INSTITUTO
UNIVERSITÁRIO
DE LISBOA

# American and Chinese Urban Youth: Values and Behaviors Toward the Environmental Crisis - A Qualitative Analysis of Students in New York and Shanghai

Sarah Owen

Master in Sociology

Supervisor:
PhD., Magda Nico, Assistant Professor,
Iscte-University Institute of Lisbon

November 2021

SOCIOLOGIA
E POLÍTICAS PÚBLICAS

Department of Sociology

# American and Chinese Urban Youth: Values and Behaviors Toward the Environmental Crisis - A Qualitative Analysis of Students in New York and Shanghai

Sarah Owen

Master in Sociology

Supervisor:
PhD., Magda Nico, Assistant Professor,
Iscte-University Institute of Lisbon

November 2021

ACKNOWLEDGEMENTS

I had toyed with the idea of pursuing a master's degree ever since I completed my bachelor's degree. The timing never felt quite right. That was until I found myself relocating from New York to Lisbon, and decided to search for academic options in Europe. I still consider it a divine moment when I discovered ISCTE, for the first time ever, established a Master's in Sociology course in English that very year. I am forever thankful to Professor José Luís Casanova for taking upon that decision and responsibility, and changing the course of my life as well as my fellow master's colleagues. It's rare in life that things line up so squarely, but I'm grateful that they did and that this academic adventure came to fruition.

This work would not have been possible without the support, enthusiasm, and guidance of my supervisor, Magda Nico, who made this academic journey all the more worthwhile. Her sociological wisdom, emotional intelligence, and intellectual curiosity pushed me—and motivated me—to dive deeper into my research and systemize my thinking.

A special thanks to my co-supervisor, Ann Nilsen whose guest lecture at ISCTE introduced me to the world of research design, setting a very high benchmark and elucidating the process so clearly. I'm also grateful for the support, advice, and suggestions from a handful of bright minds, including António Firmino da Costa (I'm so glad I got a semester with you before you retired), João Sebastião (for guiding me on developing my research question), and Richard Lachmann (who was never too busy for a Zoom call, rest in peace).

Lastly, my dearest husband, who has been my rock for the last two years of this journey. There were times when I simply thought I couldn't juggle work and study, but you made me believe in myself and continued to encourage me. The gratitude I have for you is infinite.

## ABSTRACT

Environmental problems have been increasingly  seen as behavioral and cultural factors, not just technological and economic. What's more, sociology is uniquely positioned to be a leader in the environmental conversation. This dissertation aims to contribute to the growing body of research on environmental sociology with the aim of understanding how people's values may influence their climate actions. To identify and discern young people's belief towards environmental issues, 14 in-depth qualitative interviews were conducted with participants in the United States and China. The results of this exploratory study found six analytically distinctive themes on which Chinese and American participants diverge in terms of their values and behaviors towards climate change. Additionally, a seventh theme was discovered that underscores a unifying commonality where the two groups converge with regards to how they view and engage with climate matters.



## KEYWORDS

Environmental Sociology; Risk Society; Youth Values; Cross-cultural Comparison, Qualitative Analysis

## RESUMO

Os problemas ambientais têm sido cada vez mais encarados como fatores comportamentais e culturais, e não apenas tecnológicos e econômicos. Além do mais, a sociologia está posicionada de forma única para liderar na agenda ambiental. Esta dissertação visa contribuir para o crescente corpo de pesquisas em sociologia ambiental com o objetivo de compreender como os valores das pessoas influenciam suas ações climáticas. Para identificar e discernir as crenças dos jovens em relação às questões ambientais, foram realizadas 14 entrevistas qualitativas aprofundadas com jovens nos Estados Unidos e na China. Os resultados deste estudo exploratório encontraram seis - três para cada país - temas analiticamente distintos nos quais os participantes chineses e americanos divergem em termos de seus valores e comportamentos em relação às mudanças climáticas. Além disso, um sétimo tema destaca uma semelhança unificadora onde os dois grupos convergem no que diz respeito a como eles vêem e se envolvem com as questões climáticas.



## PALAVRAS-CHAVE

Ambientalismo Sociologia, Risk Society, Valores Juvenis, Comparação Transcultural, Análise Qualitativa

**INDEX**

# INTRODUCTION

*"There's a whole new issue with COVID on top of the climate crisis. That's why it's so horrible here because we're always talking about freedom, freedom, freedom and never asking at what cost. Americans are always concerned with their rights but never their responsibilities."*
David, 23-years-old, male, New York

Environmental issues know no national borders. Climate change and environmental degradation are arguably two of the most pressing matters confronting sociologists today (Nilan 2011). Ulrich Beck's *risk society* opened the way for sociological discussion on how societies adapt to their socially constructed natural environment and all the environmental issues thereby implied (1992). These ongoing issues are reducing the capacity of the environment to meet ecological and social necessities. In many areas of the world, they affect the material conditions of young people's lives, while globally they impact youth politics and activism (Nilan 2011). Research has indicated that values indirectly influence environmental behavior through specific attitudes and beliefs (Gärling et al. 2003), and that progress can only be made on environmental issues "through a concerted effort to change personal and social norms" (Kinzig et al. 2013:164).

According to Hoffman (2015), "environmental problems are not primarily technological or economic, but behavioral and cultural" (p. 15), emphasizing the importance of sociological inquiry in this subject. Furthermore, the study of people's values and actions in relation to environmental issues is critically important in creating behavior change. According to estimates, even if as few as 10 percent of the population were "consistent and inflexible" in their pro-environmental beliefs (Chi 2011), there could be a breaking point where those behaviors become pervasive (Kinzig et al. 2013).

Although environmental issues do not respect national borders, national contexts do

produce different experiences of awareness and policy on these issues. This exploratory study aims to identify the values and behaviors of urban American and Chinese higher university students as they relate to the environmental crisis. The decision to study the United States and China was based upon two key reasons, firstly, what they have in common. With regards to climate change issues, China and the U.S. are prominent case studies due to the fact that they are disproportionately responsible for the planet's greenhouse gas emissions (Jamelske et al. 2013). In 2012, China had the world's highest annual CO2 emissions from fossil fuels, followed by the U.S., together constituting 41.6 percent of world fossil fuel-based CO2 emissions (Boden et al. 2013). Giddens also furthers the importance that the U.S. and China have in studying this topic. "The future of the world's climate lies to some large degree in the hands of two nations alone—the U.S. and China—since they contribute between them such a high proportion of the world's greenhouse gas emissions. Both are restlessly scouring the world for energy supplies to fuel their economies" (2009:14).

Secondly, the countries differ with regard to how they approach environmental issues. Studying the United States and China may surface relevant findings that advance the debate on structure and agency. According to Nilsen, "comparing data from two countries allows for the examination of how structural circumstances and individual actions shape young people's values and behaviors towards the environment" (2002:162). Although the United States and China have significantly different cultural, socioeconomic, and political histories, this cross-cultural exploration may indicate the social conditions that favor reflexivity and conformity.

This research aims to contribute to the growing sociology of youth and environmental studies from a different point of view. On one hand, recent literature is very focused on social movements as the frequent link between these two topics. This research went in a different

direction to understand the most invisible, daily-based, micro-sets of beliefs, values, and practices. To do so, this research also escaped the most frequent strategy to study social values: using European and World Wide surveys that began in the 1990s and run until this day. As guidelines continue to be developed to offset greenhouse gas emissions and reduce anthropogenic pollution, the results of this study may allow environmental policy makers to better understand the cross-cultural perspectives of urban youths' values and behaviors towards climate change, and engage them accordingly. Most importantly, sociology is uniquely positioned to be a leader in the environmental conversation due to "its attention to the interactive dimensions of social order between individuals, social norms, cultural systems, and political economy" (Norgaard 2018:1).

As a result, my research question was framed around two key inquiries:

*To what extent do students in urban cities in China and the U.S. hold different views on the environmental crisis? Does their context such as social systems and values, and public policies impact their values on the environmental crisis?*

This paper will review the relevant literature to establish current theoretical concepts related to the research topics. It will then describe the methodology used to investigate the research question, touching upon data collection and data analysis, as well as a methodological discussion. After presenting the details of the findings, it will conclude with a discussion that synthesizes the entire research process.

This qualitative research identified six analytically distinctive themes on which the Chinese and American interviewees in this study diverge in terms of values and behaviors towards environmental concerns. For American youth, the key themes that captured their values and behaviors on environmental issues included: *Questioning Systems, Corporate Distrust*, and

*Technosalvation*. On the other hand, the interviewees with Chinese participants culminated in the following themes: *Government Power, Materialistic Values*, and *Spatial-Temporal Risks*. The seventh theme highlighted the convergence of values and actions between Chinese and American students, referred to as *Selective Attention* & *Micro-activism*. This unifying theme showed how, despite global barriers and contexts, young people respond to climate change through compartmentalization and micro-actions—or as Norgaard refers to it, 'focusing on something you can do' (2006).

The main purpose of this exploratory study is to address the current knowledge gap in relation to young people's values and actions towards the environmental crisis. This sociological investigation conducted over the last 18 months was motivated by a similar position as Hoffman (2020): "We cannot develop solutions to address climate change without first facing and changing the beliefs and values that have led to them" (p. 15).

## LITERATURE REVIEW

*"The debate over climate change in the US and elsewhere is not about carbon dioxide and greenhouse gas models; it is about opposing cultural values and worldwide views through which that science is seen."*
(Hoffman 2020:5)

While no individual study has been solely dedicated to examining American and Chinese urban youths' values and behaviors toward the environmental crisis, previous literature has covered significant ground in advancing knowledge on the cross-cultural differences between both countries. Studies have also focused on young people's engagement with climate issues. However, understanding individual emotions towards environmental issues—and how these define people's engagement—has been acknowledged as the missing link in the development of a sociological imagination (Williams and Bendelow 1997, as cited in Norgaard 2006).

Additionally, and perhaps more importantly, given the timeliness of new and evolving attitudes towards global heating (Watts 2018), there is increasing evidence pointing towards a discontinuity between knowing about climate change and changing behavior to help mitigate it (Wolf and Mose 2011). It should be noted that this asymmetry exists, for instance, between behavioral intentions and the actual effects of behavior in relation to emission reductions (Wolf and Mose 2011). The current behavior mainly consists of minor actions that, despite representing positive steps towards environmentalism, barely reduce greenhouse gas emissions (Whitmarsh 2009).

### *Attitudes and Behaviors*

With regards to climate awareness, perceptions, and beliefs, researchers have found a gap

between apprehension and behavioral change (Jamelske, Barrett and Boulter 2013). The study compared climate college students in the United States and China and discovered that a substantially larger proportion of Chinese students accepted the considerable scientific consensus regarding anthropogenic climate change compared to a smaller proportion of U.S. students who reported seeing a risk of harm to humans as a result of climate change. Moreover, while Chinese respondents exhibited greater support for domestic policies that aligned with—or resulted in joining—international agreements addressing climate change, a higher proportion of U.S. students reported being unconcerned about the climate crisis compared to their Chinese counterparts (Jamelske et al. 2013).

Beyond cross-cultural examination, domestically bound studies such as Yale's *Global Warming's Six Americas* have provided further insight into the current progression of attitudes regarding environmental issues (2021). Among the most recent climate change-related research, the study segmented the U.S. public into six distinct audiences. Comparing survey data from 2008 and 2020, the analysis categorized individuals based on how they responded to the issue of climate change. From the six segments—alarmed, concerned, cautious, disengaged, doubtful, and dismissive—the percentage of 'alarmed' Americans increased from 17 percent in 2008 to 26 percent in 2020, underscoring the growing worry and importance people are placing on matters of the environment.

Researchers such as Laidley (2013) have contributed knowledge on whether pro-environmental attitudes are in fact a 'classed' issue. Using Bourdieu's theory of culture (1984), Laidley conducted empirical research with 40 individuals in the U.S. to explore their perceptions of climate change based on social class. He found that although respondents with lower economic capital affirmed the severity of climate change, they viewed it as exaggerated

when compared to individuals with higher economic capital (2013). Similarly, Strandbu and Krange (2003) set out to understand the extent to which class differences play among young people who have a strong affinity to the environmental movement. One of their key findings was that working-class youth had to overcome a number of 'symbolic fences' in order to become part of an environmental organization.

Besides considering the possible effects of social stratification, it is also imperative that researchers understand cohorts of youth within their own socioeconomic and political milieu (Nilan 2011). On a macro, political level, the Chinese government has outwardly stated that climate change is real and is an issue of great importance (NDRC 2012), while the American government, specifically under the Trump administration (at the time of the initial research for this thesis), argues that global warming is based on faulty science and manipulated data (De Pryck and Gemenne 2017). These two diverging political stances are bound to capture and dictate some of the overarching values, norms, and behaviors adopted by young people, despite President Joe Biden's stance to take more affirmative climate action within his first term.

*From Structure to Agency*

In the 1990s, sociologist Michael Hechter led an interdisciplinary effort between social scientists, psychologists, and biologists that resulted in the book, *Sociology and Economics: Controversy and Integration*. Hechter (1993) posited that the study of values contained four obstacles: "(a) values are unobservable, (b) current theories give little guidance for understanding how values shape behavior, (c) behavioral explanations are unconvincing when the process that generates values is unknown, and (d) there are difficult problems with measuring values. Over a

decade later, Hitlin and Piliavin added two other impediments: 1) “values are often conflated with other social psychological phenomena, and 2) values have historical and cultural variability in their content” (2004:360).

Within research that has compared Western and Eastern societies, literature identified, in the 1990s, the individualist-collectivist dimension as being one of the most common emphases in cross-national research (Markus and Kitayama 1991; Triandis 1995). This dimension, however obvious in its apparent dichotomy, proves important in understanding how young individuals are affected—even if indirectly—by the overarching socioeconomic and political values informing their societies. Anthony Giddens (2009), for instance, citing David Shearman and Joseph Wayne Smith, proposes that democratic states are too influenced by materialism and sectional interests to create substantial policies that could efficiently address the most pressing climate crisis-related challenges we face. “Some environmentalists argue that liberal democratic societies are not equipped to cope with ecological problems, especially climate change, given the far-reaching character of the social and economic reforms that will be needed” (Giddens 2009:73).

Expanding on his hypothesis that tackling climate issues will require a more authoritarian approach from government, Giddens specifies that political ideology is insufficient as “government must not only be an agent of change as far as combating global warming is concerned; it must be an exemplar too” (2009:117). He also extends responsibility to the private sector stating that corporations, not just nation states, must also fulfill their obligations in reducing emissions and avoid “greenwashing” that misleads the public (2009:118).

Other research examining cross-cultural differences has also identified a distinction between materialist and postmaterialist values, underlying the transformation of modern societies into postmodern societies (Inglehart 1995). Materialism plays an important role in evaluating

environmental choices, which in turn are affected by history, social economy, and culture (Belk 1985). China's shift towards becoming a more market-oriented economy has given way to the acceleration of materialistic culture. Data from the 1990 World Values Survey shows that 'materialist values' in China rank the highest (51 points) of any country in the world, especially compared to the U.S. which has an average materialistic score of 16 points (Inglehart 2003). In the most recent World Values Survey, 48.7 percent of Chinese respondents were categorized as 'materialist' compared to only 14.4 percent of Americans (2020). For Sun and Wang, "it is clear that younger generations in China have become more individualistic and secular than older generations" (2010:79). Despite being the largest developing country in the world, China is still considered to be a developing society. According to Giddens, for tension related to inequalities not to worsen, poorer nations—which might excuse China in that case—"must have the chance to develop, even if such a process raises emissions, for a period quite steeply" (2009:9).

Subtle behavioral patterns exist within this set of postmaterialist values. Sun and Wang (2010) found that younger generations in Shanghai were more likely to nominate self-development as being the most important life priority and political engagement as the least important. This is supported by research by Yu (1997) who concluded that Chinese college students showed awakened individualism, heightened self-awareness, and a stronger sense of independence. In contrast, a separate study shows that U.S. students rated the economy higher than the environment as a government priority (Jamelske et al. 2013). Wolf and Mose (2011) went as far as postulating that this may be in part due to the lack of urgency in how younger demographics perceive climate change.

Numerous studies have identified a correlation between social structure and individual values, indicating that values may operate at the level of individuals, institutions, and entire

societies (Schwartz 1993). According to Hitlin and Piliavin (2004), there has been little sociological work focused on either the nature of individual value systems or values in action since the mid-1960s. Yet, the work would represent a paramount contribution considering "actions are shaped in part by deeply-embedded (but not static) cultural and societal norms and values" (Adger et al. 2009:344).

Researchers have also found that behaviors may also be influenced by more than one value (Bardi and Schwartz 2003) and empirical evidence shows that behavioral change can be made by changing core values (Ball-Rokeach et al. 1984; Rokeach 1973). This was examined by Rokeach (1973) who found that "when individuals find their value rankings are divergent from positive reference groups and are closer to negative reference groups, they are more likely to shift both values and behavior" (Hitlin and Piliavin 2004:381).

*Risk societies across time*

Climate breakdown and the environmental crisis are considered to be one of the accumulated risks present in modern societies. There is a high level of scientific consensus according to the vast majority of peer-reviewed scientific literature as well as the Assessment Reports produced by several hundred leading scientists involved in the Intergovernmental Panel on Climate Change (IPCC 2021). These two points are sufficient cause for alarm. First, the historically unprecedented increases in global average temperatures observed in recent decades can be attributed in very large part to the production of greenhouse gases from human activities; and second, an increase in global average temperature will affect weather and hydrological cycles in ways that have direct implications for human wellbeing. The latest report disseminated by the

Intergovernmental Panel on Climate Change plainly states that “human influence has warmed the climate at a rate that is unprecedented in at least the last 2000 years” (2021:6), and that “global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered” (2021:14).

Both Anthony Giddens and Ulrich Beck are sociological risk society theorists who have contributed significant knowledge exploring people’s behavioral responses towards threats stemming from environmental issues. Giddens advances the concept of the *Giddens’s Paradox*, the idea that by the time people experience the negative effects of climate change, it may be too late. He argues that "...since the dangers posed by global warming aren’t tangible, immediate or visible, in the course of day-to-day life, however awesome they appear, many will sit on their hands and do nothing...about them" (2009:2). For Giddens, the problem of human-induced climate change has no precedent and therefore makes it difficult for people to accept it as both an urgent problem and a reality (2015), reducing it to “a back-of-the-mind issue rather than a front-of-the-mind one” (Giddens 2009:2). While Giddens believes people’s spatial and temporal relationships to climate change impacts their level of concern, Swim et al (2010) argue other factors associated with history, cultural beliefs, and political culture also influence our perceptions and responses to risk.

Similarly, Beck—while focusing on the global interconnectedness of values and attitudes—categorizes the current phase of modernization as the *risk society*, “an inescapable structural condition of advanced industrialization” (1996:31). He argues that climate change propels a “cosmopolitan momentum” that goes beyond national borders, creating a sense of dependency and interconnection (2010). This increasing systemic interdependence of global business, agriculture, and politics makes it more difficult to pinpoint any “isolable single causes

and responsibilities" (Beck 1992:32). Beck demonstrates how easy it is to externalize responsibility when operating in such systems. When faced with a threatening ecological catastrophe, the metaphorical "hot potato" (1992:33) is passed around as individuals find refuge within the system. He also posits that people respond through one of three reactions: denial, apathy, or transformation (2010). Transformation as a response is particularly interesting given that Beck believes it specifically raises questions pertinent to the *risk society* concept: "how does the anticipation of a multiplicity of manmade futures and its risky consequences affect and transform the perceptions, living conditions and institutions of modern societies?" (2010:48). Moreover, the perception of risk is suppressed by what Beck refers to as "the tangibility of need" (1992:45), as people prioritize the present. This has been similarly termed by Giddens who referred to it as *future discounting* (2009).

> *Where everything turns into a hazard, somehow nothing is dangerous anymore. Where there is no escape, people ultimately no longer want to think about it. This eschatological eco fatalism allows the pendulum of private and political moods to swing in any direction. The risk society shifts from hysteria to indifference and vice versa.* (Beck 1992:36-37)

If the risk society thesis helps to support a macro-theoretical framing of the climate breakdown, the argument, according to Mythen (2007), has some practical deficiencies. Mythen calls for further academic analysis of how theoretical aspects of risk society are empirically investigated; an insufficient body of research exists that this thesis intends to expand. Comparably, Norgaard's 2006 sociological inquiry set out to do this as well, collecting ethnographic information on the emotional strategies people adopt to avoid thinking about climate change.

Norgaard's 2006 study, which focused on 46 Norwegians between the ages of 19 and 70

years old, found that those interviewed, despite being well informed and concerned about global warming, did little to translate their environmental concerns into action. For Norgaard, this observed *collective distancing* helped to explain nonresponse and nonaction as a social process, categorizing responses into three key strategies: "Selective attention by either, a) Controlling exposure to information b) Not thinking too far ahead, c) Focusing on something you can do" (2006:385). The second response —'Not thinking too far ahead'—was also highlighted by Norwegian sociologist Ann Nilsen who found that young adults kept uncertainty "...at bay by not looking too far ahead, neither in time nor in space" (1999:181). Uncertainty, specifically related to climate change, can manifest as a justification for inaction or delayed action (Gifford 2011:292).

Although some of the variables and theories discussed suggest that confronting the environmental crisis can appear insurmountable, Giddens sees solutions emerging through "bubble up" movements (2009). "To emphasize the importance of the state to climate change policy is not to argue for a reversion to top-down government. On the contrary, the most dramatic initiatives are likely to bubble up from the actions of far-sighted individuals and from the energy of civil society" (Giddens 2009:5). Similarly, Davidson (2012) optimistically advances the idea that these "proportionally small but numerically large number of individuals…" will "...make a disproportionate impact on the likelihood for, and nature of, transitions to post-carbon social systems" (2012:618).

Furthermore, researchers have also noted that technological advances "will be vital to our chances of cutting greenhouse gas emissions" (Giddens 2009:5). Meanwhile, being too reliant on technology may actually inhibit people from acting. According to Gifford (2008), there are seven psychological barriers that limit people from acting on climate change, one of those being an

ideology titled *technosalvation*. Informed by his data collection and interviews, Gifford stated that subjects with "overconfident beliefs in the efficacy of technology appear to serve as a barrier to their own climate-mitigating behavior." (2011:293).

A commonly agreed upon observation is that the climate crisis threatens the current economic and political systems (Klein 2014). According to Beck, "what thus emerges in risk society is the political potential of catastrophes" (1992:24). The largest scientific study to investigate climate anxiety in young people was published in 2021 by researchers at the University of Bath. The study, titled *Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon*, found that the daily lives of 45 percent of global youth are affected by climate-related worry and stress.

More importantly, the researchers at the University of Bath discovered a significant correlation between climate anxiety and perceived inadequate government response and associated feelings of betrayal. Overall, the data—collected by surveying ten thousand young people between the ages of 16 and 25 across ten countries—showed that 83 percent of respondents believe "people have failed to care for the planet" while 75 percent of youth find the future frightening (2021). In order to shape efficient engagement and behavior towards the resolution of environmental issues, trust and reliance between people and their political system are paramount. According to Gifford, when trust is absent between the public and the government, resistance can emerge and negatively impact pro-environmental behavior change (2011).

## METHODS

In this section, I outline my research process, including details related to recruitment, sampling, data collection, and coding procedures, as well as other methodological findings. Due a lack of empirical, qualitative data available in relation to my research question—the understanding of the invisible environmental values and how these impact in micro but daily (positive or by default) actions related to the environment—I opted for a qualitative method, conducting semi-structured interviews with students from America and China. The goal of this research is to answer the research question, '*to what extent do higher education students in urban cities in China and the U.S. hold different views on the environmental crisis*?'. Contributing to answering this question engages with the debate on agency and structure, values versus attitudes, and action in a political and socio-economic context. In doing this, similarities and differences can be drawn from two powerful—and negatively impactful, environmentally speaking—nations.

### *Data Access and Collection*

With the aim of collecting data that was easily comparable, I interviewed 16 participants from similarly ranked universities in Shanghai and New York City between February 2021 and May 2021. In terms of the sample demographic breakdown, I interviewed eight Chinese and eight American participants aged between 20 and 26-years-old, all with at least one parent who had gone to university. Sadly, during the course of my thesis process, my laptop was stolen, so I

lost two of the video interviews that had taken place. As a result, this reduced my sample of data to 14 participants instead of 16.

To achieve heterogeneity in the sample, I had to extend my search outside of my two initial universities, Fudan University and New York University. Given the difficulty and barrier of accessing Chinese information, I used a variety of methods to locate and recruit potential interviewees. I initially relied on the snowball method to generate "a field sample of individuals possessing the characteristics of interest by asking initial contacts if they could name a few individuals with similar characteristics who might agree to be interviewed" (Lofland and Lofland, 1995:43). This process required me to download and install localized communication platforms such as WeChat, a popular social media app in China, to effectively source and communicate with participants. Leveraging this social network gave me further insight into their lives, as some participants posted climate-related content that expressed their values and behaviors. Where possible, I captured multiple screenshots of their posts on WeChat which indicate their desire to socially share and disseminate this content to their peers on the platform (Appendix 1.1). This new form of digital data helped me further contextualize the interviews during the data analysis stage.

For recruiting participants in both cities, I also used the geolocation function on the social media platform, Instagram to find students who are tagged either New York University or Fudan University and reached out to them directly via Instagram's 'Direct Message' tool. Lastly, I kept a digital catalog and organized a folder of the screenshots of the respondent's social media posts in order to help me supplement or schedule interviews. I was guided by a format suggested by Przybylski (2020) who documented an example of how to collect, organize, and structure

interviewees' social media assets. Digital adaptation to the research characteristics was a necessity but also an opportunity.

I followed a semi-structured interview script to ensure I maintained a level of comparability in the data. The interviews lasted between 45 minutes to 90 minutes and were conducted over Zoom, the video conferencing platform. When devising my interview questions, I initially looked at other similar survey scripts to understand how different researchers approached studying this topic and the key dimensions that they focused on. For example, the OECD's list of Key Environmental Indicators helped me centre some of my interview structure around specific dimensions such as climate change, air quality, waste generation, and energy resources (2008:8). Inspiration for the development of the questions came from quantitative surveys such as the *World Values Survey* for example, where questions about the level of self-reported accountability and responsibility for climate social change are measured. After starting with classic socio-demographic data (sex, age, nationality, university, family structure, and social background), I then built my interview questions (Appendix 1.2) around those key environmental dimensions and added on other pertinent dimensions, such as the COVID-19 pandemic.

Throughout the interview process, I was mindful that "a defining attribute of a semi-structured interview is the discovery of relevant questions" (Nelson, Abendroth and Lynch, 2013:46), allowing room for those questions to emerge in natural and sometimes surprising ways. For example, when I asked a Chinese interviewee: *How do you view your society's relationship with consumerism*?, they answered with an interesting example of how a contest took place in China where popular celebrities were featured on a bottle of milk with a special code so consumers could vote for their favorite idol. However, what ended up happening was

that people were just buying the bottle and throwing the milk away after getting the code. This turned into a very insightful conversation about the interviewee's views on how the government ended up punishing the program behind the contest and what that meant in terms of China's changing values of consumerism. This method of interviewing allowed me to collect data that revealed not just the information and details of their values but also "the culture of the person being interviewed" (Nelson et al. 2013:45). This is ever more important since neither my place of birth and upbringing, nor my current place of living, coincides with either of these countries. This culture-sensitive approach is a demand of cross-cultural comparative research.

While I aimed to incorporate friendly conversations within my online interviews, I struggled with building the type of rapport that sometimes comes through physical interaction (Spradley 1979). I did, however, adopt Spradley's approach of integrating friendly conversation throughout the online interview process to ensure it didn't feel like an overly rigid or "formal interrogation" (p. 464). This worked well in two cases where we even shared laughs and built up a friendly rapport, continuing to 'follow' each other on WeChat. I found the process of oscillating between friendly conversation and more formal interviewing quite natural, an interaction which was informed by my previous experience as a journalist.

In addition, I used secondary data from the ISSP and the World Values Survey to add context about individuals as well as broader social patterns. I also analyzed the Generation Gap Survey in Shanghai, China, which was the first and largest sociological investigation ever conducted regarding attitudes and value changes by age groups in Shanghai, China (Sun and Wang 2010).

**Table 1. Characterization of the interviews (N=14)**

| Name | Age | Gender | Education Level | University | Residence |
|---|---|---|---|---|---|
| Jessica | 21 | Female | Bachelor's degree | New York University | New York City |
| Matt | 25 | Male | Bachelor's degree | Fordham University | New York City |
| Cara | 22 | Female | Bachelor's degree | New York University | New York City |
| David | 23 | Male | Bachelor's degree | New York University | New York City |
| Tom | 21 | Male | Bachelor's degree | New York University | New York City |
| Michael | 22 | Male | Bachelor's degree | New York University | New York City |
| Emma | 24 | Female | Bachelor's degree | Fashion Institute of Technology | New York City |
| Lian | 23 | Male | Bachelor's degree | Fudan University | Shanghai |
| Sue | 22 | Female | Bachelor's degree | Donghua University | Shanghai |
| Lei | 24 | Female | Bachelor's degree | Fudan University | Shanghai |
| Jianyu | 20 | Male | Bachelor's degree | Fudan University | Shanghai |
| Chun | 21 | Male | Bachelor's degree | Fudan University | Shanghai |
| Suyin | 25 | Female | Bachelor's degree | Donghua University | Shanghai |
| Xiang | 20 | Female | Bachelor's degree | Fudan University | Shanghai |

*Data Analysis*

All interview data was audio-recorded and transcribed using an automated tool called Otter.ai. After the software transcribed each interview, I then manually reviewed each interview so I could check for any transcription errors or incorrect interpretation. To analyze the data, I followed a *thematic content analysis* technique that privileges the horizontal analysis of the interviews (per topic) instead of the vertical one (per individual). My goal was to find patterns, differences, and similarities. Given the amount of data generated from the 14 interviews, I used

computer-assisted qualitative data analysis software (CAQDAS), specifically MAXQDA, to facilitate the systematic coding and structuring of the raw data.

In order to transform the raw data into some loose findings or results, I opted for an inductive analysis. This process was highly interactive given that the nature of qualitative research is "labor-intensive and time-consuming" (Lofland and Lofland 1995:196). In the initial stages of my research, I may have underestimated just how intensive this process would be. I inspected my interview transcriptions and coded them line-by-line, constantly asking myself one of the questions Loftand and Lofland cite by Strauss and Corbin: "What is this? What does it represent?" (Lofland and Lofland 1995:201).

For the indexing and coding processes, I adhered to the suggestion by Atkinson et al. (2001) of rereading my notes and transcripts to identify regular situations or keywords that correspond to emergent themes or categories. After reading Whyte's (1982) chapter on 'Interviewing in Field Research', I followed his advice carefully, in part due to his insightful warning: researchers "may spend endless hours of reading and rereading his notes unless he has devised some effective manner of indexing them" (p. 185). Although my notes were organized chronologically in terms of when I did each interview, I also used highlighter pens to color code emerging themes and match them back to relevant elements within my transcriptions. Following my interviews, some clear themes began to emerge, such as the importance given to peer influence with regard to environmental actions, as well as the critical role social media platforms have in disseminating environmental information.

In my coding process, I ensured I moved beyond simply summarising the data, interpreting each interviewee's meaning and trying to make sense of it (Braun and Clarke 2006). Neuendorf (2017) described content analysis as the objective, systematic, quantitative analysis of

the characteristics of a message. Using MAXQDA's code system, the initial coding categories were based on the key environmental dimensions framed in my interview script. When analyzing the data through those dimensions, I simultaneously allowed room for emergent themes to arise. Some of these themes included codes such as 'Eco Journey' when an interviewee would reference the influence or discovery aspect that led them to their current environmental values, or 'Collective Responsibility' whenever an interviewee would respond with a communitarian or collectivist type of attitude or belief. Throughout the coding process, I also wrote analytical memories to help me identify themes, capture notes, and track any relevant context related to my research question. In total, I documented 113 memos within MAXQDA.

After the data analysis process was completed, I had generated 519 individual codes that were segmented into 14 more focused themes (Appendix 1.3). To help visualize this data, I migrated those themes that were frequently referred to by interviewees into a table (Appendix 1.4) to study a more aggregated output of the data. During this stage of the thematic analysis, beyond identifying themes based on frequency, I also looked for patterns in the data that were interesting or related to my research question. I was conscious of not just summarising the data but also interpreting and making sense of it, ensuring the data was analyzed, not just summarized and organized (Braun and Clarke 2006). I also used the online visual platform, MIRO to create a mindmap of the dimensions that informed my analytical model that I used to guide my research question.

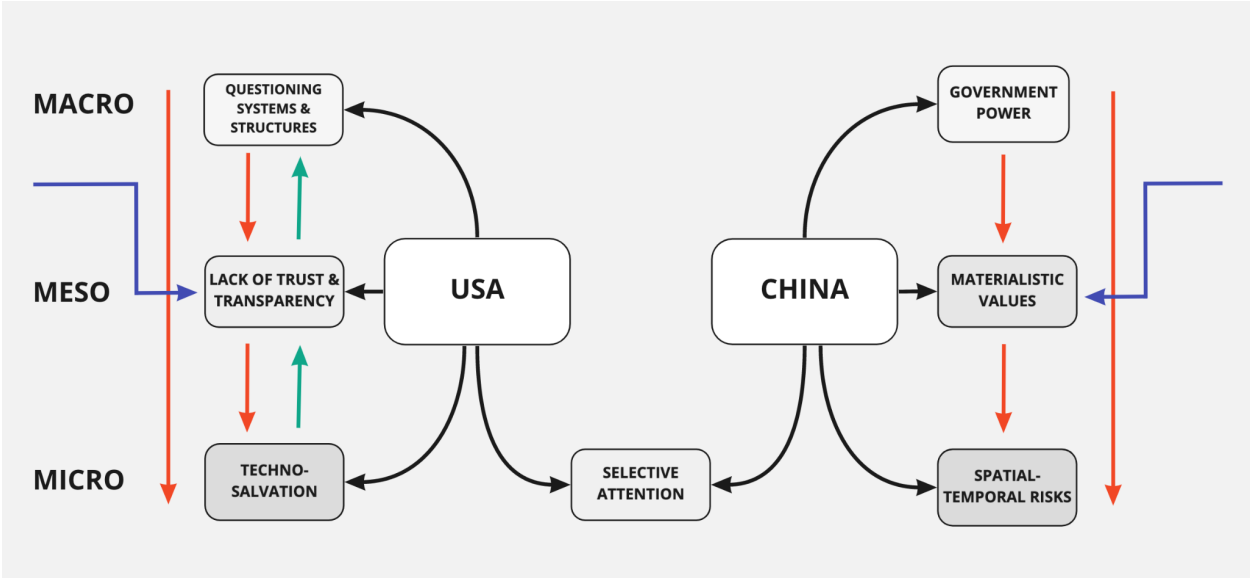
## RESULTS

The purpose of this research was to determine the values and behaviors of urban American and Chinese youth. This qualitative study addresses the following overarching and central research questions:

*1) To what extent do students residing in urban cities throughout China and the U.S. hold different views on the environmental crisis?*

*2) How does their socio economic, cultural and political context—namely social systems, norms, and public policies—impact their perception and values on the environmental crisis?*

**Figure 1. Environmental values in a structure and agency perspective (USA and China)**



Both the results and the analytical model can be found in Figure 1. Between the macro, meso, and micro dimensions, there is a downward arrow of impact. This indicates macro structures manifesting power over participants' values. While the blue arrow indicates the global influence on values, the red arrows specify the more traditional, deterministic model whereby social constructs, interactions, and structures influence individual behavior. The green arrow highlights how individual actions modulate collective values. This was evident in the interview data with American students who referred to the tumultuous events of the last year—from global social injustice to an infectious pandemic—as motivation in which they and their peers made certain changes, creating a ripple effect across social media platforms:

> *During the pandemic, one of my girlfriends started a sustainability account on social media. Before the pandemic she was not really into that kind of thing, like she was kind of an irresponsible consumer before this. Now she has this social media account, that's all about sustainable brands, even sustainable toilet paper. She's become this totally sustainable queen.* (Emma, 24, female, New York)

Mitigation and adaptation to climate change vary across young cohorts in China and the U.S. While it was reliably predictable that individuals belonging to different societies would respond differently to environmental concerns, the findings of this paper also revealed a core standout similarity. The analysis of the interview data resulted in six—three for each country—analytically distinctive themes on which the Chinese and American participants diverge in terms of their values and behaviors towards climate change. The object of this study is to present these differences in contrast with the unusual commonality where the two groups converged.

While none of the interviewees—Chinese or American—showed skepticism or repudiated the science underpinning the causes and effects of climate change, the means by

which they mitigated and adapted to it varied widely. Similar to Isenhour's study of how Swedes view climate change, when considering the U.S. and China data in aggregate, "it is apparent that nearly all research participants shared a common concern for climate change, the effect of toxic pollutants, resource depletion and the social and economic effects of scarcity and inequality" (2012:207).

The interview quotes were edited for grammatical clarity, and all names were replaced with pseudonyms to protect the interviewees' identities. The direct quotes below are intended to highlight and personalize the data.

***Macro Context: From Questioning (USA) to Complying (China)***

Many of the American participants voiced their concern, contempt, or frustration with the current political and economic system in the U.S. While some reference corporations, the police and the military, or the *system* in its entirety, respondents demonstrated a heightened awareness and level of knowledge towards the interconnected nature of structural forces affecting their societal structures. While no direct question was asked to ascertain their view concerning their government's management of the climate crisis, participants spontaneously expressed opinions on the matter nonetheless: *a lot of issues really intertwine*, or *the system needs to be reimagined a little bit more*.

These results align with the most recent *World Values Survey* which found that only 8.3 percent of Americans have "a great deal" of confidence in the government, compared to 47.6 percent of Chinese respondents (2020). Environmental issues are viewed as a symptom of larger problems in the United States, indicating the need for broader system reform.:

> *Some days I think a new system is needed. But I've been trying to figure out what that can be. I have a friend who is just totally off the grid. He's so anti-big business and anti-corporation and anti-government really. I think he considers himself a libertarian, which feels extreme. And I don't think we could ever get to that place. Some of the beliefs that he has I believe in as well. I think some form of socialism would work. And that sounds crazy when you say that, right? People think you're a communist. Seriously, it's like you think certain things could work? Like universal health care? Makes sense, right. But no, you're a communist. I think people should be able to go to the doctor if they're not feeling well, those kinds of things.* (Tom, 21, male, New York)

For Matt, the conversation covered various dimensions at a macro-structural level, including the questioning of economic systems, stating:

> *At some point, I think something's gonna have to give. It's clear that capitalism works for some, but it doesn't work for most. I'm a big proponent of the free market. I think it's great for innovation. I think competition is incredible for the landscape of business. But when you think about the free market, you don't think about the people that it affects. At some point we need to do more. It doesn't have to be like universal basic income; it doesn't have to be that extreme. But I think something beyond just basic welfare is needed.* (Matt, 25, male, New York)

He went on to express his frustration with political structures and policies, conveying his belief in the need for redistribution and police reform:

> *The priority isn't in saving the planet, the priority is in policing. And I think that's the conversation that isn't taking place. I always say defund the police all the time, but I haven't heard it as much anymore. But when I do hear it, the conversation is defund the police, but it's never defund the police for sustainability.* (Matt, 25, male, New York)

Several of the Chinese respondents commented on the importance of the Chinese Communist Party's power and impact on their values and actions. For Sue, a sense of pride transpired as she discussed the speedy recovery that followed the country's grave Covid-19 crisis:

> *I think because China is in a good place considering the rest of the world at the moment. Even though China started the pandemic, it was able to kind of manage it in a quick recovery time. And I think that's the same example as the noise pollution situation. They (the government) just told everyone to stay and follow the rules; and everyone just follows the rules.* (Sue, 22, female, Shanghai)

Some interviewees made statements related to the compliance of Chinese citizens, such as: *In China, people really rely on and listen to the government, and will actually take action because of them*, while other participants shared anecdotal stories highlighting the efficiency and efficacy of government initiatives in shaping collective behavior:

> *Seven years ago, the noise pollution was so bad in the city. Starting from 5am you could hear cars honking while driving. They (Chinese government) wanted to make sure we are seen also on a global scale. So they just started fining people within the week and said, 'if you are caught honking, in certain city areas, or within these hours, you will get fined'. And then it essentially just completely stopped.* (Suyin, 25, female, Shanghai)

Lei, on the topic of abidance, stated that:

> *The thought of getting financially fined, or getting a negative slap on the wrist is not a thing anyone wants.* (Lei, 24, female, Shanghai)

From July 2019, mandatory rubbish sorting was established in the city, with the government giving out heavy fines and/or social credit penalties (Allen 2019). In an interview with The Guardian, Geoffrey Chun-fung Chen, a lecturer in the department of China Studies at Xi'an Jiaotong-Liverpool University in Suzhou referred to the measure as a form of 'authoritarian environmentalism'. "It's not environmentally based consciousness from the bottom. It's a sort of eco-dictatorship," he explains, "a very strange but somehow effective mode of governance" (Chung-gun Chen 2019). The article reported that a month prior to the waste-sorting rules, China's president, Xi Jinping labelled trash sorting a type of "new fashion", and encouraged local governments to take action.

As a result, the recent waste regulations instituted in Shanghai were a central and recurrent topic among several interviewees:

> *In the last two years all the companies have been emphasizing that we are recycling and splitting all of our garbage, like food and the dry trash and everything. You actually get fined if you get caught. I think that's the one thing that is very China-specific; when something is negative and the government really wants to fix it, they essentially just make the results or the punishment very scary.* (Suyin, 25, female, Shanghai)

Furthermore, students in Shanghai displayed very detailed knowledge of the recycling and waste-sorting processes, demonstrating how seriously they took the new regulations:

> *In Shanghai, it is compulsory for every household to separate their garbage or trash into four categories. First we must sort the harmful type of trash. For example, batteries or some chemicals. Next is recycling like plastic. And the last two categories are wet trash like food and dry trash.* (Billy, 23, male, Shanghai)

### *Meso Context: From Corporate Distrust (USA) to Materialism Evolving (China)*

Respondents cited concern over the lack of trust and transparency they have in relation to climate science and environmental knowledge. The power of the private sector in the U.S. was a notable reference, with most participants expressing unease regarding the reliability—and accuracy—of information and messaging communicated by corporations.

> *It's like, we are told that we're the problem. When in reality, it's probably not. It's probably like Amazon and the military-industrial complex that's polluting. So I don't know, I think transparency is probably the big issue.* (Emma, 24, female, New York)

> *That makes me think of what Elizabeth Warren said. In one of the presidential debates she said, the oil companies want us to be fighting over cheeseburgers. The plastic straws, the flights, the cheeseburgers, and the recycling. Meanwhile, the grave damage is happening.* (David, 23, male, New York)

For some interviewees, the relevance and efficiency of behaviors towards matters of the environment were determined by access to reliable information; to act on dependable knowledge

versus believing corporate marketing at face value. Tom expressed confusion about how individuals belonging to his society were being educated on particular eco-friendly actions:

> *I think it comes to perception and education, right? The idea that a Tesla is better for the environment than a Toyota Camry. Which isn't because that battery is immensely toxic. And you need to drive that car for a long time. I know the first Toyota Prius you had to drive for 80 years for it to be environmentally friendly.* (Tom, 21, male, New York)

This sentiment aligned with Emma's view, who showed skepticism towards the environmental claims that corporations marketed:

> *"There's so much greenwashing there's so many companies that are talking about things like sustainability and the emissions but none of it feels genuine".* (Emma, 24, female, New York)

Meanwhile, some students—such as David—voiced awareness about the fact that their access to complete, reliable information was insufficient when it came to properly informing and guiding their sustainable behaviors:

> *We still don't know enough about recycling which is strange at this point so while it seems like a great alternative I feel like there's so few items that we're actually getting that are like a recycled bottle ready to like use in our hands.* (David, 23, male, New York)

For respondents such as Matt, the illustrative challenge was trying to objectively identify environmentally friendly food choices while also expressing uncertainty and confusion throughout his educational journey:

> *I've been thinking a lot about milk. I like oat milk, I've been doing my best to not drink cow milk. I don't feel great about drinking cow milk. Is me drinking oat milk beneficial? Less cows, less grass for cows to have to eat, all of those things. I've also been reading about some of the cost of oat milk and avocados. There were three things contributing to the wild fires. That was concerning because I like oat milk so much, and I thought I was doing myself and the world a service by not consuming cow milk, but that might not be the case and I'm sure that's the case for a whole lot of other things.* (Matt, 25, male, New York)

As referenced earlier, distrust of corporations was prominent. According to the most recent World Values Survey, only 2.3 percent of Americans have trust in major corporations (2020). Companies must avoid "greenwashing" that can mislead the public (Giddens 2009). "Greenwashing" by the private sector stuck out as a focal point for some of the American interviewees. One case in particular was voiced by Tom, who elaborately shared a story about making notebooks with recycled paper. After purchasing what he thought would be an environmentally friendly 95 percent recycled notebook, he discovered that the impact of recycled notebooks was actually worse for the environment than purchasing a virgin notebook:

> *That paper was trashed in the United States, then crated on a ship to China, recycled in China, and shipped from China to the UK to be produced. Whereas if that factory in the UK that makes notebooks bought virgin paper from the mill in the next town, it would be immediately better. So again, it's just optics, and branding and marketing.* (Tom, 21, male, New York)

Tom went on to express his dissatisfaction with the close ties — and overlapping interests — that exist between corporate and state:

> *The problem is that the private and public sector are in bed together. I don't think that big styrofoam is a thing in the States, maybe it is. But you can't really get rid of plastic water bottles? Because Coca Cola is so invested in making sure that it stays around. So it's a vicious cycle. The government needs to man up for lack of a better term, and we need to make them do that and keep the corporations accountable.* (Tom, 21, male, New York)

As a result of this erosion of trust and lack of transparency, young individuals residing in the U.S. expressed the need for more corporate accountability. During the interviews, participants raised issues relating to the carbon footprint and environmental damage stemming from corporate activity, posing questions as they struggled to grasp how these issues are dealt with:

> *I think major corporations play a big role; they are responsible for some of the largest emissions in the country. How can we make legislation to hold them more accountable?* (Cara, 22, female, New York)

> *Like the BP oil spill, you know, that should be something people still care about, but it's not. Did anyone go to jail for that? That's criminal.* (Tom, 21, male, New York)

Chinese subjects commented on wider consumption trends they had observed in their society—from shopping to eating—in response to prompts describing how the environmental crisis impacted consumer behavior. As established in the literature review, China's shift to becoming a more market-oriented economy has led to a more materialistic culture, with younger cohorts becoming increasingly individualistic (Sun and Wang 2010). While participants' responses confirmed this shift towards materialism, the answers were generally framed by reference to their community or society's values and behaviors.

Jianyu expressed concern with over-consumption in China, sharing an anecdotal example of how celebrity culture fuelled excessive consumption:

> *In the news in China, there were a lot of people buying bottles of milk to vote for their idols, because you could scan a code with your phone to vote. They would just buy the bottle of milk and throw away the milk and the bottle just to get the code on it to vote. It's just a very bad way to shop. The program was punished by the government because there was a lot of waste in this case.* (Jianyu, 20, male, Shanghai)

Similarly, Lei voiced her opinion on the image China is trying to project through strong economic growth, partly by discussing how consumption-oriented the country has become:

> *In China they really want the people to consume and spend because they want everyone else on the outside to think China is very economically strong and robust and stable. So they encourage massive consumption on everything from food to clothing. There's not much of a secondhand recycle-like consciousness. They just want you to spend, spend, spend. It also has to do with them having so many people in the labor force they need, they need to keep food on the table and so they create these menial jobs, just for the sake of generating jobs. Delivery here is crazy; if you order something like a pencil, it will be*

> *delivered by a person. So it has so many negative effects but it generates income and it brings food to the table for billions of people.* (Lei, 24, female, Shanghai)

One of the interviewees had lived overseas and, informed by her comparative experience, expressed her singular point of view on China's relationship with materialism:

> *It's such a consumer-driven market. I always tell people, it's the most capitalistic communist country you'll ever experience.* (Suyin, 25, female, Shanghai)

Chun equated his values towards consumption as an indication of the importance placed on the value of materialism as a way to increase social well-being:

> *I think the production work cannot be stopped as human beings need a better life. They need better stuff which can make a better life. We need clothes, we need a computer, we need everything to make our life better. So the production cannot stop, ever.* (Chun, 21, male, Shanghai)

Beyond the importance people placed on consumption and market growth, certain respondents shed light on the more mindful side of society and its participants in regards to energy consumption:

> *I think culturally people here actually save a lot of energy. They're very conscious. So even in Donghua University, they would cut power by 11pm. The girls would lose power but not the boys though.* (Xiang, 20, female, Shanghai)

Sue outlined the paradox she noticed in China in relation to the conflicting behaviors surrounding materialism:

> *The Chinese spend a lot and it's about consume, consume, consume but it's not about consuming to excess. There's no excess here. The country just came out of poverty a few decades ago. That it still is very much engraved in society to not be excessive or not be wasteful, to be very frugal. It's a strange thing though because we're all about consume.* (Sue, 22, female, Shanghai)

Jianyu made a similar observation, stating that while he doesn't believe consumers don't account for environmental issues when shopping, there is, however, a *culture of not buying too many things.*

The interview findings showcase a recent change in policy surrounding over-consumption and waste. In 2020, President Xi Jinping announced his support of the 'Clean Plate Campaign' after referring to the amount of food wasted during the pandemic as "shocking and distressing" (Huang and Qin 2020). Following the announcement, in 2021, an anti-food waste law was passed through the Standing Committee of the Thirteenth National People's Congress that bans food waste and threatens citizens with fines of up to USD $15,000 (Caiyu 2021). As a result of Xi Jingping's stance on food waste, local authorities implemented the 'N-1 ordering' system whereby a group of diners must order one dish fewer than the total number of diners (Kuo 2020).

> *At the beginning of this year, the government actually started to heavily campaign against food waste. China, in terms of food waste, has been a huge problem, because food has always been a status kind of thing for Chinese. When you, for example, go for dinners, usually the traditional way will be people will order a lot of dishes. And it doesn't matter whether you can finish it or not. It's just really more to show 'okay, we can afford all of this.' So there's a lot of food waste, really being connected with that. And then, since the beginning of the year, the government actually started to do a campaign about how people should actually reduce the food waste.* (Lian, 23, male, Shanghai)

***Micro Context: From Technosalvation (USA) to Spatial-Temporal Risks (China)***

When discussing potential solutions that could mitigate climate change, the young American cohort stressed the importance of technology, at times displaying overly optimistic or hopeful views about the role it could play. This speaks to Gifford's concept of *technosalvation*,

the idea that people's faith in technology can sometimes act as a blockage to engaging in their own climate-mitigating actions (2011).

Emma, for instance, revealed her support of technology as a way to combat the environmental crisis, indicating the value and belief she puts on the *innovative people* within the industry. This was further echoed by Jessica, whose statement veered on the more extreme side of technosalvation, expressing her views on the crucial role of technology.

> *I think tech is definitely going to have to play a part because that's one of the major tools we have. So if that's something at our disposal, and the most innovative people in the world are kind of at the forefront of that field, I think that's going to be our best chance.* (Emma, 24, female, New York)

> *I think without the technological advances necessary to reverse the impacts scientists project, we are headed towards a volatile century that makes life on earth miserable and dangerous.* (Jessica, 21, female, New York)

Michael, similarly, adopted a more optimistic stance towards the advent of new technologies as a means to counter most threats emerging within the *risk society*:

> *I am reassured by the pace of technological process outpacing, exponentially, almost every threat we face as a society, besides those which we ourselves have created. I have been interested in geothermal engineering and, while not a perfect solution, it seems to have very promising potential.* (Michael, 22, male, New York)

From the freedom to disagree, the skepticism and distrust, and the importance and hope placed on technological innovation, American interviewees expressed reflexive views that considered environmental issues across a macro, meso, and micro dimension.

For some of the Chinese interviewees, the spatial and temporal elements of climate change were commonly expressed through their observation of pollution. The interviews revealed that some participants equated climate change specifically with the varying quality of air levels noticeable in their day-to-day lives. When asked, *how often do you find yourself*

*thinking about the environment?* Lian answered directly: *I probably think about the pollution when the air is very bad, like once a week*, despite the mention of pollution in the question.

On a micro level, Suyin noted the progress she was witnessing in her daily life, specifically in relation to how people's understanding of climate science was evolving:

> *The awareness about pollution here has changed. Many years ago when people thought of pollution, they would kind of look up at the sky and say, 'oh, it's very foggy', whereas now, if I talk to a taxi driver, for example, they actually know that it's pollution"* (Suyin, 25, female, Shanghai)

Meanwhile, Chun discussed the improvement in air quality he had witnessed over the last few years. This was in part due to *big cities like Beijing and Shanghai shutting down coal factories within the city,* despite the fact that they were potentially just relocated elsewhere: *there is some debate around whether they were just moved to another smaller city.* Lei expressed gratitude for the city's improved air quality, comparing her personal experience with that of neighboring cities:

> *I'm very fortunate that Shanghai is pretty good compared to the rest of China. The pollution has been kept quite minimal in the city. I was discussing with my friends the other day that Shanghai, because it's now not a manufacturing kind of city, the air quality is not as polluted. Let's say if you go next door to Jiangsu Province, where it's a manufacturing province, then there is a lot more pollution. So the skies are always hazy and the air quality index is bad. It's really unsafe too, they have acid rain.* (Lei, 24, female, Shanghai)

Another unexpected finding was the respondents' awareness and clear understanding of pollution-related matters, with some of the conversations highlighting their detailed knowledge of issues pertaining to air quality. For example, Jianyu spoke about the air index level, specifically PM2.5 which is a concerning air pollutant category that causes a dangerous and hazy effect in the air when pollutant levels are high (New York City Department of Health 2018):

> *Several years ago, when winter came, the index of PM2.5 was really high. But in recent years, when winter comes the PM2.5 index seems to be not very high. In a few days, the index will be higher and the government will remind us to use a mask. The reason why PM2.5 will sometimes be higher in China, is because in the north of China, during the cold winter, people use carbon heating to stay warm, and that brings pollution down to us.* (Jianyu, 20, male, Shanghai)

The temporal and spatial nature of the COVID-19 risk reoriented people's values and behaviors towards the more "front-of-the-mind" issue (Giddens 2009:2). According to Sue:

> *People tend to focus on the thing that matters the most at the moment and forget about what happened in the past so now it's all about the pandemic. People just stopped manufacturing and stopped working in the office, and all they care about is how to make a living and get over the pandemic. Nobody seems to care about other topics anymore.* (Sue, 22, female, Shanghai)

Chun made a similar point, explaining that climate related issues become secondary to the pandemic: *unfortunately, that's the cost of being safe and healthy. I guess the environment sometimes has to take a step back.* Lei emphasized the prioritization of more temporal and spatial risks, voicing the conflict she felt between using face masks and being environmentally conscientious:

> *My company provides a lot of face masks for employees. They ordered 5000 black masks and it's for anybody in the company to use. And I would use two face masks a day. That's excessive but the sanitary issue of staying safe was more important. So even though I would wear at least two masks a day, I know it's wasteful and not good for the environment.* (Lei, 24, female, Shanghai)

### *U.S. And China Convergence: Selective Attention & Micro Activism*

While the above themes speak to the distinctive views and priorities among young people in the U.S. and China, including their characteristic sociocultural and political values, this last theme examines the defining commonality that was prevalent throughout many of the interviews.

In line with Norgaard's *collective distancing* concept, most participants were both well informed and concerned with climate change but did not always convert those values into action. The research did find, however, that young people do not respond to environmental issues through denial, apathy, or transformation (Beck 2010) but rather through compartmentalization and micro-actions. Norgaard categorized this as *selective attention* that could manifest in one of three ways: *controlling exposure to information, not thinking too far ahead, or focusing on something you can do* (2006). Participants predominantly approached the environmental crisis by *focusing on something you can do*. They demonstrated this by explaining how they break down climate problems into more achievable actions or manageable steps.

This proved particularly true of American interviewees, who grappled with the overwhelming nature of the environmental crisis. Matt, an American participant, stated:

> *I think it's very easy to be overwhelmed by the jargon and by the idea of doom and what's coming. But for me, that's just not a healthy approach to it. I try to compartmentalize a bit and figure it out. I'm not always going to be the most sustainable, greenest person in the room but I'm aware. There are certain things that I want to do to try to help the situation. We always say every little bit helps.* (Matt, 25, male, New York)

This attitude of *selective attention* was also expressed by American participant Cara who shared her approach to '*focusing on something you can do'*. She clarified:

> *When it comes to energy, where your power comes from, that's sometimes really difficult to find out about. I live in a dorm room in an apartment where a lot of things are out of my control, but it's the things that I buy and engage with—whether it's clothing or food—that I can control. Conscious consumption is something I care about, just because it's something that anyone can interact with. It's very democratic.* (Cara, 22, female, New York)

Some students, like Tom, also saw their consumption choices as minor but constructive contributions towards positive climate action. He explained:

> *When I bought my hybrid vehicle, I got a rebate, which I contributed to in a very small way. It was probably like a cent over the years of taxes I paid that came back to me. But I think that's a contribution in a way. It's coming back to the people. But it's rewarding you for doing the right thing.* (Tom, 21, male, New York)

David detailed his journey with environmental engagement, acknowledging that it had been a matter of compartmentalization and making *smaller lifestyle changes*. He said:

> *It just feels like we all have to take baby steps. And I think that's just my approach. It's not perfect. I'm not always gonna do it right but at least I'm trying. And I know I can get better at it, I know I can become a more responsible citizen of Earth. I can at least have conversations about what I'm doing. And these are all things that have come from smaller lifestyle changes and shifts in my world that have brought me to this point. My level of awareness is at an all time high. So it's just like, again, doing it in smaller pockets. Hopefully, they can develop into bigger habits, and hopefully those habits become influential to others.* (David, 23, male, New York).

In some cases, there was an optimistic and hopeful subtext to embodying *selective attention*, with Michael expressing the connection with micro-actions and their symbolic importance:

> *I think recycling is important in its symbolic sense. If you give that up, then yeah, it's more harm than good. I think a lot of the issues right now are more symbolic than they are practically effective. And while that is true, I think to some extent, it doesn't mean we should stop doing them. We're in a transition phase, where it's not going to be the same level of change we want but we shouldn't stop trying.* (Michael, 22, male, New York)

Chinese participants, too, were vocal about the significance of taking micro-action. Jianyu explained his views on the ripple effect of taking individual action and how that can potentially impact those around her:

> *I think everybody has to play their role. I think from our side, as citizens, we should just do what we can. It doesn't have to be a completely zero waste lifestyle or something like that. But I think if there's areas in your life that you can kind of just tweak and it doesn't affect you too much, then that's great. They're just little actions that you can take every*

> *day. And maybe it's not a huge impact. But obviously, if you practice those actions it could influence other people. And if everybody's doing that, then it can make a difference.* (Jianyu, 20, male, Shanghai)

Lei cited educational influences as a source of motivation and guidance in seeking alternate ways to improve her positive involvement:

> *There was an article that came out that was talking about how bamboo toothbrushes can go back into the Earth or biodegrade compared to a regular toothbrush. Even reading that I was like, 'oh, I should really switch out then'. You know it's very simple, even if it's not going to affect our lives on a huge scale.* (Lei, 24, female, Shanghai)

Other *easy fixes,* she says, are things like switching out bottled body wash for bar soap to cut down on the use of plastic waste. On the other hand, Jianyu pointed towards technology as a tool for making rapid change while stating that she ultimately believes any positively engaged human action can potentially make a difference:

> *Overall, it takes action. It can be through technology, it could be through a little change, it could be a small action. I think that it's not limited to just technology, although technology may enable greater change or faster change. I think overall, it's just human actions in any kind of way that will help the environment and make a change.* (Jianyu, 20, male, Shanghai)

This converging theme between American and Chinese young people challenges the idea of methodological nationalism, surfacing evidence in line with Beck's theory that the *world risk society* creates a necessity for sociological analysis beyond borders. "At the beginning of the 21st century, the world risk society is posing a political and theoretical challenge to this idea that binding history and borders tightly together is the only possible means of social and symbolic integration–and analysis!" (Beck 2012:11).

# CONCLUSION

The cultural, structural, political, and psychological factors that motivate climate action are complex. This study seeks to further understand and contextualize some of the deviations between environmental values and environmental action. From the in-depth qualitative interviews, regardless of structural constraints, it is evident that young people from diverse social contexts approach climate action with a similar method: *focusing on something you can do*. This was conceptualized as micro-activism and evolved from Norgaard's *selective attention* theory (2006).

While the interview findings highlighted different themes between young people in China and the U.S., it is important to note that might not indicate stark differences between the two groups, but rather that these themes are evidence of the foremost concerns or priorities in their current lives as students in large cities. Moreover, while Jamelske et al. (2013) found that a higher proportion of U.S. students reported being unconcerned about the climate crisis compared to their Chinese counterparts, this study found American students, as a whole, to not only be concerned with the climate crisis but also very informed.

As the results of this research represent the words and experiences of the interviewees, certain limitations exist. Firstly, the findings are not an attempt to generalize claims or social cleavages but rather to explore and uncover anecdotal evidence and contextualize it with secondary data such as the *World Values Survey*. There are two types of generalizations available to sociologists when doing qualitative research, one being *moderatum generalizations* (Payne and Williams 2005). This body of research reflects this form of generalization, defined as moderate, pragmatic, and testable propositions (Payne and Williams 2005).

Like all other methods, interviews have their limitations. Interviews are socially constructed and of an artificial character, and they cannot therefore be expected to "uncover the truth or the essence of individual belief, experience or opinion" (Pole and Lampard 2002:127). That being said, interviews were appropriate for my research question in order to generate more detailed and exploratory context surrounding people's environmental values and actions. There is a monopoly of surveys on this topic and a clear whitespace in terms of empirical research of the qualitative nature.

My initial research design included both qualitative interviews on values that would be followed up by a quantitative survey on those people's actions. But by structuring my interview script on people's values, I noticed early on that by the nature of talking about environmental values, people often resorted to talking about their practices. This finding changed my methodological plan and raised an interesting topic on how people conflate values and action (or inaction).

By opting for qualitative interviews, I was able to engage in intercultural exchanges that would not be possible by any other method. In some cases, when interviewing Chinese participants, I found that they weren't able to fully express themselves in English. Given my very rudimentary level of Mandarin, this limitation in language fluency should be noted as it is possible the findings don't allow for a full expression of their values or beliefs. That being said, there was an interesting scenario when I was interviewing Jianyu in Shanghai over Zoom that allowed for a new method to arise. Once I realized he was having difficulty finding the right words in English to answer one of the questions, I told him to type his response in Mandarin in the chat function on Zoom (Appendix 1.5). From there, I was able to do a real-time translation by copying the text into Google Translate and reading it back to him in English for clarification and

further discussion. I had not planned or even considered this tool within my research design, but it was a surprisingly useful and unexpected function that helped facilitate a more in-depth conversation. For other Chinese interviews, I often repeated their answers back to them to ensure accuracy was captured due to their command of the English language.

While Wolf and Mose (2011) contributed relevant knowledge on 'Individual understandings, perceptions, and engagement with climate change' from a global perspective, the researchers acknowledge the lack of information on what internal processes and/or external events could convert individuals' values and beliefs into action. Furthermore, gaps in existing knowledge include information pertaining to those individuals who do make changes in their lives in relation to the climate crisis. Future research could evolve from qualitative studies like this one, adopting a quantitative approach to go beyond exploratory analysis and *moderatum generalizations.*

In conclusion, this research has found that even among cosmopolitan university students, the differences between macro, meso, and micro influences affect individuals in a plethora of ways. While compartmentalisation of large issues—and *focusing on what you can do*—drives micro-actions among both US and Chinese participants, key values and priorities are strongly influenced by social contexts on a macro, meso, and micro scale. These findings can be constructive for policymakers and researchers who are seeking to further understand how to effectively motivate and engage young people in tackling complex issues like climate change.

Firstly, breaking down the steps behind environmental problems allows young people, in both China and the U.S., to feel more empowered to take micro-action. By understanding the interconnectedness of the world, *selective attention* and micro-action made it more feasible for young people to *think globally and act locally*, despite their environmental behaviors being

minor (Steel 1996). “Acting at the local level feels good because the results are visible and tangible” (Berstein, 2019). Furthermore, this research finds Beck’s responses to climate risks—denial, apathy, or transformation—excludes a new generation of young people who respond by compartmentalization (2010). American students see technology as a critical tool for solving climate change, placing confidence and hope in new innovations, while their skepticism and lack of trust in the corporate sector—and questioning of larger structural systems—were of equal emphasis. In China, the country’s recent and rapid economic growth fueled materialistic values among some of the interviewees. On a macro level, Chinese students were largely supportive of the government’s environmental action and how those initiatives had trickled down and impacted their daily lives. Most of the participants stressed the more spatial and temporal elements of climate change—namely pollution and air quality levels—as being their primary concern when it comes to their values and willingness to engage in environmental action on a micro level.

These results contribute to the discussion on the contextualization, information, and democratization of climate and environmental social values, showing that it's necessary—at a theoretical but also political level—to address not only the individual level but also the structure of opportunities to create and put the values into "practice". A melting pot of actions—from micro and daily steps to macro and political measures—should be valued. While not everyone is able to be like Greta Thunberg, everyone is able to do “something”.

## REFERENCES


Adger, Neil, Suraje Dessai, and Marisa Goulden. 2009. “Are there social limits to adaptation to climate change?” *Climatic Change*, 93, 335–354. doi:10.1007/s10584-008-9520-z.

Allen, Kerry. 2019. "Shanghai rubbish rules: New law sends Chinese city into frenzy." BBC News, July 4. (https://www.bbc.com/news/world-asia-china-48847062).

Atkinson, Paul, Amanda Coffey, Sara Delamont, John Lofland, and Lyn H. Lofland. 2001. *Handbook of Ethnography*. London, England: Sage.

Beck, Ulrich. 1992. *The Risk Society*. London, UK: Sage.

Beck, Ulrich, 2010. “Climate for Change, or How to Create a Green Modernity?” *Theory Culture Society*. 27(2-3):254-266.

Beck, Ulrich. 2009. *World at Risk*. Cambridge, UK/Malden, MA: Polity Press.

Beck, Ulrich. 2010. “Remapping Social Inequalities in an Age of Climate Change: For a Cosmopolitan Renewal of Sociology.” *Global Networks* 10(2):165-181.

Bendelow, Gilliand and Simon J Williams. 1997. *Emotions in Social Life*. London, UK: Routledge.

Bernstein, Jennifer. 2019. “Why ‘acting locally’ is impossible in an interconnected world.” The Conversation, Retrieved November 30, 2021. (https://theconversation.com/why-acting-locally-is-impossible-in-an-interconnected-world-115897).

Boden, Tom, Gregg Marland, and Bob Andres. 2013. “Global, regional and national fossil-fuel CO2 emissions.” *Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory.* doi:10.3334/cdiac/00001_v2013.

Braun, Virginia and Victoria Clarke. 2006. *6-step framework*. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3:77-101.

Caiyu, Liu. 2021. "China adopts law against food waste; binge eating, excessive leftovers to face fines." Global Times, Retrieved November 2, 2021. (https://www.globaltimes.cn/page/202104/1222490.shtml).

Chi, Chun-Chieh. 2011. “Reviews: Re-making the environment” *International Sociology* 26(2):219-221. doi:10.1177/0268580910391007.

“Climate Change 2021: The Physical Science Basis.” 2021. IPCC Report / Working Group. Retrieved September 15, 2021. (https://www.ipcc.ch/report/ar6/wg1/)

De Pryck, Kari and François Gemenne. 2017. “The Denier-in-Chief: Climate Change, Science and the Election of Donald J. Trump.” *Law Critique* 28:119–126. https://doi.org/10.1007/s10978-017-9207-6.

Gärling, Tommy, Satoshi Fujii, Anita Gärling, and Cecilia Jakobsson. 2003. “Moderating Effects of Social Value Orientation on Determinants of Proenvironmental Behavior Intention.” *Journal of Environmental Psychology* 23(1):1–9.

Giddens, Anthony. 1984. *The Constitution of Society*. Cambridge, UK: Polity Press.

Giddens, Anthony. 1991. *Modernity and Self Identity. Self and Society in the Late Modern Age.* Cambridge, UK: Polity Press.

Giddens, Anthony. 2009. *The Politics of Climate Change.* Cambridge, UK: Polity Press.

Giddens, Anthony, Mitchell Duneier, Richard P Appelbaum, and Deborah Carr. 2021. *Essentials of Sociology*. NYC, New York: W. W. Norton & Company.

Haerpfer, Christian, Alejandro Moreno, Christian Welzel, Pippa Norris, Jaime Diez Medrano, Marta Lagos, Bi Puranen, and Eduard Ponarin. 2020. "World Values Survey: Round Seven (2017-2021)." *Country-Pooled Datafile. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat*. doi: org/10.14281/18241.1.

Hechter, Micheal. 1993. *The Origin of Values*. New York: Aldine de Gruyter.

Hitlin, Steven and Jane Allyn Piliavin. 2004. "Values: Reviving a Dormant Concept." *Annual Review of Sociology* 30(1):359-393. doi:10.1146/annurev.soc.30.012703.110640.

Hoffman, Andrew J. 2015. *How Culture Shapes the Climate Change Debate*. Palo Alto, CA: Stanford University Press.

Huang Bella and Amy Qin. 2020. "Xi Declares War on Food Waste, and China Races to Tighten Its Belt". The New York Times, Retrieved October 21, 2021. (https://www.nytimes.com/2020/08/21/world/asia/china-food-waste-xi.html).

Inglehart, Ronald. 1995. "Value Change on Six Continents." *The American Political Science Review* 88(2):336-354.

Inglehart, Ronald. 2003. *Human values and social change: findings from the Values Surveys*. Leiden, Netherlands: Brill Publishers.

Jamelske, Eric, James Barrett, and James Boulter. 2013. "Comparing climate change awareness, perceptions, and beliefs of college students in the United States and China." *Journal of Environmental Studies and Sciences* (3):269–278. doi:10.1007/s13412-013-0144-x.

Kinzig, Ann P., Paul R. Ehrlich, Lee J. Alston, Kenneth Arrow, Scott Barrett, Timothy G. Buchman, Gretchen C. Daily, Bruce Levin, Simon Levin, Michael Oppenheimer, Elinor Ostrom, and Donald Saari. 2013. “Social Norms and Global Environmental Challenges: The Complex Interaction of Behaviors, Values, and Policy.” *Bioscience* 63(3):164–175. doi:10.1525/bio.2013.63.3.5.

Kuo, Lily. 2019. "A sort of eco-dictatorship': Shanghai grapples with strict new recycling laws." The Guardian, Retrieved October 12, 2021. (https://www.theguardian.com/world/2019/jul/12/a-sort-of-eco-dictatorship-shanghai-grapples-with-strict-new-recycling-laws).

Kuo, Lily. 2020. "Operation empty plate': Xi Jinping makes food waste his next target." The Guardian, Retrieved October 3, 2021. (https://www.theguardian.com/world/2020/aug/13/operation-empty-plate-xi-jinping-makes-food-waste-his-next-target).

Laidley, Thomas. 2013. “Climate, Class and Culture: Political Issues as Cultural Signifiers in the US.” *The Sociological Review* 61(1):153–171. doi:10.1111/1467-954X.12008.

Leiserowitz, Anothy, Connie Roser-Renouf, Jennifer R. Marlon, and Edward W. Maibach. 2021. “Global Warming’s Six Americas: a review and recommendations for climate change communication.” *Current Opinion in Behavioral Sciences*. doi:10.1016/j.cobeha.2021.04.007.

Lofland, John, Lyn. H. Lofland, and Leon Anderson. 1995. *Analyzing social settings: A guide to qualitative observation and analysis*. Belmont, California: Wadsworth.

Markus, Hazel Rose and Shinobu Kitayama. 1991. “Culture and the self: implications for cognition, emotion, and motivation.” *Psychological Review* 98(2):224-253.

Mythen, Gary. 2007. “Reappraising the Risk Society Thesis: Telescopic Sight or Myopic Vision?” *Current Sociology* 55(6):793–813. doi: 10.1177/0011392107081986.

“National Development and Reform Commission.” 2012. China’s policies and actions for addressing climate change. Retrieved September 11, 2020. (http://www.ccchina.gov.cn/WebSite/CCChina/UpFile/File1324.pdf)

Nelson, Ryan L., Kathleen Abendroth, and Karen Lynch. 2014. "Ethnography." Pp. 55-79 in *Handbook of Qualitative Research in Communication Disorders*, edited by Martin J. Ball, Nicole Müller, and Ryan L. Nelson. NYC, New York: Psychology Press. Retrieved December 13, 2020. (https://api.taylorfrancis.com/content/books/mono/download?identifierName=doi&identifierValue=10.4324/9780203798874&type=googlepdf)

Neuendorf, Kimberly A. 2016. *The Content Analysis Guidebook*. 2nd ed. Cleveland: Sage Publications.

Nilan, Pam. 2011. “Youth sociology must cross cultures.” *Youth Studies Australia* 30(3):20-26.

Nilsen, Ann. 1999. “Where is the future? Time and space as categories in analyses of young people's images of the future.” *Innovation: the European Journal of Social Science Research* 12(2):175-194. doi: 10.1080/13511610.1999.9968596.

Norgaard, Kari Maris. 2006. "People Want to Protect Themselves a Little Bit: Emotions, Denial, and Social Movement Nonparticipation.” *Sociological Inquiry* 76:372-396.

Norgaard, Kari Maris. 2018. “The Sociological Imagination in a Time of Climate Change.” *Global and Planetary Change* 163:171-176.

"OECD Key Environmental Indicators." 2008, The Organisation for Economic Co-operation and Development. Retrieved January 15, 2021.

(https://www.oecd.org/env/indicators-modelling-outlooks/37551205.pdf)

Payne, Geoff and Malcom Williams. 2005. "Generalization in Qualitative Research." *Sociology* 39(2):295-314. doi:10.1177/0038038505050540

Pole, Christopher and Lampard, Richard. 2002. *Practical Social Investigation – Qualitative and Quantitative Methods in Social Research*. Harlow: Pearson Education.

Przybylski, Liz. 2020. *Hybrid Ethnography*. Thousand Oaks, CA: SAGE Publications.

Schwartz, Shalom H. and Wolfgang. 1987. "Toward a universal psychological structure of human values." *Journal of Personality and Social Psychology* 53(3):550–562. doi:10.1037/0022-3514.53.3.550.

Spradley, James P. 1979. *The Ethnographic Interview*. New York: Holt, Rinehart and Winston.

Strandbu, Åse and Olve Krange. 2003. "Youth and the Environmental Movement – Symbolic Inclusions and Exclusions." *The Sociological Review* 51(2):177–198. doi:10.1111/1467-954X.00414.

Steel, Brent. 1996. "Thinking Globally and Acting Locally?: Environmental Attitudes, Behaviour and Activism." *Journal of Environmental Management* 47(1):27-36.

Triandis, Harry C.1995. *Individualism and Collectivism*. Boulder, CO: Westview.

Watts, Jonathan. 2018. "Global warming should be called global heating, says key scientist." The Guardian, Retrieved September 2021. (https://www.theguardian.com/environment/2018/dec/13/global-heating-more-accurate-to-describe-risks-to-planet-says-key-scientist).

Whitmarsh Lorraine. 2009. “Behavioural responses to climate change: asymmetry of intentions and impacts.” *Journal of Environmental Psychology* 29(1):13–23.

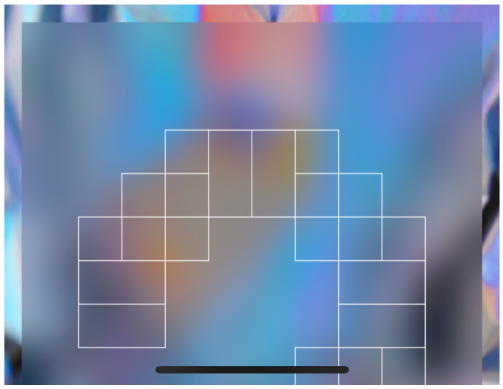
Wolf, Johanna and Suzanne C. Moser. 2011. “Individual understandings, perceptions, and engagement with climate change: insights from in-depth studies across the world.” *Wiley Interdisciplinary Reviews: Climate Change* (2):547-569. doi:10.1002/wcc.120.

Whyte, William F. 1982. “Interviewing in field research.” Pp. 111-112 in *Field research: A Sourcebook and Field Manual*, edited by Robert G. Burgess. London, UK: George Allen & Unwin.

# APPENDIX

## Appendix 1.1 WeChat: Environmental Social Media Posts



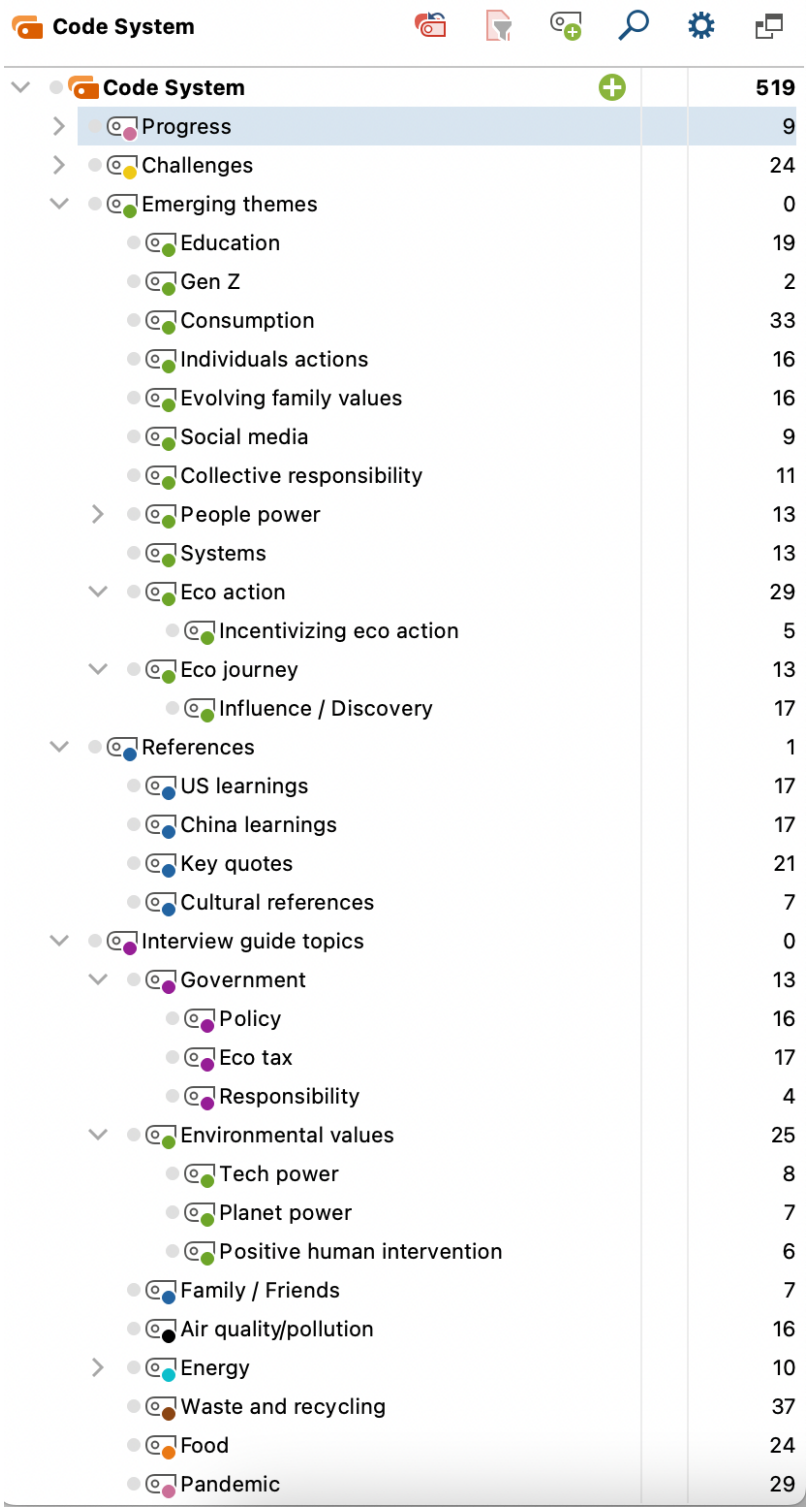
## Appendix 1.2 Interview Guide

| OBJECTIVES | THEMES | # | QUESTIONS |
|---|---|---|---|
| READ INFORMED CONSENT | | | |
| Gathering socio-demo data | **Socio-demographic info** | **1** | *Which gender do you identify with?* |
| | | **1.1** | *What is your age?* |
| | | **1.2** | *Where were you born?* |
| | | **1.3** | *Where do you currently reside? Tell me a bit about your neighborhood?* |
| | | **1.4** | *Can you tell me a bit about your household? Who do/did you leave with?* |
| | | **1.5** | *What are your parent's professions? Did they go to college? (what did they study?)* |
| | | **1.6** | *Where do/did you study? Could you tell me briefly what?* |
| | | **1.7** | *Do you belong to any environmental groups or associations? If so, what attracted you towards that association?* |
| Understand their national identity and views on their social context | **Social values** | **2** | *How would you describe the main characteristics of your community or society?* |
| | | **2.1** | *Do you consider your society to be fair? In what way?* |
| | | **2.2** | *Do you consider your society to be equal? In what way?* |
| | | **2.3** | *What is your society's relationship with consumerism, in your view?* |
| | **Environmental values** | **3** | *How often do you find yourself thinking about the environment?* |
| | | **3.1** | *In your view, to what extent can human intervention (technology/innovation) support/heal/save the environment? Can you provide some examples?* |
| | | **3.2** | *Do any religious or spiritual beliefs impact your relationship with nature or the environment?* |
| | | **3.3** | *To what extent do you think it's the individual's responsibility to help save the environment?* |
| | | **3.4** | *To what extent do you feel a personal responsibility to try* |

| | | | |
|---|---|---|---|
| | | | *and help the environment?* |
| | | **3.5** | *To what extent do you think it's the government/national authorities responsibility to help save the environment?* |
| | | **3.6** | *In your view, should citizens give some income/tax in support of the environment? Why so?* |
| | **Family** | **4** | *How important is the climate crisis and the environment amongst your family?* |
| | | **4.1** | *Have your views impacted your family or their views at all?* |
| | | **4.2** | *How do you feel your concerns are similar or different from your parents? Why?* |
| | | **4.3** | *Which are the most important environmental issues to you from the ones we've discussed? Why so?* |
| | **Climate change** | **5** | *How do you view the relationship between humans and nature/climate/environment?* |
| | | **5.1** | *Are you concerned about climate change? How come and how so* |
| | | **5.2** | *Do you believe that nature is strong enough to cope with the impact of industry? Why so?* |
| | | **5.3** | *Do you think that climate change is caused by natural processes, human activity, or both? Can you give me an example?* |
| | | **5.4** | *To what extent do you feel a personal responsibility to try to reduce climate change?* |
| | | **5.5** | *How important is the topic of climate change amongst members of your family? Can you give me some examples of their actions or discussions or conversations you have had?* |
| | | **5.6** | *To what extent should the local or national government help in mitigating climate change?* |
| | | **5.7** | *What role do you companies plan in relation to climate change? How should they be held accountable?* |
| | | **5.8** | *Do you think anyone influenced or has influenced your views on the climate crisis?* |
| | | **5.9** | *What do you think has been the role of information on your awareness of the climate crisis?* |
| | **Air quality and pollution** | **6** | *Can you describe the level of pollution in your city?* |
| | | **6.1** | *To what extent do you believe there is an impact of transport such as cars and planes on the environment? Can you give me an example?* |

| | | | |
|---|---|---|---|
| | **Energetic resources** | **7** | *Do you think people should be forced to limit their energy use to try to reduce climate change? Why so?* |
| | | **7.1** | *What are your views on alternative sources of energy such as solar or wind energy?* |
| | **Waste and materials** | **8** | *To what extent do you think about where your trash/garbage goes?* |
| | | **8.1** | *How important is it to recycle? Why so?* |
| | | **8.2** | *How much do you know about where your household waste goes?* |
| | | **8.3** | *Tell me about how you view shopping? Does the environment drive any of your shopping behaviours?* |
| | **Food chains** | **9** | *To what extent does food play a role in any environmental issues?* |
| | | **9.1** | *What sort of diet do you follow? Why so?* |
| | | **9.2** | *Do environmental issues impact your food choices? If so, which ones and why?* |
| Determine the impact the pandemic had on their views/values | **Pandemic** | **10** | *How has the pandemic changed your views, knowledge or concerns about the environment? Can you describe a specific example?* |
| | | **10.1** | *To what extent are the pandemic and environmental issues related, if at all? Why so?* |
| | **Wrap-up** | **11** | *Which are the most important environmental issues to you from the ones we've discussed? Why so?* |
| | | **11.1** | *Is there any other concern or thought about the environment that we haven't spoken about?* |
| | | **11.2** | *Is there anything you think you could do more or better to follow your concerns?* |

## Appendix 1.3 Code System by Themes (MAXQDA)



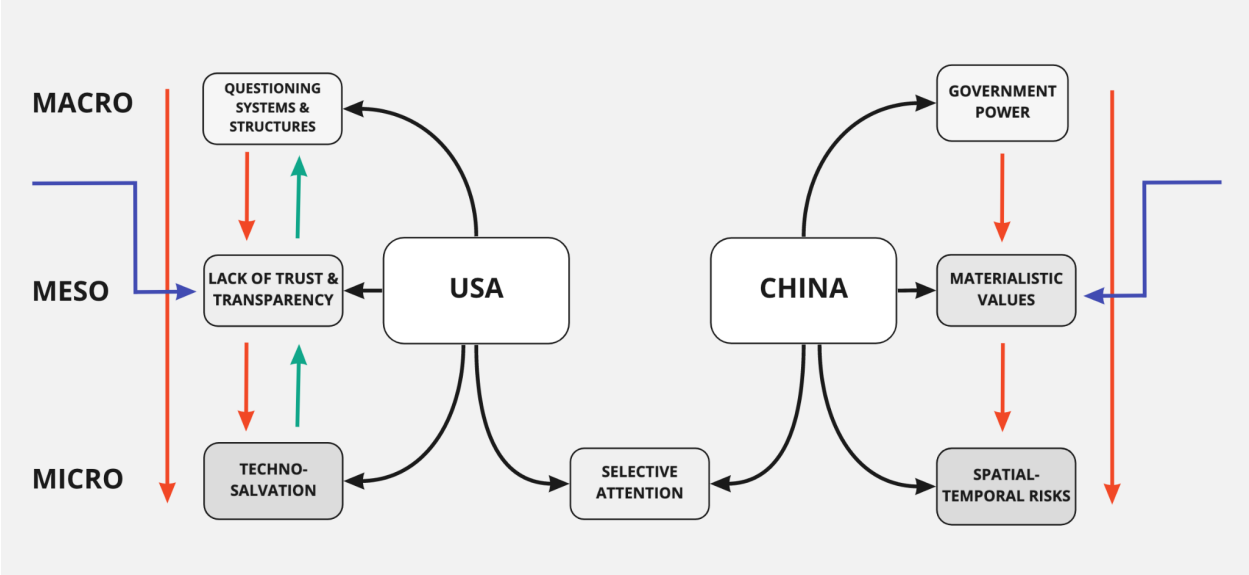
## Appendix 1.4 Table of Interviewee Themes (USA)

| Interviewee themes from U.S. participants | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Systems issue** | **Individual Rights** | **Pandemic** | **Trust, Optics, Illusions & Lack of Transparency, Accountability** | **Lack of control/Overwhelmed** | **Social Media Learning** | **Micro actions** | **Conscious Consumption** | **Making better choices isn't easy/cheaper** | **Stronger policy action** |
| I feel like that has to come as more of an infrastructure thing of like, how are we getting power how are we kind of because there's ways to reduce it without like having to police individuals on like, their energy usage. So I think that I think that more has to come again, I think from like the government and kind of like an infrastructure fix and it does the individuals especially | There's a whole new issue with COVID on top of the climate crisis. That's why it's so horrible here because we're always talking about freedom, freedom, freedom and never asking at what cost. Americans are always concerned with their rights but never their responsibilities | It just feels like the pandemic has been a massive crisis, as well as the climate crisis, but it's almost like what's more urgent right now? We know the climate crisis is super urgent right now. But are you willing to risk your personal health? You | That makes me think of what Elizabeth Warren said. In one of the presidential debates she said, the oil companies want us to be fighting over cheeseburgers. The plastic straws, the flights, the cheeseburgers, and the recycling. Meanwhile, the grave damage is happening. | So it's tough, because it's like, also because like, when you're renting and everything, too, it's like you don't, you're not you only have so much control. So I think about it sometimes that's unfortunately, like one of those things that I kind of had to, like, relinquish some control over because | Even for furniture, a lot of my friends aren't buying new furniture, there's a push to just not buy new furniture, because there's so much in New York being given away for free. There's new Instagram accounts that are like, Hey, this is not the corner come pick it up somewhere. | I just know, in the day to day just do things that feel natural, I'm actively trying to change my habits and behaviors little by little, once or twice a week, I'm going to try this one recycling more than I ever have | The way that I view purchases is quality over quantity. I'll give you an example that's a very immediate one. My roommates have been wearing Vans for 20 years which are $55 or $60. And he's buying new Vans, even once a year, say it's once a year, right? In five years, you've not only bought five | Sustainability almost feels counter intuitive. I shouldn't be paying more for something that is a little more natural. Food, why is an organic apple 40 cents more? | I have, like, an arsenal of tote bags in my house. When I forget, I'm still like "oh, shoot." Obviously, if I have like four things, I'm the guy that says, 'I don't need a bag for that', or 'no, I don't need a plastic bag for it for that'. Or 'I don't need a lid for that coffee'. But then you slip, and if everyone is slipping every time, and everyone's getting the tote bag every time then obviously you're gonna pay 10 cents for it. So it |

## Appendix 1.5 Table of Interviewee Themes (China)

| Interviewee themes from Chinese participants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Micro Actions** | **Government Projection** | **Materialistic Culture / Consumption First** | **Government Power** | **Consumption but no excess/waste** | **Spatial & Temporal Impacts: Pollution** | **Monetary factors** | **Pandemic didn't affect them** | **Collectivist attitudes** |
| I think everybody has to play their role. I think from our side, as citizens, we should just do what we can. It doesn't have to be a completely zero waste lifestyle or something like that. But I think if there's areas in your life that you can kind of just tweak and it doesn't affect you too much, then that's great. They're just little actions that you can take every day. And | In China they really want the people to consume and spend because they want everyone else on the outside to think China is very economically strong and robust and stable. So they encourage massive consumption on everything from food to clothing. There's not much of a secondhand recycle-like consciousness . They just want you to | In the news in China, there were a lot of people buying bottles of milk to vote for their idols, because you could scan a code with your phone to vote. They would just buy the bottle of milk and throw away the milk and the bottle just to get the code on it to vote. It's just a very bad way to shop. The program was punished by the government because there was a lot of | In Shanghai, it is compulsory for every household to separate their garbage or trash into four categories. First we must sort the harmful type of trash. For example, batteries or some chemicals. Next is recycling like plastic. And the last two categories are wet trash like food and dry trash. | The Chinese spend a lot and it's about consume, consume, consume but it's not about consuming to excess. There's no excess here. The country just came out of poverty a few decades ago. That it still is very much engraved in society to not be excessive or not be wasteful, to be very frugal. It's a strange thing though because we're all about | Beijing a few years ago, the government shut down all the factories, and the sky of Beijing will turn blue after a day. So I think definitely people can stop the factory and the environment would get better instantly | I think we should utilize more green resources. Now, in Shanghai, if you buy a car, which uses oil it will be more expensive. If you buy an electric car, it will be cheaper and the government will give you some incentive | To be very honest, I did not have this feeling. Because the recovery is very quick. And in the beginning of 2020, I really felt the silence of the city. But you know, the food delivery and the O2O business model is very developed in China. People will order vegetables, order food, order everything on O2O apps. So it also generated | Asian society has been so brought up on like, you know, respecting the elders and the bigger people, and especially in China is like, following the rules, which I know from a global scale doesn't always seem like that. But I think the everyday citizen does want to do what is right in their society. |

## Appendix 1.6 Environmental values in a structure and agency perspective (USA and China)




## Appendix 1.7 Zoom Cross-national Translation