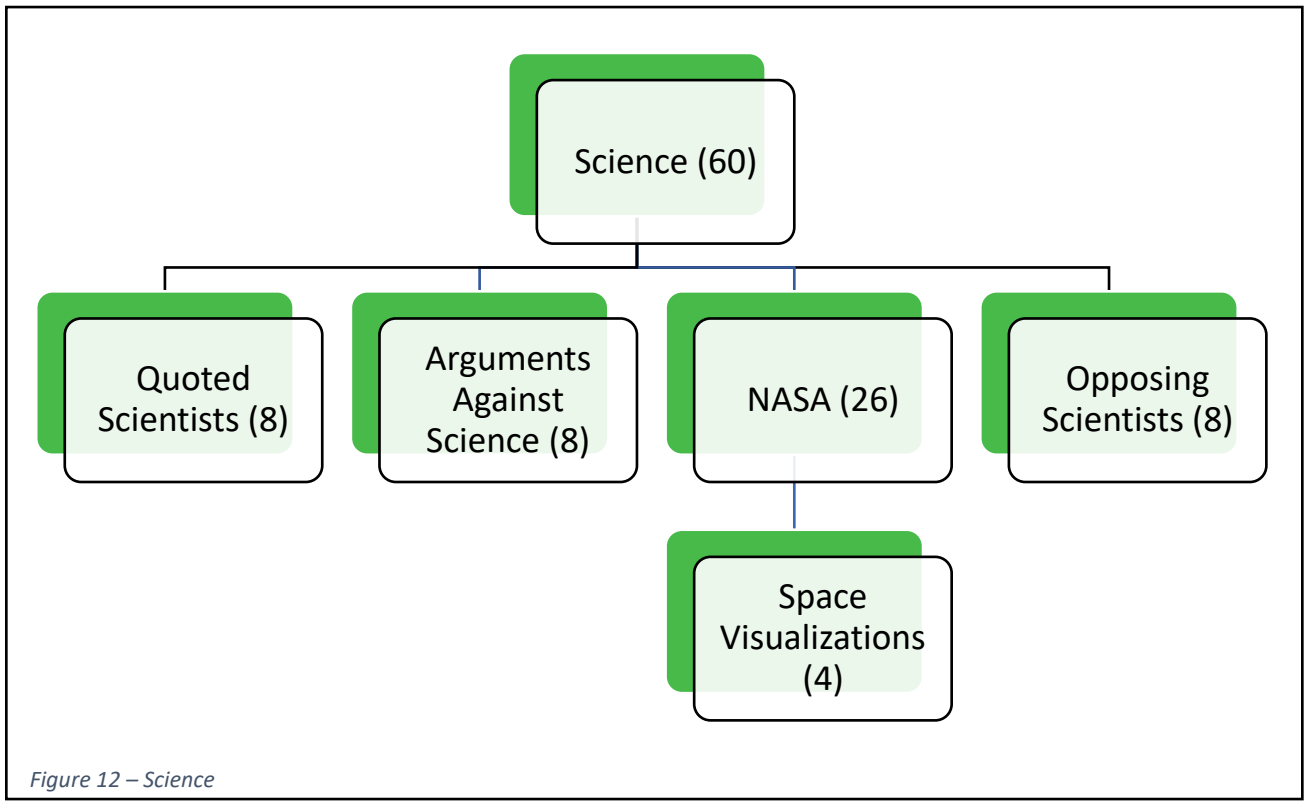

Figure 12 – Science

Generally, the stance upon science at the FEIC held two sides. On the one hand, science (especially cosmology) was perceived to be carried out with *fully intolerable assumptions and is driven by ideology ('it has become a religion') and corruption*. Furthermore, "science makes mistakes", yet scientists claim to be *100% sure the earth is a sphere, even though they just seek to confirm their preconceived bias*. On the other hand, certain parts of science were fully supported and frequently mentioned. Carl contrasted both sides: "I love the sciences that come through the study and the evaluation of empirical data […] I do not like science that is based in an ideology or religious conviction to maintain a corporate identity, maintain a belief system." Isaac furthermore recalled:

"I was going to school at the time was Georgie state university and they have one of the best astronomy programs with you know, observatories and I thought that would be fun to actually look and examine the stars with high power telescopes, so that's what I did and that was my science for my major [… now that he believes the earth to be flat] examining the stars and looking at the planets and seeing them in the manner that we did, I still believe that they are and look like what we saw. But the whole structure of the solar system has changed for me."

Understandably, sciences that established the globe model were opposed. Believing in FE however does not mean that all scientific facts have to be abandoned. Again, sciences that are observable and testable for oneself are the most trusted. A lot of people at the FEIC were spending sizeable amounts of time investigating into scientific facts to decide if they support them or not.

6.1.8.1. Quoted Scientists

At the conference, a few quotes from scientists were often used. The quotations were bits and pieces from well-known scientists who claimed specifics about their research fields or science in general to be lacking. The overall context of these statements was however left out. Michio Kaku was the most cited scientists (theoretic physicist) at speeches. First, for saying *'nobody in my field uses the scientific method'* and second, that *'in cosmology we´re off by a factor of 10 to the 120, that is a 1 with 120 zeros after it, this is the largest mismatch between theory and experiment in the history of science*.' Another frequently cited statement was by the physicist Nikola Tesla: *'Today´s scientists have substituted mathematics for experiments, and they wander off through equation after equation, and eventually build a structure which has no relation to reality.'* Both, Kaku´s and Tesla´s quote were followed by the argument that *why should we trust in science if scientists themselves admit not to work 'correctly', be off by factors of ridiculous magnitude, and lose relation to reality in their doing*. As Albert put it, "science has gotten to the point

where they are admitting to being 96% stupid and off by the 10 to the 120th power in the very thing they claim to be experts in. So, why would I listen to these people anymore?" One last, not so frequently cited statement, contained the three stages of truth by the philosopher Arthur Schopenhauer: *The first stage is to ridicule. The second stage is opposition. The third stage is acceptance as self-evident*. This quote referred to the public reaction on the FEM and claim that the earth is flat. A few years back, when the current movement was initiated, FE was ridiculed. As we are in stage two now, it gets opposed, but in the third stage it will be accepted as truth, is the argumentation and prediction behind using the quote.

6.1.8.2. Arguments Against Science and Opposing Scientists

Arguing against science was done when it came to specific phenomena with explanations that did not make sense and supposed wrongs of scientific experiments for people at the FEIC. For instance, gravity, or its non-existence was often addressed, *'Why is the solar system working? – Gravity! Why is your girlfriend mad at you? – Gravity! Why is this or that? – Gravity!' The point is that gravity seems to be used to explain everything happening on earth and about the cosmos but FE doesn´t need gravity.* Two experiments that were mentioned at times were the *Michelson-Morley experiment and Airy´s failure. Both were used as explanations that there is no movement to the earth and argued to be disproving the heliocentric model*. The experiments were however based on the assumption that light needs a medium to travel through, the 'ether'. *One of the attendees explained to me that officially, the experiments disproved the ether but what they really disproved was the heliocentric model. For him, the ether was not disproven, and it is a valid substitute for what established science calls gravity*. Another argument against the accepted understanding of the cosmos was that *it is impossible to have vacuum around an object, as the spherical earth has in space.*

One last remark about science that was pointed out at the FEIC was that it claims to be right all the time, even when it gets disproven. "This is the part that drives me insane about science, which is they will deny, they´ll say 'it's stupid, it's ridiculous, it´s myth, it´s legend' until it isn´t […] science is only true until the day that it isn´t and then they put it under their banner" Johannes explained. The argumentation goes along the line that if science admits being wrong all the time, they could be wrong about the shape of the earth as well.

There were two scientists everyone at the FEIC opposed, Brian Cox and Neil deGrasse Tyson. Both of them publicly dismiss FE. But their statements are picked up to be arrogant, as was emphasized at a speech *'Neil*

DeGrasse Tyson said that science is true whether or not you believe in it. One of the most arrogant things I´ve ever heard in my life.'

I already pointed out that the FEM strongly opposes NASA. Especially NASA´s scientific work, including their space visualizations, was frequently criticized. First of all, *NASA was named not to conduct science, but as being a form of entertainment for the masses. 'Everything they do is CGI based stuff'; early astronaut footage looks like a stop-motion movie; NASA has all the means to produce fake footage of space which is already easy with green-screening*, was pointed out at speeches. All of the speakers had similar stances on NASA "this wouldn't have gotten as much traction if NASA´s production values weren't as horrible as they were. Look, if NASA´s photos, if NASA´s movies, if NASA´s live feeds were 100% bullet proof we wouldn't be having this conversation"; "when I looked into NASA and the images that they were giving and showing to me I was able to see and evaluate that these images are composite images, these images are being edited"; "the moon missions and NASA is, you know, getting 56 million dollars a day in tax money, for what? You know, for creating some CGI? I mean, it´s insane" and lastly "the only way we could have known the earth is a globe is to get out and take a picture of it […] when NASA claimed to do that it validated the 2300 years' worth of assumptions. But what if this picture is false? If this picture is false, then it really didn't validate all those reasonable assumptions after all." Hence, for flat earthers, NASA (as well as every other space agency) is a well-funded organization that was implemented to create space visualizations which deceive the public on what is actually true about the cosmos.

6.2. Discussion

In this chapter I will examine the results in further detail and discuss them in the light of the theory part and literature review of this thesis. I will start by discussing the 'wonderful' and 'frightening' aspects which title my work and then turn to a more general discussion.

6.2.1. Frightening Side

"Where´s the lay of the land
My son
Where´s the lie of the land
My son"
(The Fall, 1984a)

The 'frightening side' of FE relates to different viewpoints on the topic. What is initially frightening for flat earthers is that the 'lay of the land' is blurring with the 'lie of the land.' Accepting that the earth is flat leads its proponents to realize that a supposed major deception has been happening for a long time, everywhere. Although FE proponents generally state that they did not want to believe in FE in the first place, they eventually committed to it because of the overwhelming evidence, mediated through what I analyzed to be cultural and social factors (see e.g. Gooren, 2010).

The 'frightening side' however much more relates to how the movement is perceived from the outside. If an increasing number of proponents undermines well established facts, the basic understanding of the world is at stake. While the FEM has no intent to frighten anybody, the nature of their arguments is provoking at least. The areas of scientific enquiry, which FE proponents attempt to challenge, are probably the least threatened. What is sociologically relevant, however, is the threat to what and why facts are socially accepted among groups of people. Through rapid information exchanges in the network society, any perception of reality can be constructed with knowledge that gains validity by being socially accepted.

The point that FE brings a lot of underlying fringe assumptions with it makes its further implications clear. The move from uncovering one supposed deception to another is simply done and it is easy to ultimately end up questioning everything that is presented as news and facts, for instance, in mainstream science and media outlets. If actors are left with no information classified as valid at all, they might not only end up in an enclosed worldview like FE but also be socially enclosed with their beliefs, since conspiracism is widely regarded as an insane or at least a highly irrational way of seeing the world. The current trend of conspiracism leads to conspiracies without theories (Muirhead & Rosenblum, 2018) or "auto-hoaxing", as

I encountered it at the FEIC. Its tendencies of ultimately delegitimizing governmental institutions by undermining any trustworthiness of information is indeed a frightening outlook.

6.2.2. Wonderful Side

"It was a thing with a head like a spud ball
It was a song, the song we were looking for"
(The Fall, 1984b)

The 'wonderful side' refers to FE being the answer its proponents were looking for to make sense of the world. It accounts for the inside of the movement and the personal underlying experiences. Flat earthers overcome what was initially the frightening side about a supposed major deception for them, through what they perceive as the wonderful side about it. Their final commitment to FE is however what the general public might express as creating the frightening aspect about it.

Especially in confirming a creationist worldview, FE delivers an explanation that not only makes sense for its proponents but also empowers their standpoint. For flat earthers, the FEM goes beyond arguing about the shape of the earth. There are a whole lot of recognitions attached to it. It is a form of self-realization to be the center of everything that happens in the world. Generally, the belief that we are cosmically insignificant and by no means in the center of the universe might be a more frightening worldview. FE provides understanding and meaning to life itself for its proponents. Set aside the scientific misinterpretations and evil imputations of well-established institutions, the very core of FE belief is the creation of a world that can exist on its own and gives hope as well as provides a simple, yet powerful explanation for our being. Simplification has its appeal in modern times (Bale, 2007) and the FEM fulfils the need for a simple explanation of a complex world.

Not only its simplicity stands out, the FEM generates emotional and excitative reactions from its members. FE, as well as other conspiracy theories, is a way of expressing dissatisfaction with corporate establishments and rising up against allegedly corrupt holders of power. Its proponents are the 'underdog' in a fight that seems impossible to win, but they will not give up this fight for the one factor that matters in the world, the truth. A point that certainly gives members of the FEM reinforcement in their beliefs, especially because established institutions oppose the movement´s uprising.

There is however a duality emerging from their standpoint: Flat earthers criticize and distrust corporate and governmental establishments, for example transcontinental firms such as big pharma or NASA. While it is commonly accepted that such firms act in secrecy to avoid competition, flat earthers have a particular

take on their actions because they suspect conspiratorial activities. Vice versa, to the wider public, being able to reach a substantial amount of followers and spread misinformation about matters that are believed to be well-established knowledge, flat earthers represent what is wrong with contemporary society. Insight and transparency are certainly key demands towards established institutions but declaring their quiet acts to be conspiracies is regarded as going too far. In other words, flat earthers are trying to fight unjust power structures (which are a real contemporary problem), with what can be classified as a separate problem in modern society, namely the spread of misinformation.

Although conspiracism is one way of criticizing a perceived lack of transparency and decision making veiled from the public´s consent, it is rather radical since through buying into conspiracism, criticism cannot be provided without abandoning trust in institutions completely. A distinction between actual clandestine activities and supposedly mischievous plots is key to hold when trying to make sense of the world.

6.2.3. General Discussion

I now come to the general discussion of my findings. To start broadly, in the light of Berger & Luckmann´s *Social Construction of Reality* (1966), flat earthers question both, the primary and the secondary socialization they have received. To start with the latter, for flat earthers, secondary socialization concerning understandings of the universe is classified as indoctrination happening in institutions such as schools. Critique from FE proponents is directed towards teaching children about the spherical shape of the earth and not even presenting them the possibility of another, for them, plausible concept. The indoctrination aspect of flat earthers´ critique also goes in line with Anthony Giddens´ concept of trust in abstract systems (Giddens, 1991). Children get introduced to basic dosages of trust when growing up. Building up on it, although not knowing the details, the broad public trusts in these objectified bodies of knowledge. Flat earthers however question these trusted systems and go through re-socialization with radical re-assignment of knowledge and meanings, altering their understanding of reality. The process goes as far as resembling primary socialization because the basic structure for all secondary socialization is challenged and changed by a FE worldview. This time, significant others are not parents but members of the FEM, which is the “group that embodies the plausibility structure and […] personnel assigned the task of re-socialization” (Berger & Luckmann, 1966, p. 177). Ultimately, they find themselves in a new world of knowledge and understanding that leads to discard what is accepted in the previous understanding of reality. This changes not only the here and now for FE proponents. They are also going

back to past events to re-think them with their new lens for reality. This way of discarding basic institutional trust can even be classified as "existential *angst* or *dread*" (Giddens, 1991, p. 100).

High levels of distrust are an essential component of conspiracy theories and for flat earthers the widespread misinformation about the world being a sphere is definitely one of the biggest supposed coverups among existing conspiracy theories. What makes conspiracism generally appealing is that there is always another, sometimes even bigger, conspiracy waiting to be uncovered. It is like a game of connecting clues that emerge from confronting topic after topic on one´s own. Since FE is one of the biggest conspiracies there are more underlying conspiracies, like faking the moon landing, building up on it rather than FE being a small component of a greater plot. Ultimately, conspiracy theories are entangled in a coherent structure of one´s own bits and pieces of beliefs that serve to make sense of all sorts of events happening in the world. FE, like other conspiracy theories, has its self-sealing quality, making it resistant to disproving evidence provided by certain institutions (Sunstein & Vermeule, 2009). For flat earthers, the most distrusted institution is NASA, which is also the most common and accountable source to disprove them through actual space footage. Other globe model proofs that can be conducted without actually seeing any curvature of the earth are allegedly debunked by flat earthers. Hence, to deliver proof for the spherical shape of the earth that is sufficient for the FEM to disprove them is a hard endeavor without involving materials from any space organization. The one accepted proof for FE proponents to refute them would be to send a 4k-resolution camera, without barrel distortion, broadcasting live, into the air until curvature is clearly visible. According to a research paper in *Applied Optics* this should be possible at an altitude of about 35.000 feet/10.600 meters with a field of view of 60 degrees in nearly cloud free conditions (Lynch, 2008).

Flat earthers are generally very much into doing their own research. Established science thereby gets replaced by observations FE proponents can do themselves to find out about particularities of a phenomenon. Even though they know about specifics of official explanations and experiments, flat earthers would not accept them as facts because they could not reproduce the results for themselves or would not trust the institutions that conducted the tests. Many FE experiments can be done very easily, like throwing a baseball into the air to test for the earth´s movement, but some members of the FEM also put a lot of time and effort into researching the issue. They then for instance conduct laser or weather balloon tests that need certain planning and equipment. However, the main point remains, namely that established science is exchangeable with what is observable for oneself. While some official explanations are thereby replaced, others fit into the FEM´s meaning making patchwork.

Distrust, conspiracism and doing one´s own research are not the only factors for coming to a FE worldview. Clearly, religion, spirituality and creationism play a major role for the largest part of the FEM. From a sociological standpoint, Peter L. Berger investigates the relationship between human religion and human world building in *The Sacred* Canopy (2011 [1967]). Religion creates the quality of 'sacred' opposed to 'profane'. The former is encountered as extraordinary and non-human, even though referring to humans in everyday life. As for instance, the cosmos has historically and culturally been seen as a sacred place. Modern attempts of secularization, especially through science, try to move away from the sacred character of the cosmos. Berger notes that "religion has played a strategic part in the human enterprise of world-building. Religion implies the farthest reach of man´s self-externalization, of his infusion of reality with his own meanings […] religion is the audacious attempt to conceive the entire universe as being humanly significant" (Berger, 2011 [1967], p. 26). The role of religion is key in various societies of the world, as it is for the FEM. One point that religious members of the movement constantly bring forth is its legitimization. According to Berger, religion has always been the most widespread and effective instrument in facilitating legitimization, which is so effective because it relates our profane reality constructions with the ultimate reality, the sacred, that lies beyond human meanings and activities. One could argue that religion is just another reality construction in the light of the sociology of knowledge but there is an important difference. Religion, even though socially constructed, holds the essence of hiding its constructed character. The belief in religion is the belief that it existed not from the day of its construction but the beginning of time. It transcends history and humankind; it had emerged externally, making religion not a cultural product or second nature but the very nature itself. Thus, religious legitimizations bestow "ultimately valid ontological status" in the "sacred and cosmic frame of reference" (Berger, 2011 [1967], p. 31). Berger makes the role religion can play in society very clear. One of its core features is the ultimate legitimization of the sacred, which can transcend any other form of reality due to its maximum externalization from human action. Hence, stating that "the bible is a flat earth book, cover to cover", which was often to be heard at the FEIC, already implies that this argument constitutes a comprehensive legitimization for a FE worldview.

An essential part of the religious outlooks and beliefs for many members of the FEM is creationism. Without going too deep into the origins debate between creation and evolution, I want to point out the cultural and sociological significance of creationism. Creationist arguments form around, (a) biblical creationism, which goes back to explain the beginning of life through God´s creation, as described in Genesis (The Editors of Encyclopedia Britannica, 2017); and (b) scientific creationism, a concept used to reason that creationist proofs from Genesis can be found through technical, scientific evidence. These two

forms of creationism supplement each and represent two context specific forms of argumentation for a creationist worldview (Coleman & Leslie, 2017). In the creationist discourse, argumentation forms out of an interpretative reading of science through the bible as well as reading the bible through science (Locke, 2017), reinforcing both forms of creationist argumentation. Creationism is also not an isolated belief system about creation alone. There are a lot of underlying understandings coming with it, hence "it is usually part of a wider religious cosmology and set of practices that touch on issues of identity, morality, ritual and social belonging" (Coleman & Leslie, 2017, p. 33). Today´s neo-creationist/new-creationism movement refers to *Intelligent Design* (ID). As the name suggests, God is thereby the intelligent creator and designer of life. Proponents of ID frequently argue for the complexity of observable structures and phenomena and conclude that only a higher entity can be the reason for the existence of such sophisticated systems (see Harrold, et al., 2017; Ruse, 2017). Big parts of the FEM hold creationist worldviews, as the topic of the earth´s creation by God was a prevalent theme at the FEIC. I also encountered ID argumentations, such as "God is a designer, he designed the world as we know it" at various points of the event. Creationism and ID enforce religious beliefs and even enhance legitimizations that argue for a FE model. While a religious belief does not itself cause a person to believe in FE, it is a reinforcing factor. Flat earthers argued that their faith became stronger after they joined the FEM. Looking at it the other way around, a belief in FE also does not itself cause religiosity. It may very well raise questions about the creation of the earth, but the explanation does not have to be traced back to God. Ultimately, FE and religiosity are factors that reinforce, but not cause each other through their mutual legitimizations.

Considering the history of the movement, the FEM´s approach is still deeply rooted in Samuel Rowbotham´s *Zetetic Astronomy* (1865). It is constituted by combining a do-it-yourself scientific attitude with religious explanations of our being. Flat earth proponents from the mid-20th century who carried on Rowbotham´s approach like Samuel Shenton were however not mentioned at the FEIC at all. This was most likely due to the founding of and association with the Flat Earth Society (FES) of FE proponents from these times. While the FES is seen as a caricature of the topic, the FEM is serious about it. Hence, representation is an important issue for the FEM, which is challenging due to the range and form of its claims. The approach of today´s movement is going back to Rowbotham and so do some of the observations. For example, the Chicago skyline 'mirage incident' (see Coomes, 2015), can be seen as an up to date example of Rowbotham´s observation on the Old Bedford River. In this case, flat earthers argue that it would be impossible to see Chicago´s skyline over lake Michigan if the earth was not flat. Likewise, to Rowbotham´s observation in the 19th century, the Chicago skyline incident can be scientifically explained

by atmospheric refraction. An aspect of the FEM that is clearly different to the mid-19th century movement and certainly strengthened its content spread over the last approximately six years, is digital media´s 'prosumer' culture (Ritzer & Jurgenson, 2010). Others´ FE experiments can not only be followed online but own research can also be presented, creating a structure of coherent understandings.

Currently the FEM is in a good position, meaning that the movement has a sizeable amount of members and still produces content. Over the course of the last year however, as FE content got blocked and demonetized from YouTube more and more, members of the FEM face problems facilitating what they are doing. A possible outlook for the movement is that it will be harder to recruit new members due to their online restrictions. The question remains if its current base is big and convinced enough to sustain and expand their action. Although events like the FEIC are popular among FE proponents, such offline meetings alone cannot sustain the whole movement, but still importantly supplement what is happening online.

There is a wide array of sociological research into social movements that helps to understand specific mechanics and aspects about them. In general, Herbert Blumer describes social movements "as collective enterprises to establish a new order of life" (Blumer, 1939, p. 199). They can develop from underorganized entities, arising from dissatisfaction of a current situation, to social organizations. Further definitions characterize them as a collective attempt outside of established institutions with common interests and goals that are pursued via collective action (Giddens, 1989). Their campaigns try to reach claims through repeated performances in organizations, networks, traditions, and solidarities to sustain activities (Tilly & Tarrow, 2006). Anti-establishment, collective action and the pursuit of social change are main characteristics of social movements which can be found within the FEM.

One of the most recent debates on understanding social movements forms more around their core features and implications for members. While earlier research focused on building up collective identities that serve as fixed orientation points (Taylor & Whittier, 1999), a move from this solidarity to "fluidarity" (McDonald, 2002) is now argued for, especially in the light of information technology networks. The social is thereby holding more fluid-like characteristics with a move from collective to personal dimensions of identity. In more detail, Kevin McDonald argues for four characteristics of this shift: (1) *Significance of affinity groups*: Affinity groups are smaller entities within a social movement who are acting together. But each member of an affinity group participates in a different way. Furthermore, organizational structures of hierarchy and delegation as well as initiation rituals are declining. Networks and actions are built up around projects instead of long-term involvements. This way, participants achieve self-discovery through the group in friend-like, trusted relationships of shared experience. (2) *Rejection of delegation and*

representation: There is less commitment to a big organization and hence there is no clear-cut spokesperson representing the ideas and action of the whole movement. (3) *Fluidity*: The network culture is requiring urgency and simultaneity. Modern social and technological systems are based on immediate and instant exchanges. They are leading away from a sequential logic, to exchanges happening in parallel. (4) *Narrative Structure*: Especially the narration via videos is key. Movements are visible through media content, but this visibility and narration also constitutes personal experiences. (Social) media technologies let people tell their stories (McDonald, 2002). These four characteristics of social movements go in line with the results of my research into the FEM. First, the FEM is split up into affinity groups. Smaller entities of the movement are dealing with different issues regarding the topic. For instance, networks for projects work together to discuss and investigate on the various biblical implications that lead to a FE worldview, while others get together to conduct and compare different kinds of experiments. There is no overarching organizational structure or hierarchy delegating these processes and no existing initiation rituals are needed to be part of the movement. Within those smaller entities, but also between them, friend-like and trusted relationships among members were clearly visible at the FEIC. Second, "this is a leaderless movement of independent researchers" was emphasized at the conference. There is no clear-cut spokesperson who represents the ideas and actions of the whole movement. Third, the FEM does not work out a program in sequential logic. Independent parts are working simultaneously on themes and bring together their results in immediate, parallel exchanges. Fourth, narration through videos (for instance via YouTube) enables the expression of personal experiences, in which every member of the movement can tell their stories of why FE makes sense for them. In conclusion, there is indeed no overall collective identity every member of the FEM has to or is subscribing to. The independency between parts of the movement is one of its core features. This also goes in line with Michel Maffesoli´s argumentation for the prevalence of fluid and emotional attachments over structural and rational distinctions in today´s society (Maffesoli, 2016).

Lastly, flat earthers´ own experiments create a wider trench between them and people actively arguing against them. While globe model proponents point out that FE experiments prove the spherical shape of the earth time and time again, flat earthers interpret the findings insofar as they prove the earth to be flat. Both camps are far from consensus and fortify their positions through reciprocal endeavors. The question remains if the formerly mentioned one proof to debunk FE will ever take place in a way that lets flat earthers give up on their beliefs, or if they are too determined on their worldview to ever abandon it. What I furthermore noticed were the struggles that the debunking, of the debunking, of the debunking, … bring with it for members of the FEM who are engaging those discussions on a regular basis. It is a process that

can be highly outwearing as FE proponent Samuel Shenton in the 20th century showed when his constant arguments cofounded his heart problems (Garwood, 2008).

7. Conclusion

I will now come back to my research question to summarize my findings: *What constitutes a contemporary movement in its meaning making processes that holds on to the conjecture that the earth is flat?* – the answer is manifold. As depicted in Figure 13, the meaning making processes can be summarized as conspiracism, creationism and an anti-science stance. None of the three factors assure a FE worldview, but all of them are reasons to get into, argue for, and legitimize FE.

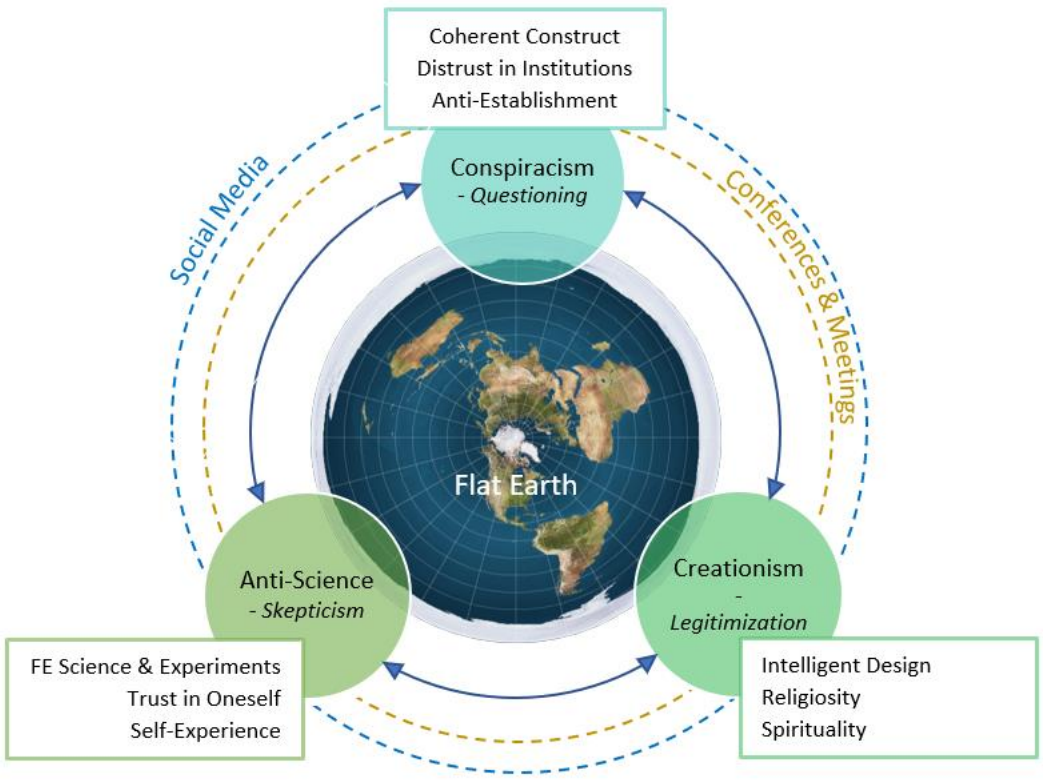

Figure 13 – Conclusion
(FE background image available at: https://de.cleanpng.com/png-005svu/ [Accessed 21. May 2020]

Explained through a detailed look into every factor; (1) On the one hand, to question establishments and see a major conspiracy orchestrated by elites hiding the true shape of the earth can be enough to believe in the FE model. On the other hand, FE is a (at least initially) disliked conspiracy theory in the conspiracy world which means that people who are into conspiracies do not have to be flat earthers. (2) The FE model is easiest to legitimate through a religiously motivated creationist worldview. But it is important to note that creationism does not in itself lead to a belief in FE. (3) An anti-science attitude enforces to be sceptic towards science´s accomplishments generally and thus also towards the establishment of the globe model.

More satisfying or simpler answers can be found through replacing it with the FE model. Being sceptic however does not have to lead to a FE worldview, it is more of a call for the need to be personally able to deliver satisfying proofs for phenomena surrounding the issue.

The most important point about these factors in FE context is their interconnection and mutual reinforcement. Conspiracism is the strongest influence to question official sides of happenings in the world. Conspiracy theories are built up in a coherent structure in which the jump from uncovering one conspiracy to another can be a slippery slope that constantly relocates the threshold for recognizing greater plots. One of the main characteristics for believing in conspiracy theories is distrust in established institutions, which leads towards mainly trusting in one´s own abilities through reliance on self-experience and -research rather than mainstream science. Also, questioning scientific accounts strengthens a creationist explanation for life. Creationism is the strongest factor to legitimize a FE worldview. While for some, the argumentation that the bible delivers FE proofs is sufficient to be convinced by it, for others it is an incentive to look for further evidence, for instance with experiments. This goes in line with *Intelligent Design* argumentations for how sophisticated systems can be scientifically observable but only explainable to be designed by a higher entity. Personal, spiritual connections to greater powers are tied to experiences that justify one´s own actions and trust in oneself. To disseminate science´s attempt of trying to hide God as the creator of the world is furthermore easier when scientific institutions are characterized as intentionally hiding information from the public to use it for their own good. Lastly, an anti-science stance is the strongest factor in being at least sceptic about the globe model. To be sceptic does have to involve either a conspiracist or creationist mindset going with it, but people do not have to be full blown conspiracists or creationists for it. The argumentation goes more along the line of personally not being able to verify the earth to be a sphere, with a side note that existing data cannot be completely trusted, or creation makes more sense for the earth´s existence than scientific explanations. The reciprocal reinforcement can lead a person to be convinced by all three factors for FE. He or she then delivers reasons to research the issue, distrust in official sources and legitimize a FE worldview.

The movement itself is constituted around argumentations which go back to its origins from about 150 years ago, in combination with its current mainstream appearance as well as greater opportunities to test and share FE content through online communication channels. New technologies, especially in video- and photography, extend flat earthers´ line of research which was easier than ever to facilitate in online channels until about a year ago. Contemporary content forms around the above carried out argumentations for conspiracism, anti-science and creationism with their connected reasonings. While FE´s appeal clearly rose over the past six years initially through social media, conferences and meetings

also gained importance. Both possibilities for social interaction are key for today´s movement. New members are best recruited online, especially through videos that present content for all sorts of argumentation in conceivable fashion. Flat earthers are however still left in a cornered position because of the vast backlash they receive online. Conferences and meetings are then important gatherings to have discussions in a comfortable environment without the need to be on a strong offense or defense in their argumentation. Lots of FE proponents are keen to tell their stories and bring forth personal experiences which lead them to FE as an eye opener for what is happening in the world. Online and offline networks let them introduce and pursue their narratives which, for them, constitute the worldview of the earth being flat.

8. Outlook

Research into movements like the FEM delivers great insight into how contemporary social groups that are dealing with fringe topics and are widely opposed give meaning to their worldviews. In general, the issues of conspiracism, anti-science stance and creationism provide a wide array of future inquiries for sociological research. The spread of conspiracy theories can easily be followed if we take, for instance, the current Covid-19 pandemic (see e.g. Morgan, 2020). In this case, skepticism towards political authorities goes hand in hand with opposition to established science. The latter factor is, for various reasons, tied to trust issues and can also impact the constitution of meaning making processes for different groups in society (e.g. anti-vaccination, see Hornsey, et al., 2018). Creationism delivers insights into cultural practices of various belief systems stemming from it (see e.g. Coleman & Carlin, 2017).

In direct connection with FE, possible future inquiries could deal with following the FEM on other continents than North America. FE events in 2019, for example, took place in Europe and South America as well. They will most likely come back to these places and could deliver different aspects on the phenomenon. Generally, it will be a key issue for the FEM to continue their content spread against the attempt to shut them down, which already began about a year ago. Probably more from a sociology of scientific knowledge (see Bloor, 1991) perspective, (ethnographic) research into the particularities of FE experiments could deliver interesting insights into flat earthers´ experimental practices and where to locate their results in a scientific discourse.

Other than following conferences, experiments and similar face-to-face meetings, the broad spectrum of online FE material is worth investigating into, especially because of its rapid spread and possibility for focus shifts due to quick exchanges. Videos, forums, blogs and the likes therefore deliver a multitude of possibilities for sociological online research. An online approach could not only show how the movement builds up its networks and facilitates its content but also deliver insight into how flat earthers are perceived and reacted to publicly.

A specific aspect of the movement, which I found to be intriguing for future inquiries, was the variety of movie references used by flat earthers. An investigation, for instance, on the influence of fictional narrative on constructing conspiracy theories like FE could deliver fruitful insights into how narratives construct worldviews.

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Appendix

Interview Guideline

Introduction

This interview is about your personal and professional connection to the community of flat earthers, which also includes your role as a speaker at this year´s international flat earth conference. You can elaborate on my questions in a broad context so please don't hold back to tell me everything that comes to your mind during our conversation.

1. When was your first contact with the conjecture that the earth is flat?
   -> Follow ups: Elaboration on specific situation(s).

2. In which way did your life change since you are a member in the flat earth community?

3. In which way are you contributing to the flat earth community?
   -> e.g. Experimental practices, posts, blogs, etc.

4. What role does social media play in your personal and professional life?
   -> Role of social media in the FE community and communication about FE in general?
   -> To what extent does knowledge about the earth being flat derive from social FE?

5. Why do you think is the view of the world being a globe so commonly accepted?

6. What do you think about the methods that were used to establish a worldview that the world is a globe?
   -> Do you think that scientists truly believe that the earth is a globe? - If not, what is the agenda in publicly concealing that the earth is flat?

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DEBUNKING FLAT EARTH 101:

1. Never forget… we used to be you:

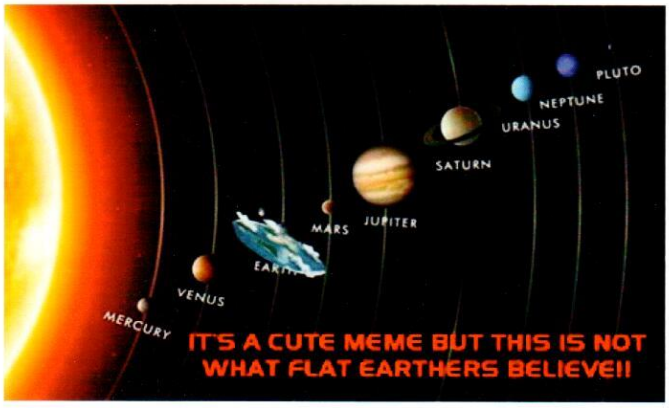
   - **We had the same indoctrination you did.**
   - **We went to the same schools.**
   - **We read the same books.**
   - **We've seen the same movies, television shows and documentaries.**
   - **We've been to the same museums.**
   - **There's no question you are going to ask that we haven't already asked ourselves. So, you're not going to stump us with that "amazing" piece of "evidence" we haven't already thoroughly considered and investigated.**
   - **We ALL started out as skeptics!**

2. None of us belong to the "Flat Earth Society" so don't go there for information about us or our beliefs!

   - **This event was NOT sponsored nor put on by the Flat Earth Society. We have no affiliation with them.**
   - **So STOP going to the Flat Earth Society website and cherry-picking the most ridiculous claims they make and associating them with us as if that's what we believe!**
   - **Even though the Flat Earth Society website may contain some good resources, many of us consider it to be "controlled opposition" and/or just a joke.**
   - **None of us woke up one morning looking for some club (or cult) to join.**
   - **We don't all agree about everything and there are several different Flat Earth models.**
     - **The one thing we do all agree on is the Earth is not a spinning ball.**
   - **This is a leaderless "movement" of independent researchers.**
     - **Judge each of us on the merits of our own work and beliefs.**

3. You don't know anything more about "gravity" than we do – and NONE of us believe in the upward floating disc theory of gravity!!

4. You can't just insert Flat Earth into the Copernican model of the Universe. **We do NOT believe this:**



5. Relax! No one is falling off the edge of anything.

   - **Google coastline of Antarctica:**

6. If you consider yourself to be an "investigative reporter" or a "journalist," then you need to do at least SOME research into the founding of organizations like NASA, DAPRA, JPL, the Freemasons, Nazis, etc.

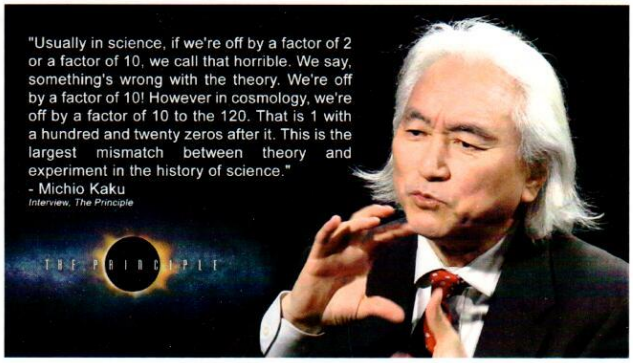
   - **Look into Project Paperclip**
   - **Research Jack Parsons, L. Ron Hubbard, Aleister Crowley, etc.**
   - **Look into Admiral Byrd, Project High Jump and Operation Deep Freeze**
   - **Look into Project Fishbowl and Operation Dominic**
   - **Study the Antarctic Treaty**

7. Learn what a fish-eye lens is and what it does to images! Example:

8. Most of your "Top ___ Reasons" for why we allegedly "know" the Earth is a globe are very easy to debunk.

9. Realize you don't actually have a working map or model either.

   - **They say we've allegedly "known the Earth is a globe" for over 2,000 years (citing characters like Pythagoras, Eratosthenes, Aristotle, etc.). And yet, we have over 200 "projection maps" of the Earth and <u>none</u> of them are accurate.**
   - **Big Bang Cosmology is rapidly going bankrupt. Major scientists like Neil deGrasse Tyson and Michio Kaku admit to being "96% stupid" and "off by 10 to the 120th power" when it comes to our understanding of the cosmos.**
   - **You've had over 2,000 years and a budget of more than $50 million per DAY for over 50 of those years and yet you still haven't figured it all out. Therefore, it is entirely unreasonable for anyone to expect us to provide a 100% accurate working map and model - especially considering we've only had about 5 years and no money or resources.**



10. The Bible is a Flat Earth book from cover to cover and virtually every ancient culture believed in a Flat Earth model for over 4,000 years.

    - **Many, but not all of us come at this from a Biblical perspective.**
    - **This is NOT a religious movement but an interesting side-effect of getting into this research is that many suddenly realize there has to be a Creator.**

Appendix C - Conference Name Tag