

**Value Changes in Post-Soviet Mongolia:
A mixed-methods field study on the generational utility of Chinggis Khaan**

by

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This exploratory study addresses the questions: What historical events may have influenced value development in Mongolian society? Does reverence for Chinggis Khaan tangibly influence personal beliefs? Is Mongolia moving toward or away from Soviet values, and is this movement comparable to other Eurasian, post-Soviet states? The study is mixed-method, combining quantitative survey data (n=513) and long-form qualitative cognitive interviews (n=35). The five-week data collection was conducted in Ulaanbaatar, Mongolia, in May 2019. Because it is nearly impossible to measure all cultural values in a single study, this research focuses on four value measures: critical thinking, the value of women, values respondents say children should learn at home, and perceptions of the values of Chinggis Khaan. Findings show that critical thinking scores are much lower in Mongolians under 30 than those over 50, the opposite of previously conducted studies. Additionally, Mongolian women face bias in political spheres, and a personal reverence for Chinggis Khaan makes no difference in respondents' attitudes toward women, despite his historically documented egalitarian policies. Lastly, Mongolia's cultural values are trending toward the United States rather than Russia or other post-Soviet Eurasian countries.

Table of Contents

Preface.....	ix
1.0 Introduction.....	1
2.0 Summary.....	3
3.0 Methodology	4
3.1 Survey Methodology.....	5
3.2 Cognitive Interviews:	9
3.3 Problems in Methodology	10
4.0 History.....	12
5.0 Findings.....	18
5.1 Critical Thinking	18
5.1.1 Changes in the Educational System	22
5.1.2 Violence vs. Stability	24
5.1.3 Food Security	24
5.1.4 Intellectual Property Rights	26
5.1.5 Self-Preservation and Critical Thinking	26
5.1.6 Conclusion to Findings on Critical Thinking:	27
5.2 Gender Equity.....	27
5.3 Beliefs about Chinggis Khaan	34
5.3.1 Connecting Veneration to Personal Beliefs	34
5.3.2 Perceptions of Chinggis Khaan in the Wider Population	36
5.4 The Future of Mongolia	40

5.4.1 Mongolia's Cultural Values Relationship to the United States vs. Russia and Post-Soviet States	41
5.4.2 Support for Socialism or Capitalism	45
5.4.2.1 Perceived Quality of Life.....	45
5.4.2.2 Living with Soviet Russians	50
6.0 Conclusion	53
Appendix A - Extra Graphs.....	55
Appendix B : Survey	57
Bibliography	76

List of Tables

Table 1: Cohort Design.....	5
Table 2: Summary of Interview Responses Related to the 2008 Riots.....	16
Table 3: Regression of Critical Thinking Scores and Economic Class, Absorbing Age	25
Table 4: Comments by women relating to cultural norms of violence and bias against women	28
Table 5: Chart of Cognitive Interview Responses by Gender regarding Gender Bias Scale	31
Table 6: Percentage of respondents who agree or strongly agree	33
Table 7: Table of Individual Logistic Regressions	35
Table 8: Regression, Chinggis Khaan Values by Age.....	38
Table 9: Regression Response Difference in Chinggis Khaan Values by Gender	39
Table 10: Cross-Country Values Means Comparison (Min=0, Max=1).....	43
Table 11: : Qualitative interviews regarding general views of the Soviet Union and Democracy	47
Table 12: Regression of Age and Critical Thinking Score Absorbing Education	55
Table 13: Factor Analysis for Schwartz' Theory of Cultural Value Orientations	55

List of Figures

Figure 1: Cohort Development in Context	13
Figure 2: Hartshorne, Germine Critical Thinking Peak.....	19
Figure 3: Age changes in critical thinking ability (composite of five subabilities)	20
Figure 4: Scatter Plot and Best Fit Regression for Age/Critical Thinking Score	20
Figure 5: Hypothesized Critical Thinking Ability Over Time.....	21
Figure 6: Daily supply of calories, 1961 to 2017.....	25
Figure 7: Relationship between Gender and Equity Values.....	32
Figure 8: Schwartz' Cultural Dimensions with Cohort Overlay.....	37

Preface

There are a great number of people that I would like to thank for their contributions to this work. First, thank you to my parents and family for your continual love and support throughout this process. Thank you to my committee chair, Dr. William Dunn, for the many hours you've spent with me on this project, and to my committee members, Dr. Kevin Kearns and Dr. Paul Nelson, for your genuine care and support throughout the last two years.

Thank you to my amazing lead translator, Purevsuren, for your management of the team and your professionalism. It was a joy to work with you and your little one! To all my former students who worked as translators, thank you.

A special thank you to my friend and document translator, Munkhbileg, for inviting me into your university classroom for survey and cognitive interviews. Also, thank you to Solo, Battulga, Soyol, and Binderiya for answering late-night translation or cultural questions, for airport rides, and for being so supportive.

Lastly, I want to thank my former coworker Zorigtkhuu for so warmly including me in Mongolian culture, and for many fascinating conversations about Mongolian history. These conversations were the very beginning of this research. Thank you, and your family, for welcoming me into your homes and sharing your stories.

1.0 Introduction

“Do you know about Chinggis Khaan?”* The little boy had been given the chance to ask me, the first American woman he had ever met, a question. This is what he chose. To him, this was the single most important piece of information to convey to a foreign traveler.

Even if I had never heard of Chinggis Khaan before arriving in Mongolia, it would have been impossible not to take note of the apparent importance the figure holds to modern Mongolians. All international flights arrive at Chinggis Khaan International Airport, and to drive into the capital city, you have to pass monuments to Chinggis Khaan, including the tallest equestrian statue in the world. Once there, you can sleep at the Chinggis Khaan Hotel, eat at one of a few Khaan restaurants, and open an account at the Chinggis Khaan Bank. Mongolians make it impossible for any foreigner visiting their country *not* to know about their beloved Khaan. Without question, Mongolia’s modern identity is inseparably tied to this one historic figure.

During my time as a Fulbright English teacher in the Mongolian capital of Ulaanbaatar from 2017-2018, I was introduced to the most prevalent description of Chinggis Khaan: The Ideal.

“A king.” “He was the smartest Mongolian.” “He is the bravest.” “The best fighter.” “He was very wise.” “He was the greatest.” “He was the best Mongolian.”— all answers among the chorus of definitions from the boy and his classmates. Notice the children’s use of both past and present tense.

* Chinggis Khaan is the Mongolian Latin pronunciation and spelling of the name commonly known in the West as “Genghis Khan.”

While Mongolians idolized a version of Chinggis Khaan's legacy—how he consistently out-maneuvered his enemies, learned from his mistakes, and conquered the known world with his warrior-queen daughters at his side—what I saw told a different story. I was teaching university students who, while kind and respectful, held a relatively low grasp of critical thinking. Additionally, despite the popular view that Chinggis Khaan greatly respected the women around him, modern Mongolian women face a great deal of sexism throughout Mongolian society.

This study was initiated in an attempt to understand possible causes for this cognitive dissonance between words and actions. I make no claims about who Chinggis Khaan truly was, or what he valued. With few first-hand accounts, this would be tenuous at best. Instead, this research focuses on whether Mongolian society's adoration and portrayal of Chinggis Khaan is directing the lived actions and beliefs of its people. Specifically, this study looks at critical thinking, gender equity, values respondents say children should learn at home, and possible Soviet influence in value formation.

2.0 Summary

This exploratory study addresses the questions: What historical events may have influenced value development in Mongolian society? Does reverence for Chinggis Khaan tangibly influence personal beliefs? Is Mongolia moving toward or away from Soviet values, and is this movement comparable to other Eurasian, post-Soviet states? The study is mixed-method, combining quantitative survey data (n=513) and long-form qualitative cognitive interviews (n=35). The five-week data collection was conducted in Ulaanbaatar, Mongolia, in May 2019. Because it is nearly impossible to measure all cultural values in a single study, this research focuses on four value measures: critical thinking, the value of women, values respondents say children should learn at home, and perceptions of the values of Chinggis Khaan.

Survey questions were taken from a number of previously-tested surveys. While some scales achieved satisfactory reliability, others proved largely invalid in Mongolian culture. This raises important questions about the validity of well-known surveys, despite having been designed for multi-cultural use.

3.0 Methodology

This study is exploratory and was not intend to test a particular formal theory. The survey addresses the questions: What historical events may have influenced value development in Mongolian society? Does reverence for Chinggis Khaan tangibly influence personal beliefs? Is Mongolia moving toward or away from Soviet values, and is this movement comparable to other Eurasian, post-Soviet states? The study does not aim to prove causation, but instead to present evidence through data analysis, literature, historical press writings, values data from other Eurasian countries, and first-person interviews to discuss possible links between Soviet influence and social change. Returning to Mongolia to record time series data would allow for the investigation of causal inferences in future research.

While questions related to values may appear abstract, there are many avenues of practical application. If Chinggis Khaan is a nationalist symbol, what does he represent? Around what is the country unifying? What role does Mongolia's educational system play in today's society? Does it instill values of gender equity? What is the future outlook for women in the country? Will Mongolia be able to continue functioning as a weak democracy, or fall to authoritarianism? Thus, this study presents findings relevant to both Mongolian and American policymakers as well as human rights organizations.

The study is composed of two primary components: first, a 79-item survey, and second, a cognitive interview component exploring the reasoning behind survey answers.[†]

[†] Cognitive interviews involved an in-depth and conversational survey, where respondents discussed their answers with the researcher.

In order to track cultural value changes, survey respondents were divided into six cohorts by age (see Table 1). Findings are analyzed through comparison between cohorts. While the survey measures internal variables, the cognitive interviews capture glimpses into external variables that could have influenced value changes. The external variables of each cohort will be explored in the following chapter.

Table 1: Cohort Design

Cohort 1 (C1)	Cohort 2 (C2)	Cohort 3 (C3)	Cohort 4 (C4)	Cohort 5 (C5)	Cohort 6 (C6)
Ages 18-25	26-35	36-45	46-55	56-65	66-85

3.1 Survey Methodology

Composed of 79 total items, the survey was designed to measure four value categories: critical thinking, gender equity, perceptions of the values of Chinggis Khaan, and values respondents say children should learn at home, a proxy for political socialization.

Critical thinking questions were first drawn from Jorge Valenzuela, Ana Ma Nieto, and Carlos Saiz’s Critical Thinking Motivational Scale (CTMS). The scale proved to have limited validity in Mongolia. On one hand, questions like “Critical thinking is useful for everyday life,” received universally supportive responses. However, when in cognitive interviews I asked for examples of critical thinking, few people could give an example. Thus, asking about critical thinking directly was eliciting a reaction to a buzzword. This certainly calls into question findings based on this scale. Thus, these data were removed from the study. This scale was replaced by the Cornell Conditional-Reasoning Test by Ennis et al.. The scale is composed of word puzzles in

classical logic form. Ten questions were selected from the immense set for their cultural familiarity, such as questions relating to horses or other animals. The names in examples were changed to common Mongolian names. This scale maintained a high level of validity and reliability.

The scale measuring values of Chinggis Khaan derives from Shalom H. Schwartz's Theory of Cultural Value Orientations.ⁱⁱ In his theory, Schwartz draws a values pie chart. Each slice is a single value category comprised of certain measures. For example, the slice "Embeddedness" is composed of social order, obedience, and respect for tradition. For the purposes of this study, I selected two measures from each slice and summed their binary responses to get the value score. Then, differences between cohorts were measured. The survey, which was translated and back-translated to ensure construct validity, asked respondents which values from the pie they believed Chinggis Khaan valued. Then, comparisons between cohorts were made to investigate differences. Unlike the CTMS, Schwartz's theory was supported by our findings (See Appendix I).

One original question was used to measure the personal reverence for Chinggis Khaan. Respondents were asked, "What do you have on or above your family's altar?" As a place of reverence, the altar is home to photographs of loved ones, religious images, and paintings or weavings depicting Chinggis Khaan. Respondents had to self-identify items on their altar, and canvassers were instructed not to lead with any questions, except to ask "who specifically?" if respondents generally mentioned photos or images of people. As discussed in the findings section, this measure would have ideally been supplemented by additional questions seeking to measure personal reverence of Chinggis Khaan. Additionally, the survey should have included a question simply asking whether the home had an altar. While the majority do, this would have eliminated non-relevant responses rather than biasing the data.

Scales drawn from World Values Survey 6 (WVS6)ⁱⁱⁱ were used to measure the values of respondents related to gender equity. Originally a four-question scale, one question was removed from the data set after cognitive interviews revealed it lacked face validity. Asked on a four-point scale whether they agreed or disagreed with the statement “When a mother works for pay, the children suffer,” respondents answered in the affirmative not because they thought a woman shouldn’t earn an income, but because in Mongolia, it is a very real situation that women who work are often forced to leave even their smallest infants without adult care. Mothers tie their children to furniture to prevent them from wandering away. Unfortunately, it is not uncommon that children die from this forced neglect, freezing to death in -50 degree temperatures. Thus, interviews discovered a cultural perspective not thought of during the scale design. Without cognitive interviews, the data would have shown extreme bias against women, rather than a simple consideration of real-world problems in Mongolia. The remaining questions from this scale were duplicated later in the survey, but worded to ask “In the time of Chinggis Khaan...” to compare perceived values of Chinggis Khaan with the personal values of individuals.

Only used five WVS6 questions were used in this study, and one was found to lack construct validity. The World Values Survey has been administered in most countries, in six waves since the 1980s. Given the amount of energy and resources that have gone into data collection, it is unfortunate that this study challenges the validity of much of the data. In further research, I suggest that the World Values Survey introduce a cognitive interview component to test the construct validity of their 250+ measures.

For values respondents say children should learn at home, a single WVS6 question was selected, composed of 11 binary choice responses. After data collection, one option was found to have lost construct validity in translation. “Self-Expression,” while translating and back-

translating properly, meant to Mongolians “well-spoken,” rather than the Western understanding of an individual’s ability to show themselves for who they are. Thus, these responses were removed.

It should be noted that this question specified for individuals to choose up to five responses. However, a decent percentage of surveys came back with more than five options selected. This would serve to dilute the importance of each variable. Having conducted the survey, I am doubtful as to whether WVS canvassers successfully limited all their respondents to five selections. Nevertheless, cross country comparison is still appropriate because values were not ranked, but merely presented with a binary mention/not mentioned.

This leads to an important point: I recognize that many of these survey questions could have been easily improved by simple adaptations such as changing four-point scales to five point Likert scales with a neutral option. Instead of binary responses, respondents also might have ranked the importance of values, which would have helped to better differentiate between groups. However, in order to utilize the data sets available, I did not change the structure of questions.

In addition to these scales, the survey also included the Marlowe-Crowne Social Desirability Scale^{iv} to test the honesty of respondents when they were asked about potentially uncomfortable value opinions. The canvassing team consisted of seven members, but the majority of surveys were administered by a woman in her thirties and three male undergraduates in their early twenties. The desirability scale found that the female canvasser collected less-biased results. While I did not remove the male-collected data to maintain a large N in each age cohort, the scale was beneficial as best-practice methodology and should be utilized in any large-scale follow-up research.

Additional data included observational gender and class data reported by the canvasser (based off of appearance, location, and time of day) and self-reported education level, location of secondary education institution, and citizenship.

Alex Inkeles' Individual Modernity Scale^v and additional adaptations of WVS6 questions were included but not utilized in data analysis.

To eliminate potential bias, the survey was conducted without the direct presence of the American researcher. However, the researcher did supervise canvassing teams from a distance. Respondents were paid approximately two dollars each when they completed the survey, the approximate value of one adult meal.

3.2 Cognitive Interviews:

As mentioned above, a primary purpose of cognitive interviews was to test the construct validity of the measures used. An additional purpose was to build a better understanding of external variables that could have impacted value changes.

Respondents were first asked to explain why they chose their answers to particular questions. Next, respondents were asked to share their memories of specific historical events that may have affected their particular age cohort, such as the withdrawal of the Soviet Union, the transition period in 1994, and the democratic riots in 2008. Through memory sharing, respondents communicated their own emotions and experiences in specific historical moments, which provided evidence of the degree to which these external factors may have influenced the development of specific values.

Going into the interviews with a specific list of events to discuss, respondents showed that the Mongolian timeline for historical events is not the one used by the West. For example, respondents had no conception of a *perestroika* period. They did not experience a liberalized or weakened Soviet Union and were shocked when the Soviet Union withdrew. Therefore, the educational and political impacts of *perestroika* were ruled out as external variables that impacted value development, despite initial hypotheses.

Thirty-five cognitive interviews were conducted. I sat with my translator and took notes on a pad of paper as she gave the survey and translated the cognitive reasoning questions I asked. Respondents were paid approximately four dollars for completing the cognitive interview.

3.3 Problems in Methodology

A central question of this study is whether there is a gap between the behavior of the “ideal Mongolian,” Chinggis Khaan, and the behavior of Mongolians who hold him up as an example.

One solution to this problem was summed up by a university student in Ulaanbaatar: “Not everyone should be like Chinggis Khaan. We need followers. Leaders should be like Chinggis Khaan, but we don’t want a whole nation of Chinggis Khaans.”

I designed the study with a Western bias that, logically, individuals strive to be like their heroes. However, in collectivist societies, there is a distinct separation between the behaviors of leaders and followers due to their social distance.^{vi} Most survey respondents reported forming their ideas about Chinggis Khaan through movies. Indeed, in popular Mongolian movies about Chinggis Khaan, ordinary soldiers who unquestioningly follow the orders of their leader, even to death, are shown as highly honorable^{vii}.

However, findings discussed in a later section show that Mongolia is closely linked to many American values. While Mongolia could have once been a collectivist nation, it is increasingly individualistic. Thus, both individualist and collectivist theories should be tested in Mongolia.

4.0 History

A central focus of this study is the relationship between internal value measures and external factors that may have influenced generational value shifts. This study does not attempt to prove causation, but instead aim to support the hypothesis that particular historical events are likely to have caused value shifts.

Setting up the study, I had a set of historical events that I believed likely influenced value development. However, after cognitive interviews, it became apparent that Mongolians experienced the period differently than I had assumed. For example, the *perestroika* period was not acknowledged by the 35 Mongolians we interviewed. They had no experience with a liberalized or weakened Soviet Union, and thus this period remained indistinct to their memory. Due to the differences between Western and Mongolian concepts of the developmental timeline, my analysis focuses on events self-reported to have been distinct and important to the Mongolians in the sample group. I believe this is more accurate to true causal relationships.

Understanding the lived experiences of each cohort in the model provides context to value beliefs, including value differences between groups and values distinct to each cohort. In the following discussion, I will distinguish between the Mongolian understanding and memory of these events and contextualized knowledge from outside sources. It is not the purpose of this chapter to provide a comprehensive account of Mongolian history, and so below I will discuss a select number of events reported by respondents.

Cohort Development in Context*

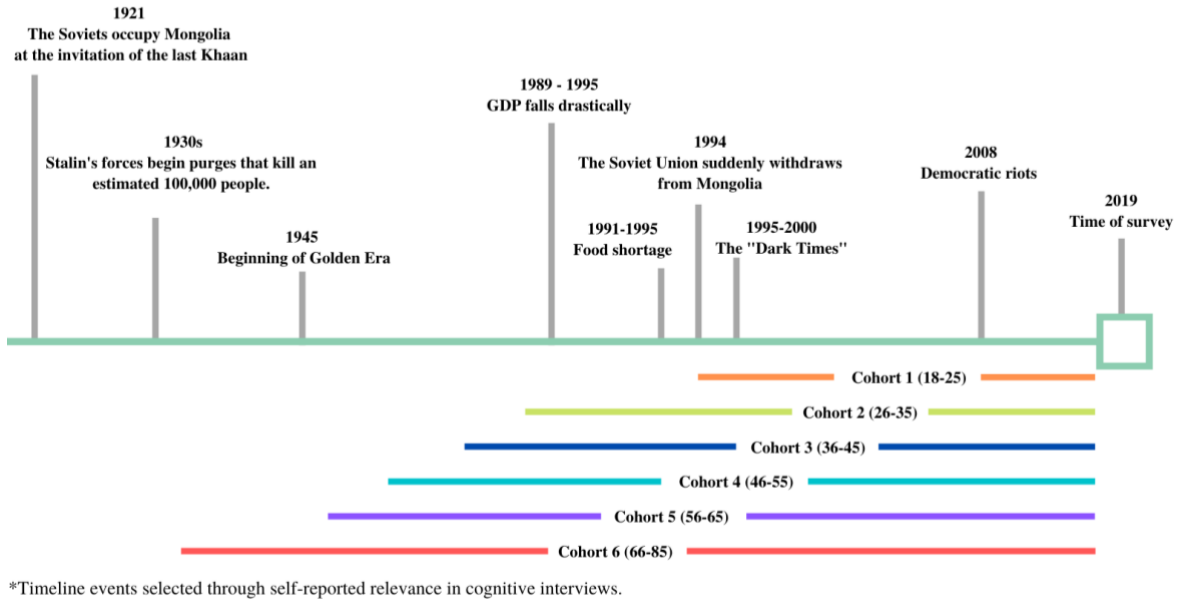


Figure 1: Cohort Development in Context

In 1921, the Red Army expelled the remnants of the Qing dynasty from Mongolia. Mongolians considered the Chinese to be foreign occupiers, and the last Khaan of Mongolia, Bogd Khaan, sent emissaries to Moscow to request the aid of the Soviet Union in expelling the Chinese. This is a major distinction between Mongolia and other Soviet satellite states, and enabled the Soviets, who continued to occupy Mongolia until 1994, to claim the role of brothers and protectors. This term of brotherly protection is consistent throughout mediums of Soviet propaganda, and it was common phrasing by C6 and C5 in cognitive interviews. The Mongolian People's Republic was founded in 1924, and was a satellite state with little autonomy.^{viii}

The purges of the 1930s and 40s were not a point of emphasis for any cohort. When asked directly C6 respondents did report family members who disappeared in the purges. None had a

significant emotional response, saying the purges had been for the good of the country. Some also rationalized the violence, which was often directed at Buddhist monks. Respondents from C6 reported that the large number of celibate, peace-loving monks had made Mongolia weak and enabled the Chinese to occupy their country. Additionally, this celibacy threatened Mongolia's population growth. Few respondents from C1 knew the details or extent of the purges.

1945 began an era of significant GDP growth for the Soviet Union.^{ix} By this date, the Soviets had established a comprehensive public education system in Mongolia^x, and educational exchanges and other travel throughout the USSR was available to select Mongolians.

In 1989, GDP in the Soviet Union began to fall drastically, leading to a food shortage between 1991-1995.^{xi} However, Mongolians do not distinguish this period, but instead define the “Dark Times” as a period that begin at the withdrawal of the Soviet Union in 1994 and continued until approximately 2000. Interviews revealed psychological trauma experienced by Mongolians who were caught off-guard by the withdrawal, and stated the uncertainty that followed in transition.

One man told me, “I was on a train to Ulaanbaatar when I looked out the window and saw a line of Soviet tanks driving north at full speed. I had never seen that many together in one place. They were driving north, toward the border. When I got off the train, we found out that all the Russians had suddenly gone.”

Interestingly, GDP rose sharply after 1994, and food supply also increased. By physical measures, the period after the Soviet withdrawal was distinctly better than the years leading up to withdrawal. However, the psychological hardship experienced causes Mongolians to remember the 1994-2000 period as the worst in their lifetimes.

In 2008, allegations of a corrupt election sparked violence and rioting in Ulaanbaatar. Five people were killed and 300 injured. The headquarters of the majority party and other buildings were burned and looted. The government declared a state of emergency and enforced marshal law for a four-day period after the riots.^{xii}

While I hypothesized that the 2008 democratic riots would be significant, I underestimated their impact. Upon conducting cognitive interviews, it became apparent that the 2008 riots had a similar impact as the 9/11 terror attacks in the United States, in that respondents remembered exactly where they were when they heard the news. It is important to note that the riots were not universally perceived as evil like 9/11, but nevertheless were indelible in the memory of the Mongolians we interviewed. It is important to note that there is a difference in the severity of language with which men and women recalled the riots. For these interviews, male respondents who spoke to the female translator and researcher likely underplayed their emotional reactions for appearance.

Table 2: Summary of Interview Responses Related to the 2008 Riots

Men	<p><i>I was not in Ulaanbaatar at the time, but I was so confused. The election was corrupt. The riots were terribly sad. The police were using their riot gear on everyone, young and old.</i></p> <p><i>My uncles went to the riots but my mother wouldn't let me go. My parents said it would make no difference after a few days.</i></p> <p><i>Shooting normal people is wrong. I was in the countryside when I found out.</i></p> <p><i>I heard about it and worried about it. I just minded my own business.</i></p> <p><i>My parents just tried to be positive. I was so little.</i></p>
Women	<p><i>I was terrified. There were police and tanks.</i></p> <p><i>It was horrible. I worked with the leader of the Democratic Party during that time. Many of them went to jail.</i></p> <p><i>I was terrified. I watched it from the TV. Tanks and soldiers with guns passed down this road, and they took control of the city. We thought it was becoming a war.</i></p> <p><i>I couldn't believe it. I felt sad and terrified at the time. Some people asked "which party are you in?" and I was afraid to answer. My brother was at the square and someone punched him.</i></p> <p><i>It was so sad. Five people died. They were just normal people and they were killed. I was terrified. I had thought good things were coming, but now our democracy is worse.</i></p> <p><i>I was terrified. I was at my camp in the country with my children. I was really terrified, wondering what would happen after this. It hurt democracy, I don't know why.</i></p> <p><i>I was terrified, shocked, when I saw what was happening on TV. Something like this had never happened in Ulaanbaatar. It was wrong.</i></p> <p><i>I was at home, watching on TV in shock. We couldn't believe what was happening. My father said that for three days we had to stay home, to not go out, that it was dangerous.</i></p> <p><i>It was good for us, we have our own voice. At the time I was terrified. Now I think it was a very good thing.</i></p> <p><i>China influenced us to riot.</i></p> <p><i>It was not good for all Mongolians. I was uncomfortable when I heard what was happening. It was horrible. I saw men who were shooting people.</i></p> <p><i>It was my grandfather's birthday and we were in the country. I remember seeing it on TV, and my grandfather said it was political parties fighting each other.</i></p> <p><i>It was terrible. The parties got people to burn down buildings.</i></p> <p><i>I was in the countryside so I had no cellphone service. When I heard what was happening, I called all my close family and friends to make sure they were okay. The riots were so wrong. I will never forget.</i></p> <p><i>I was so afraid. I saw tanks and guns and police.</i></p>

While far from comprehensive, this section attempts to contextualize our survey data in the historical settings that Mongolians found significant. It is impossible to isolate the effects of any one of these events, but even without isolation, I believe the data supports my hypothesis that these events influenced value development. In the next chapter, I explore the data and expand upon the data's relationship to the external variables discussed in this section

5.0 Findings

In an effort to answer the research questions (What historical events may have influenced value development in Mongolian society? Does reverence for Chinggis Khaan tangibly influence personal beliefs? Is Mongolia moving toward or away from Soviet values, and is this movement comparable to other Eurasian, post-Soviet states?) our study specifically measured four value categories. First, critical thinking, second, the role of women, third, values perceived to be important to Chinggis Khaan, and fourth, values respondents say children should learn at home. In this chapter I discuss these values primarily through cohort analysis. While this study alone does not prove causation, I nevertheless believe it is important to discuss possible causes for this study's findings, as this lays the groundwork for future research.

5.1 Critical Thinking

Western audiences may think of Soviet citizens as mindless drones, loyal and unquestioning workers who never stopped to question the political system of their State. Those who somehow managed to develop critical thinking were shut down in the swift authoritarian style portrayed in *1984* or *Brave New World*. But is this perception true, or a result of Western propaganda? Unfortunately, critical thinking measures from the USSR are not available, so researchers must use modern data, acknowledging a variety of external factors that can now influence critical thinking, rather than a more isolated sample of those who lived their entire lives in a closed Soviet Union. In Mongolia, we gathered data that challenges preconceived notions of

critical thinking in the Soviet Union and shows potential cognitive under-performance in those raised in the instability of Mongolia's modern democracy.

While there has been relatively little research specifically analyzing the relationship between age and critical thinking ability, what research there is shows that critical thinking peaks between the ages of 20 to 30. A Harvard University study compiling the critical thinking data of over 48,000 participants utilized seven different measures to map various components of critical thinking. Country of origin was not recorded among study data, but many respondents did report that English was not their first language, indicating a multi-country sample. Peak performance in vocabulary and emotional connection occurred between 50 to 70 years. However, the other five measures related to symbol coding, replication, visual reasoning, and memory peaked between the ages of 20 to 35.^{xiii}

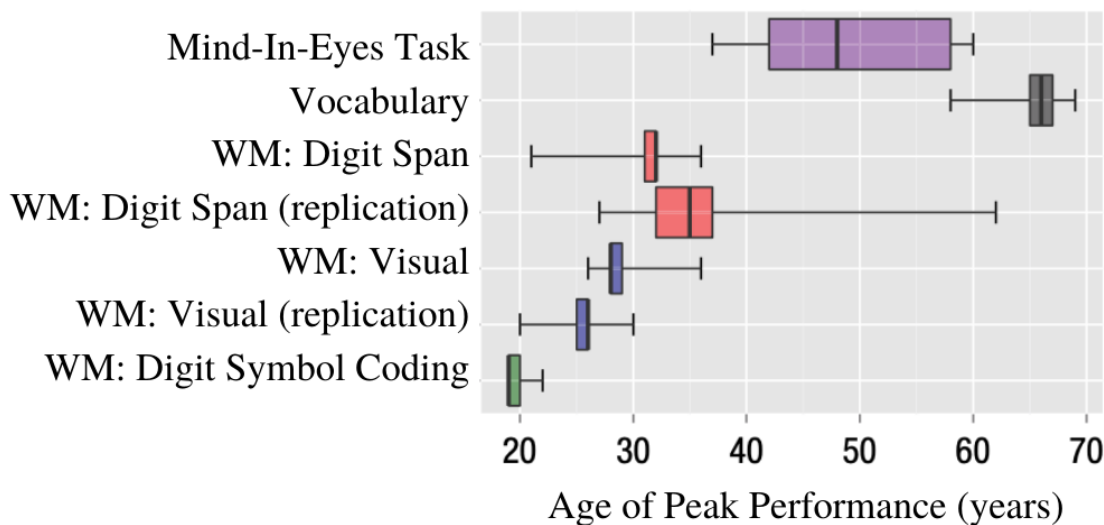


Figure 2: Hartshorne, Germine Critical Thinking Peak Hartshorne, Germine Critical Thinking Peak^{xiv}

In 1958, a study of 484 Canadians found similar trends. This study broke down critical thinking into five categories, and combined composite scores in the table below. Thus, the same trend was found: critical thinking peaked between the ages of twenty and thirty.

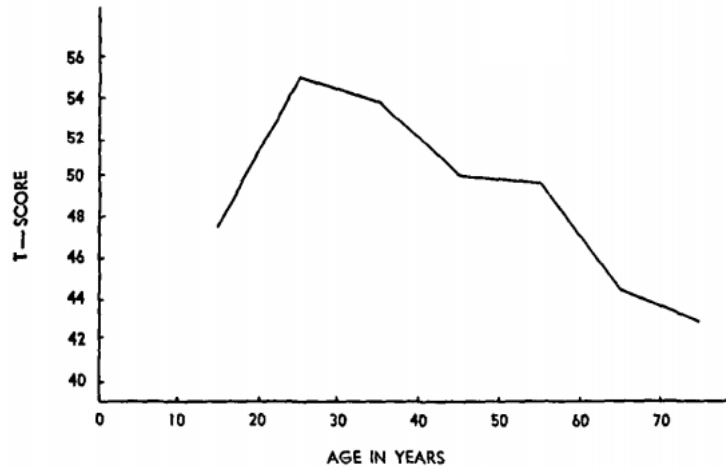


Figure 3: Age changes in critical thinking ability (composite of five subabilities) ^{xv}

In contrast, data from Mongolia told a different story. Instead of young people reporting the highest scores, and older cohorts the lowest, the effect was reversed.

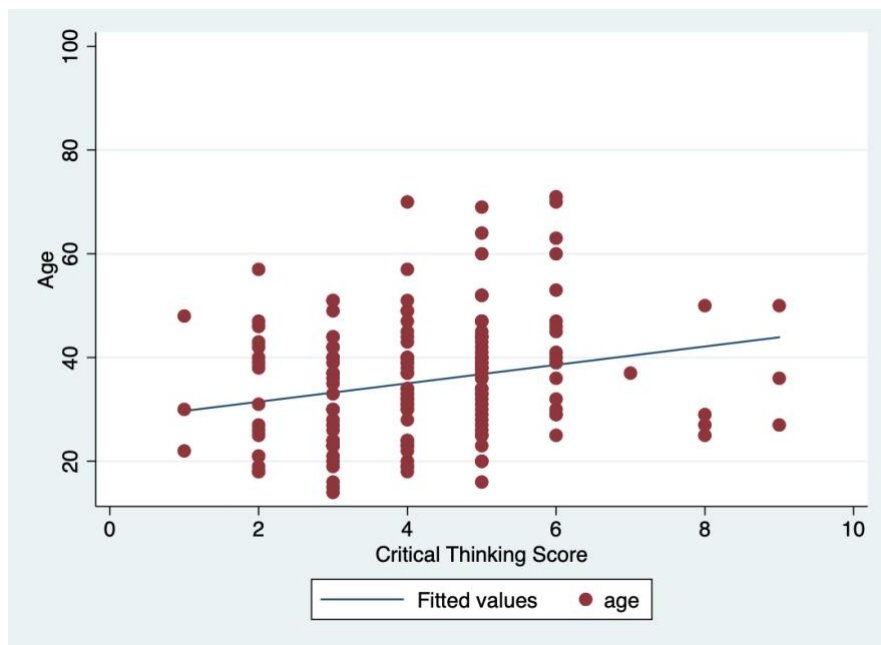


Figure 4: Scatter Plot and Best Fit Regression for Age/Critical Thinking Score

Figure 4 shows that, on average, the youngest cohort had lower scores than older cohorts, the opposite of development tracked in previous studies. So, which studies show the natural human capacity for critical thinking with age, and which is atypical? I hypothesize that the Western studies accurately show typical development, primarily due to the absence of extreme factors that could influence critical thinking development. If true, this means that rather than older Mongolians having gained critical thinking ability as they age, they actually had much higher ability in their twenties and thirties. Additionally, as today's youngest cohort ages, they will decrease in critical thinking ability dramatically as they age; their low scores will only get lower. This points to problems for future generations, as teachers and parents in C1 will have low critical thinking and thus struggle to cultivate critical thinking in their students and children.

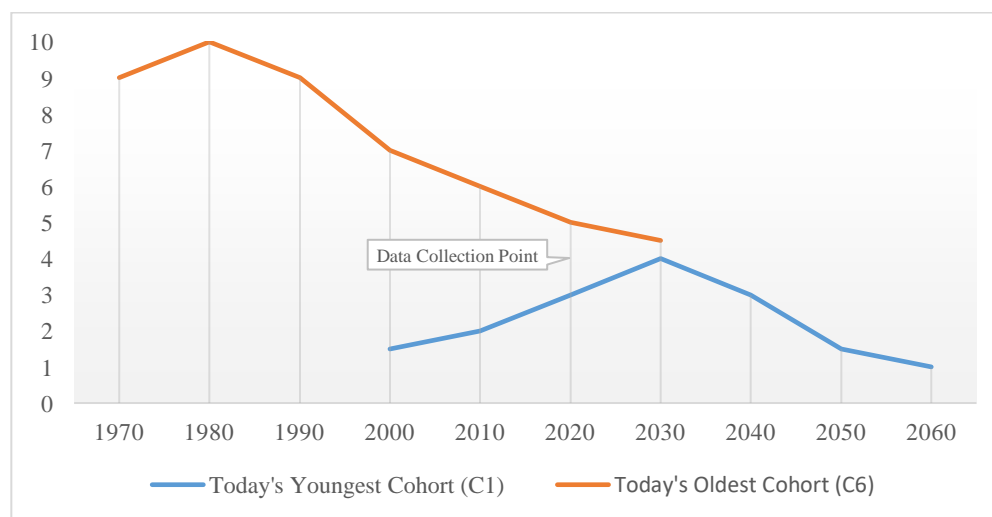


Figure 5: Hypothesized Critical Thinking Ability Over Time

This is an important area for future study: to determine whether Mongolians develop critical thinking differently throughout their lifespan, or whether cohorts are truly experiencing significantly different peak points between their twenties and thirties.

A critique of this data must be mentioned. This test only measured one type of critical thinking: deductive reasoning. Categorical syllogisms composed of a major premise, minor premise, and conclusion were presented. For example:

There are black cats only if there are pink cats.

There are black cats.

Then would this be true: There are pink cats.

Because questions were only presented in a singular way, this study by no means accurately mapped the entirety of respondents' critical thinking ability. However, this presentation is highly mathematical, and aligned closely in premise with measures that previous studies identified as peaking between 20 and 30 years old.

Our data also showed that gender, education, and economic class produced no differences in critical thinking ability. To analyze these findings, I will hypothesize using external variables, as this study does not have the ability to prove any causation regarding critical thinking.

5.1.1 Changes in the Educational System

Mongolia did not have a widespread or compulsory educational system before the Soviet occupation in 1921, and this adaptation was an intentional societal change instituted by the Soviets. Nomadic primary and secondary schools were an integral component to the Soviet education system, which helped to produce near perfect literacy rates among both rural and urban populations from 1950-1990. However, when the USSR collapsed, the Mongolian government did not have

the resources to adequately fund these schools, and many were shut down after becoming health hazards. While the government promoted educational reforms immediately after the Soviet withdrawal, few proactive changes actually materialized, and the underfunded system continues to degrade.^{xvi} Other post-Soviet countries have experienced similar difficulties in transitioning educational systems away from fear-based Soviet methodologies of rote memorization and competition.^{xvii} Teachers and lawmakers continue to lack ideological capacity to implement reform.^{xviii}

The Russian traditional curriculum focused heavily on mathematics, second only in time allocation to Russian language and literature.^{xix} While the Soviet educational system may have focused less on ideological individualism, typically associated in the West as part of applied critical thinking, researchers found that in 1986, Soviet first-grade textbooks contained anywhere from three to 10 times more mathematical word problems than American textbooks,^{xx} which points to evidence of selectively taught critical thinking, and relates in formula to the mathematical form of the critical thinking scale we administered.

Not only did the Soviet Union implement widespread primary and secondary education, but also higher education. At the height of the Soviet Union, U.S. researchers were amazed at the disproportionately large number of higher education institutions in Mongolia, in comparison to the small population.^{xxi} Today, there remain an exorbitant number of higher education institutions in Mongolia, including for-profit universities. However, quality of education varies widely, and many universities are seeking international accreditation to improve legitimacy.^{xxii}

While an oversimplified analysis of changes to Mongolia's educational system from 1921 to the present, this timeline hits on main points that could explain the critical thinking ability seen in our data. Even though ideological critical thinking was not emphasized in the Soviet Union,

there is evidence that mathematical or scientific creative thinking was prioritized, thus enabling today's oldest generation to better answer the type of logic problem we presented.

5.1.2 Violence vs. Stability

While World Bank data only goes back as far as 1996, it is likely that the Soviet Union had significantly higher rates of government stability and less terrorism and violence. This can be seen when comparing today's authoritarian regimes to unstable democracies worldwide.^{xxiii} Thus, it is likely that Mongolians raised after the 1994 withdrawal of the Soviet Union experienced more instability and violence than older generations during crucial windows of development. Even looking at data starting in 1996, Mongolia has lower Rule of Law and Control of Corruption scores today than twenty years ago. Today, Mongolia is in the bottom quartile for government effectiveness.^{xxiv}

While personal freedom was heavily restricted in the Soviet Union, lower levels of violence and greater stability could have enabled greater critical thinking development in the children of this era.

5.1.3 Food Security

Throughout recorded history, Mongolia has had significantly lower levels of per-person caloric supply than other post-Soviet countries, Russia, and America. An additional dip can be seen when food became less accessible leading up to Soviet withdrawal.

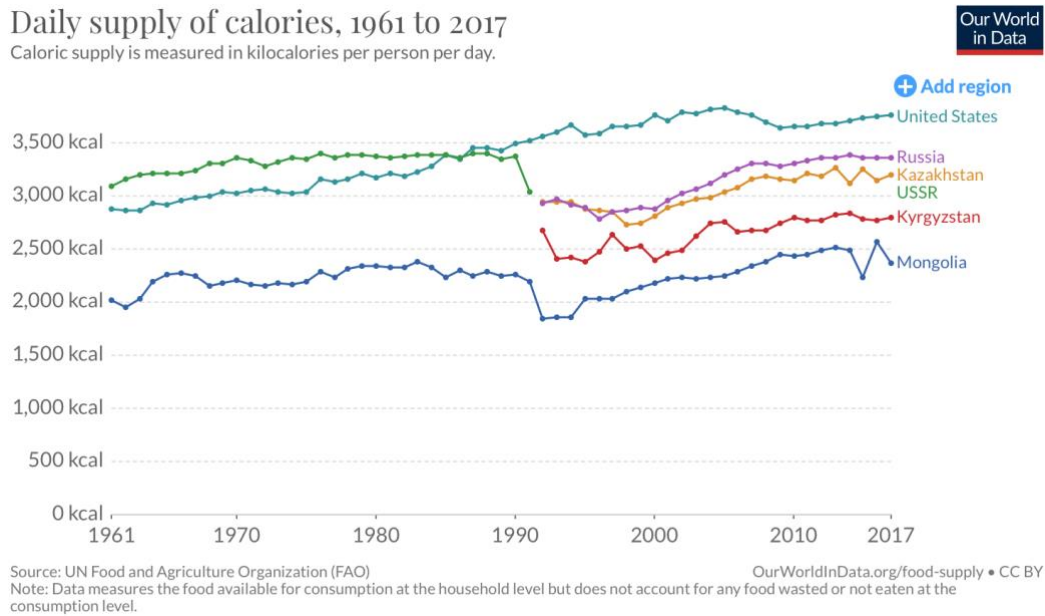


Figure 6: Daily supply of calories, 1961 to 2017^{xxv}

Caloric intake plays an important role in intellectual cognitive development, and impact on critical thinking is supported by differences in economic class, given that higher economic classes have greater access to food.

Even when factoring out age, economic class makes a difference in critical thinking. This finding follows accepted theories of cognitive development^{xxvi} that greater resources increase childhood brain development.

Table 3: Regression of Critical Thinking Scores and Economic Class, Absorbing Age

N=122				
Critical Thinking Score	Coef.	Std. Err.	t	P> t
Economic Class	.488	.196	2.49	.015

Cognitive interviews also supported class differences in critical thinking, with many low-income respondents reporting that they never had time to form opinions on such questions, and they often had no opinion or gave up during the survey.

5.1.4 Intellectual Property Rights

World Bank data shows that patent applications soared from 1992 through 1997, around the withdrawal of the Soviet Union and the Mongolian government's emphasis on individual rights. However, patents begin to decrease after 1997 following the same trend line as rule of law.^{xxvii} When corruption is high, individuals are not incentivized to entrepreneurial critical thinking due to the fragility of private property.

5.1.5 Self-Preservation and Critical Thinking

While cognitive interviews encountered a lack of overt criticism for Soviet policy, there is some evidence that Mongolians living in the Soviet period recognized inconsistencies within the regime. Batzorg, now retired, worked as a commissioned officer in the Soviet army and was a midlevel official in the military's propaganda unit.[‡]

"I would be given news to publish, but I knew it wasn't true. They would talk about how the Soviet Union was strong and expanding, but because I was in the military I knew this was

[‡]All names are fictitious and no personally identifiable information was collected from respondents.

wrong. But I published it anyway because I would have been punished. It became a joke among many of us. I think many people knew what they were telling us was not true.”

Thus, we see evidence that at some level, Mongolians were able to think critically about the regime in order to survive in the system. This could be a contributing factor toward older generations’ greater critical thinking scores.

5.1.6 Conclusion to Findings on Critical Thinking:

Critical thinking data indicates that older generations have greater critical thinking ability than younger generations, despite evidence that critical thinking ability peaks between the ages of 20 to 30. This is the opposite of what was originally hypothesized by the researcher, who assumed the lack of critical thinking seen in Mongolian institutions today were largely the result of the Soviet Union’s educational system. It is more likely to be result of today’s underfunded educational system relying on using the leftovers of the Soviet Union’s system, as well as increases in violence and instability in the country. However, we can make no claims for causation in this study, and instead list possible factors to encourage future study.

5.2 Gender Equity

Throughout post-Soviet Eurasia, a unique combination of ancient nomadic tradition and anti-Soviet nationalism contributes to modern views of gender equity. In this study, survey respondents commonly acknowledged the importance of women in Chinggis Khaan’s empire. The

Great Khaan appointed his mother and wives as strategic advisors and entrusted the daily operation of his vast empire to his daughters. While his sons led his army on the battlefield, it was his daughters who directed military strategy.^{xxviii} Additionally, he was one of the first major world rulers to outlaw the sale of women and encourage their education.

Despite Chinggis Khaan's recognized value of women, violence against women is prevalent in Mongolia. One in seven women are reported to have experienced sexual violence after the age of 15. One in ten experienced sexual violence as a child. While I did not ask directly about gender violence or bias with interview respondents, several women volunteered information about their experiences (Table 4).

Table 4: Comments by women relating to cultural norms of violence and bias against women

"The government prohibits the sale of alcohol on the first day of the month because it is supposed to protect women and children from drunk men. But the men all buy the alcohol the day before and stay home and drink. Then they get drunk in the house and beat their wives."

"I keep trying to apply for jobs in science, but all the posts say the same thing: men only."

"Oh, that's the apartment where a man threw his girlfriend out the window. He thought she was cheating on him, but she wasn't. Men kill their girlfriends all the time because of that."

"My aunt's husband died, so she herds the animals in the countryside. She has been raped many times because she is alone."

"Even though girls work very hard, school is easier for boys because teachers make it easier for them. It's not fair."

Given this dissonance between Chinggis Khaan's documented egalitarian views and the state of Mongolian women today, this study's findings examine several possibilities. Did the Soviet Union's emphasis on gender equality give way to nationalistic paternalism in the younger

generations? Or are younger Mongolians liberalized and embracing progressive views of gender equality? Additionally, do people who honor Chinggis Khaan hold a similarly liberal view?

Taken from the World Values Survey 6, the four survey statements that measured gender roles were: 1) When a mother works for pay, the children suffer. 2) On the whole, men make better political leaders than women do. 3) A university education is more important for a boy than for a girl. 4) On the whole, men make better business executives than women do. Respondents were then asked whether they agreed or disagreed on a four-point scale.

The first question had to be completely removed for validity concerns and data from this question was not included in the study. Cognitive interviews revealed that when respondents considered the fictional situation where a woman was working outside the home, they assumed that she would not have childcare. In Mongolia, this is a real consideration. Low-income women with no family support are often forced to leave their children at home if they work outside the home. This includes infants and toddlers, who women will tie to furniture over the course of the day. A charity director who works in the ger districts around Ulaanbaatar (similar to shanty towns in other countries) reported that she has clients whose children have died from forced neglect. In -50 degree winters, a ger fire will extinguish long before a mother returns home from work. In this reality, respondents were not making a value judgement on the ability or role of the mother due to her gender, but to the harsh realities that Western scale creators had not anticipated.

While the question regarding gendered access to education maintained validity, cognitive interviews revealed conflicting reasoning behind answers. As outlined in Table 5, respondents often considered men more than they did women in answering the question. Women who agreed that education was more important for boys did so not because women were inferior, but because they believed lack of male education was creating undue burden for women and leading to societal

problems like alcoholism. On the other hand, men who thought education was equally important for both genders still mentioned the inferiority of girls. While approving of equal access, men often simultaneously stated that men had greater capacity to learn. Thus, the data likely underplays male bias.

Therefore, we can see from cognitive interviews that these series of questions were not ideal in measuring views on gender equity. This is a concern that casts doubt upon the validity of the WVS data using this scale. It is unlikely that Mongolia is the only country where the scale lost validity. Cognitive interviews should be conducted alongside the WVS to detect validity errors that come from cross-cultural application.

Table 5: Chart of Cognitive Interview Responses by Gender regarding Gender Bias Scale

	Agree education is more important for boys	Disagree education is more important for boys
Men	<p><i>"Men are better than women. Look at Chinggis Khaan. He is a man."</i></p> <p><i>"Men have the ability to see grand vision."</i></p> <p><i>"Men are better."</i></p>	<p><i>"All are equal. Today, men are not paying attention. Women are better than men."</i></p> <p><i>"Women do better than men because they work and care for their children. Men cannot do both."</i></p> <p><i>"Men are smarter than women in all ways."</i></p> <p><i>"It is hard to find a really wise and smart woman. But we are all equal and have the right to education."</i></p> <p><i>"If men are wise and women are silly, how will we live together?"</i></p> <p><i>"We all have the right to education. Women are better at social work, but men are more visionary."</i></p> <p><i>"My boss is a woman and she leads the company very well."</i></p>
Women	<p><i>"Boys are better because in the family men are responsible for more things. Women give birth and take care of children."</i></p> <p><i>"Today, women have better education than men. Men need education to become responsible."</i></p> <p><i>"Women have to manage everything. In our society today, women are getting stronger. But men need to be more knowledgeable than women."</i></p> <p><i>"Men need more education."</i></p> <p><i>"Men need education. If men grow educated, there will be less people addicted to alcohol."</i></p> <p><i>"I have three boys and a girl. I can only afford university for the first two boys."</i></p>	<p><i>"People think that men are better, but women are stronger than men. Women are starting to believe in themselves."</i></p> <p><i>"It is a basic principle for me that everyone should have access to education."</i></p> <p><i>"We're all equal. We all have the right. Both boys and girls have to go to school. ...Women are more responsible than men. We take care of children but also work."</i></p> <p><i>"Women are good at making decisions related to children."</i></p> <p><i>"We all have the right to education...but it is the unwritten law that men are better at politics than women. Men are more visionary for the future than women."</i></p> <p><i>"In education, women are better for things like doctors. In mining and many activities, men are better than women."</i></p>

Table 5 includes numerous mentions to women and their role in childbearing and rearing. While Western viewers may interpret such comments to imply women are inferior, this may not be how such comments are intended, consciously or subconsciously. Since the early 1970s Mongolia has experienced a severe fertility rate decline. As a result, the government has created

financial stipends and honorary awards for women who produce certain numbers of children. For example, the “First Order of Glorious Motherhood” is awarded to women with six or more children.^{xxix} This is considered a high honor, and such medals are proudly worn and displayed by women at formal ceremonies and on holidays. Thus, Mongolians do not necessarily consider women’s assignment to childrearing as inferior.

While validity errors were identified, there is still a strong indication that women value themselves more highly than men value women. As seen in Figure 7, the majority of men and 50 percent of women believe men are better political leaders. The presence of male bias in Figure 7 is problematic for gender equity, because research shows that male participation in gender equity is crucial in changing societal gender norms.^{xxx} Men are needed to break cycles of oppression, as managing to reach empowered positions is especially difficult for women.

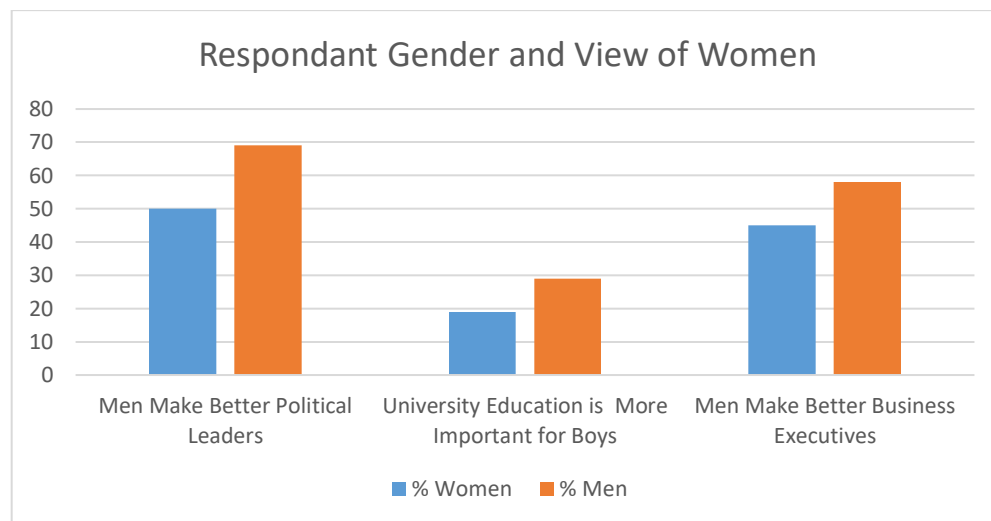


Figure 7: Relationship between Gender and Equity Values

Analyzing responses by age is an important step in determining cultural value movement. Bias against women in politics is increasing in Mongolia with respondents under 30, while

comparably, bias in post-Soviet Kazakhstan and Kyrgyzstan is decreasing. However, bias against women in education and business is decreasing in Mongolia and is significantly lower than comparable countries.

Table 6: Percentage of respondents who agree or strongly agree

<i>2010-2019</i>	Mongolia		Kazakhstan		Kyrgyzstan	
<i>Age</i>	50+ N=181	<30 N=72	50+ N=420	<30 N=475	50+ N=356	<30 N=495
<i>Men make better business executives than women do</i>	55	47.2	52.9	52.1	53.7	55.8
<i>Men make better political leaders than women do.</i>	59.7	66.7	69.2	64.8	64	60.4
<i>University is more important for a boy than for a girl.</i>	37.9	23.6	21.9	21	35.9	43.3

Table 6 indicates that gender roles are highly segmented in Mongolian society, and that through the increased bias of young people, a power imbalance is likely to grow as the majority of Mongolians believe that men are better political leaders than women. This will undoubtedly make it increasingly difficult for women to be elected in the future. Only 17 percent of parliamentary seats in Mongolia are held by women,^{xxxii} bringing them far short of the ability to fund and promote programs combating gender violence and inequality. However, time series data should be collected to determine how values move over time, and whether young people liberalize with age. This would be surprising, as it would be the opposite of social movements seen in the West, where people become more conservative with age.

Economic class and education levels did not signal respondents' gender bias for either sex. This means that Mongolia's educational system is likely not encouraging gender equity, or at least not in any way that trumps other societal influences. This indicates that women of power, who are

highly educated and/or wealthy, are unlikely to use their influence to improve the state of women in Mongolia.

These scales only scratch the surface of the complexity that is gender equity in Mongolia. While simultaneously asserting that women have the right to education and the acknowledgement that Chinggis Khaan valued women, the same respondents also criticize modern women and indicate gender bias. Thus, it is time to discuss how the veneration of Chinggis Khaan impacts personal beliefs.

5.3 Beliefs about Chinggis Khaan

5.3.1 Connecting Veneration to Personal Beliefs

A central research question of this study asks: Does reverence for Chinggis Khaan tangibly influence personal beliefs? Chinggis Khaan is upheld by individuals and institutions alike as a representation of what it means to be Mongolian. So, do those with an intentional veneration of Chinggis Khaan have distinct personal values that align with his example?

Within the values we measured in the survey—critical thinking ability, value of women, and values respondents say children should learn at home—a personal emphasis on Chinggis Khaan made relatively little difference.

In the survey, one question was specifically designed to measure whether the respondent held Chinggis Khaan in particularly high honor. The question asked respondents to self-generate a list of items on the respondent's home altar or place of honor. Such a spot is common in

Mongolian homes. If the respondent self-reported an image of Chinggis Khaan on their altar, the answer was recorded.

The group with Chinggis Khaan on their altar was more likely to believe he held a high view of women. However, this belief did not differentiate the group in their own modern beliefs toward women. Additionally, this group was less likely to report that Chinggis Khaan valued harmony, and more likely to say he valued intellectual autonomy. Yet, the group's critical thinking average was not significantly different from the rest of the population.

Table 7: Table of Individual Logistic Regressions

Chinggis Khaan in Home	Coef.	Std. Err.	z	P> z	n
Age	-0.879	.037	-2.36	0.018	83
Perception of CK's Value of Women	.692	.318	2.18	0.03	81
Perception that CK Valued Intellectual Autonomy	1.562	.632	2.47	0.014	83
Perception that CK Valued Harmony	-1.581	.656	-2.41	0.016	83
Personal Value of Modern Women	.0887	.398	0.22	0.824	83

Younger people were more likely to have a picture of Chinggis Khaan on their altar. Fitting with overall population trends, this also means they were of higher education and economic status, and from the city. While traditional or historical identities are typically thought to be held by older generations, here, we see the new Mongolian identity embraced by young people. This finding gives support to the theory that the concept of Chinggis Khaan is used as a tool for nationalism, which is popular among younger generations.

While potentially indicative that the intentional honoring of Chinggis Khaan does not impact personal beliefs, there could also be a flaw with the validity of the question. This can be seen in other answers. Apart from Chinggis Khaan, respondents also reported photos of relatives and images of Buddha, Jesus, K-Pop stars, and famous soccer players on their altars. While it is reasonable to expect that the teachings of Buddha or Jesus could direct a person's personal beliefs,

only the most passionate fanatics would actively live their lives by the teachings of their favorite athlete or performer. Thus, it is likely the altar itself is decreasing in importance in modern Mongolian society. Additional objective measures should be utilized in future research to confirm the absence of differences in behavior between the two groups.

5.3.2 Perceptions of Chinggis Khaan in the Wider Population

In addition to measuring the distinctiveness of beliefs among Chinggis Khaan's followers, this study also explored the general population's perception of Chinggis Khaan. Respondents were surveyed using a values scale that measured their perception of the historic leader. These responses produced distinct generational cohort differences. To determine cultural shifts in beliefs about Chinggis Khaan, I took from Shalom Schwartz's Theory of Cultural Value Orientations.^{xxxii} Schwartz outlines seven value orientations that he formats to a circle, where slices of the circle that stand opposite of one another are the furthest apart in values distance. The values measured are harmony, embeddedness, hierarchy, mastery, affective autonomy, intellectual autonomy, and egalitarianism. Taking measures of these values, Schwartz then plots the value orientation of countries into a relations map.

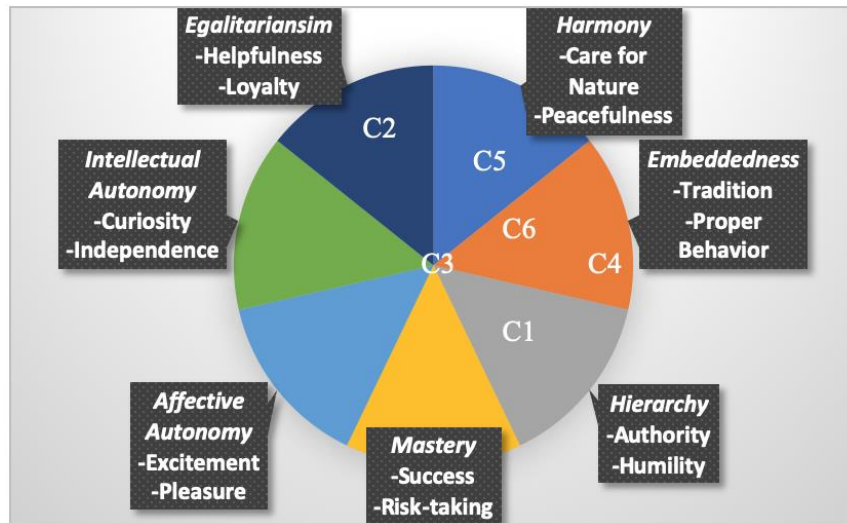


Figure 8: Schwartz' Cultural Dimensions with Cohort Overlay xxxiii

Because the question formations for this study were not exactly the same as data measures used by Schwartz to create his scatterplot of value orientations, the two are not directly comparable and Mongolia cannot be integrated into the map. However, the Mongolian data nevertheless tells a story of cultural shift that is interesting to approximate. Older cohorts were more likely to mention that Chinggis Khaan valued Embeddedness and Harmony, similar to many Eastern European states. Middle cohorts were more likely to mention egalitarianism, potentially comparing with socialist or post-socialist states in Latin America. Mongolia's youngest cohort was more likely to mention hierarchy. Distinct value movement can be seen in Table 8.

Table 8: Regression, Chinggis Khaan Values by Age

	<i>Embeddedness</i>	<i>Harmony</i>	<i>Egalitarianism</i>	<i>Intellectual Autonomy</i>	<i>Affective Autonomy</i>	<i>Mastery</i>	<i>Hierarchy</i>
<i>Cohort 1 14-25</i>							.06 .031
<i>Cohort 2 26-35</i>			.039 .062		-.036 .08		
<i>Cohort 3 36-45</i>							
<i>Cohort 4 46-55</i>	.068 .008		-.04 .083				
<i>Cohort 5 56-65</i>		.045 .068					
<i>Cohort 6 66-85</i>	.047 .013						

While this scale attempted to measure respondent's beliefs about how they perceived Chinggis Khaan, cognitive interviews revealed that many interpreted the question as "If I were Chinggis Khaan, what would I think was important?" This likely is related to the low levels of critical thinking discussed earlier. The values in Table 8 also align well with generational differences in other data scales (see Table 10). This finding supports the likelihood that respondents were projecting their own values onto Chinggis Khaan.

It is important to note that in the non-significant boxes indicate variance in responses. Rather than thinking of these as non-significant, these boxes indicate groups with the widest diversity of thought, which is an equally relevant finding. Cohort 3 has the widest diversity of thought. When considering the external variables discussed in the previous chapter, Cohort 3's diversity indicates the impact that growing up in the Soviet Union, experiencing the withdrawal and turbulent transition period as teenagers, and living their adult lives in a new democracy had on their personal value development. Having been exposed to such a diversity of experiences and value systems in their critical development periods, this cohort has diversity of thought unlike

older and younger cohorts who have spent most, if not all, of their lives under a particular value system.

It would be remiss to end this discussion without addressing external portrayals of Chinggis Khaan that could also influence responses. Throughout the last century, the portrayal of Chinggis Khaan in popular literature, textbooks, movies, music, and other media was continually evolving. This may also have impacted responses. Dr. Christopher Kaplonski documents the transitioning narrative in his work “The Case of the Disappearing Chinggis Khaan: Dismembering the Remembering.”^{xxxiv} In the early 1920s and ‘30s, histories published contained divine language, treating Chinggis Khaan as a godlike figure. In the 1940s, the narrative switched to pro-Marxist language, where Chinggis Khaan was portrayed as destroying advanced civilizations and replacing them with archaic Mongolian feudalism. This negative portrayal continued throughout the Socialist period. Post-Soviet rhetoric has since returned to godlike portrayals of the Great Khaan. While only a small percentage of respondents mentioned drawing from books or movies for their answers, the historical portrayal of Chinggis Khaan is a variable that deserves mentioning.

While Table 8 shows differences in age, there was also one striking difference by gender. Women were more likely to report that Chinggis Khaan valued affective autonomy, that is, the ability to do what one wants. Sadly, given that respondents are largely projecting their own values onto Chinggis Khaan, here we likely see evidence of frustration at the lack of independence for women in Mongolian society.

Table 9: Regression Response Difference in Chinggis Khaan Values by Gender

N=443				
Affective Autonomy	Coef.	Std. Err.	t	P> t
Gender	.126	.059	2.21	.028

Regardless of the reasoning behind survey answers, it becomes clear that Mongolians do not have a unified understanding of who Chinggis Khaan was or, in any specific terms, what he stands for today. While it is largely accepted that Chinggis Khaan is used as a tool for national identity and unification in the aftermath of Soviet withdrawal, Chinggis Khaan becomes an empty symbol when generations disagree on what it is he actually represents. Each generation's projection of their own value systems onto Chinggis Khaan helps to address a central question to this study, asking why individuals and institutions that hold up Chinggis Khaan as an identity symbol behave in contrary ways, specifically when there is significant historical evidence of a particular viewpoint, such as Chinggis Khaan's view of women. Chinggis Khaan has less tangible impact on Mongolian cultural development today than Mongolians and foreigners alike are wont to think.

5.4 The Future of Mongolia

In previous sections, study findings focused on potential causation between events in Mongolia's history and generational value shifts seen today. However, of equal importance is Mongolia's future and where value shifts could be leading the country. This is immensely relevant to U.S. foreign policy and security studies, as Mongolia has long been upheld by the U.S. government as a success story for transitioning democracies in East Asia.

In 2012, U.S. Secretary of State Hillary Clinton called Mongolia "an inspiration and a model," stating that it stood in stark contrast to other Asian countries eliminating the freedoms of their citizens. Though she did not name it outright, her comments were directed toward China^{xxxv}. If America holds Mongolia as a model of post-Soviet or post-communist democracy in Asia, it is

important to have a realistic understanding about where the values of the country are heading in the future, as the young people of today will be the politicians and leaders of tomorrow.

5.4.1 Mongolia's Cultural Values Relationship to the United States vs. Russia and Post-Soviet States

To identify future movement, cross-cultural comparison is necessary. For this purpose, I chose a values scale from the World Values Survey 6 that asked respondents to choose up to five listed values respondents believed are important for children to learn at home. These values are: independence, hard work, responsibility, imagination, tolerance and respect for other people, thrift, determination, perseverance, religious faith, unselfishness, obedience, and self-expression. These answers were binary yes/no answers rather than ranked[§]. The option Self-Expression was removed when preliminary analysis showed unusual results in cross-country comparison. After consulting with several native speakers, it was identified that while the translation was accurate Mongolians interpret the concept as “one who speaks eloquently” rather than the WVS6’s intended definition of “showing who you are” or “being who you want to be.”

Comparison was conducted through finding the overall mean for each country, and then finding separate averages for the cohorts 50 and above and below 30. While I would have liked to create more extreme cohorts based off of significant findings previously discussed, these were the age breakdowns recorded by WVS6. Countries used for comparison are Russia, the United States, Kazakhstan, and Kyrgyzstan.

[§] Ranking is useful for cross-country comparison and would be a beneficial addition to WVS7. This would create measures of importance, rather than limited binary mentions.

Kazakhstan and Kyrgyzstan hold key similarities and differences with Mongolia that must be considered for comparison. All three are historically nomadic populations, and all three were a part of the Soviet Union. However, both the ‘Stans saw active revolutions and social movements in rebellion of the Soviet Union while Mongolia saw comparatively little resistance. This makes sense considering both the ‘Stans were forcibly occupied while Mongolia invited the Soviet Union into the country to fight the Chinese. Religious influence differs greatly as well. The ‘Stans were heavily influenced by Sufism before the Soviet Union, while Mongolia has strong ties to Tibetan Buddhism. Today, Kazakhstan and Kyrgyzstan have seen a significant rise in fundamentalism,^{xxxvi} while nationalism has risen in Mongolia.

On the whole, Mongolia is closely linked with the United States rather than Russia or comparable post-Soviet countries. A low importance of structured religion is the only value where Mongolia shared close similarity with Russia and the ‘Stans. Americans are one to five times more likely to mention religion as an important value, depending on their age.

However, both Mongolia’s older and younger cohorts align with the U.S. for responsibility, thrift, and determination.

Obedience, hard work, and tolerance are where we see generational shifts. For these values, Mongolia’s older generation shares views with Russia and the ‘Stans. The younger generation, however, has shifted into alignment with the United States. Tolerance was mentioned more often for Mongolian and American young people, while hard work and tolerance were mentioned less. Universally, obedience was rarely mentioned among all countries’ young people. This finding makes sense, as young people, less likely to have children themselves, universally do not like emphasizing the obedience of young people (their own obedience).

For three values, Mongolia is distinctly unique. Surprisingly, the older generation of Mongolians has significantly more mentions for imagination than any other country (137% to 411% more). Mentions do not change significantly for young Mongolians, but an increase among young Americans brings the two cohorts into alignment. Mentions among Russia and the ‘Stans are consistently low. Mongolia also reports significantly more mentions of independence than any other comparison country (197% to 121% more). This finding could be due to low construct validity through the translation process, or to an unknown external variable. Such a variable could be Mongolians’ high bias against China. As seen in this study, many Mongolians do not view the Soviet Union as an oppressive force, but one that helped them gain independence from China. The third value where we see a unique finding is unselfishness, where it is more frequently mentioned in Mongolia than the comparison countries (162% to 226% more). I hypothesize this finding is due to the influence of Buddhism, a variable that is unique to Mongolia.

Table 10: Cross-Country Values Means Comparison (Min=0, Max=1)

	United States		Russia		Mongolia		Kazakhstan		Kyrgyzstan	
	50+ N=1,147	<30 N=393	50+ N=1084	<30 N=564	50+ N=188	<30 N=72	50+ N=398	<30 N=459	50+ N=356	<30 N=495
<i>Age</i>										
<i>Hard Work</i>	.652	.644	.913	.767	.756	.611	.884	.808	.857	.824
<i>Tolerance</i>	.758	.662	.714	.528	.574	.611	.691	.564	.593	.598
<i>Imagination</i>	.278	.379	.128	.212	.378	.375	.098	.150	.115	.184
<i>Independence</i>	.521	.545	.284	.48	.75	.694	.377	.495	.59	.628
<i>Responsibility</i>	.702	.580	.773	.747	.596	.569	.751	.754	.792	.76
<i>Unselfishness</i>	.323	.323	.256	.194	.527	.57	.271	.296	.301	.285
<i>Religion</i>	.504	.326	.17	.099	.106	.014	.111	.092	.247	.277
<i>Thrift</i>	.369	.254	.562	.45	.367	.264	.570	.492	.475	.331
<i>Determination</i>	.321	.389	.408	.529	.261	.417	.377	.471	.486	.545
<i>Obedience</i>	.258	.3	.378	.339	.367	.333	.379	.338	.405	.349

What is striking in these findings is that despite Kazakhstan and Kyrgyzstan actively rebelling against the Soviet Union, these countries are similar to Russia in their value structures. A rise in authoritarianism and fundamentalism in these countries is a likely cause. Despite growing

corruption in Mongolia's democracy, Freedom House^{xxxvii} rates the country as "free." Kyrgyzstan is rated "partly-free" as the nation has consistently ousted authoritarian governments since the early 2000's. Kazakhstan is rated as "least-free" and until 2019 was still under the authority of President Nursultan Nazarbayev, appointed by the USSR to govern the Kazakh SSR.^{xxxviii}

Researchers point to the Islamic religious revival in Kazakhstan and Kyrgyzstan as a shaper of cultural values in these countries. Take the findings of Barbara Junisbai et. al:

Finally, religious orthodoxy, as measured by support for shari'a-based law, increased significantly ... Combined, these developments suggest a growing acceptance of religious values, as well as political preferences that reflect religious values. ... Greater religiosity can be associated with lowered support for political tolerance, pluralism, and liberal democracy...^{xxxix}

Therefore, it is likely that the values reporting of Russia, Kazakhstan and Kyrgyzstan do not derive from the same source. Here, Islamic religious orthodoxy mimics Soviet values through authoritarian commonality. Mongolia on the other hand, though largely friendly toward the Soviet Union, has shifted toward the United States and away from Russia. This shift is likely due to the rise of nationalism and the attitude that Russia should "stay in Russia, and Mongolia in Mongolia" (See Table 11). This attitude is reflective of Mongolia's obsessive focus on national identity as a unifier after the fall of the Soviet Union. After the Soviet withdrawal, Mongolia's brand of nationalism emphasized bloodline and ethnicity.^{xl} While perhaps less overt today, there is still extreme prejudice against Mongolians of "tainted" blood, and particularly of children with foreign fathers and Mongolian mothers who are thought to sully the bloodline (while Mongolian fathers

are praised for spreading the Mongolian bloodline through foreign women). Such a base form of nationalism points out the immense lack of cultural values around which to unite the country.

As seen in Table 10, there is low agreement by Mongolia's young people about which values are important. No value broke the threshold of 70 percent agreement among the generation, and most values were mentioned by 50 percent or less. Remember, this was even to mention a value as important, let alone rank its importance. Thus, we see no clear unifying cultural values, unlike strong indicators apparent in the comparison countries. Despite clear alignment with the United States in Mongolia's youngest cohort, lack of unifying principles could give room to authoritarian nationalist movements, and should be monitored carefully by policymakers as Mongolia continues to find its place between East and West.

5.4.2 Support for Socialism or Capitalism

While analyzing cultural shifts between East and West, another measure of cultural value shift was conducted through cognitive interviews, collecting statements for or against the Soviet government. While both socialism and capitalism can be authoritarian or democratic, Mongolian respondents view the binary as socialism versus democracy. Thus, that is the language I use here. Support for socialism was tremendously more prevalent in this measure versus the WVS6 measures discussed in the previous section.

5.4.2.1 Perceived Quality of Life

While Mongolians are searching for identity, there is a common, overarching criteria: Mongolians are not Chinese, and Mongolians are not Russians; however, to be Russian is better than to be Chinese.

Table 11 is a visualization of interview answers discussing support for either socialism or democracy in Mongolia. Other than availability of goods, there are illusions to societal corruption, and most prominently, a dislike for China. Rather than pro-Russia, many statements are more accurately anti-Chinese.

Potentially related to critical thinking results discussed in the previous section, many young Mongolians had no opinion as to whether they thought socialism or democracy was better for Mongolia.

Table 11: : Qualitative interviews regarding general views of the Soviet Union and Democracy

Age	Pro-Socialism	Pro-Democracy
20-35	<p><i>"I prefer the Russians over the Chinese."</i></p> <p><i>"We thought 50/50 that there could be good or bad things coming. In the present situation it's hard to know what's going on. There's always conflict and people are tired of it."</i></p>	
35-60	<p><i>"Russian policy developed Mongolia. Chinese policy would have us stay poor. In the Soviet Union we had a milk factory and everyone could have milk. Now, only basic things are happening in the country. ... In the Soviet Union, we were under control of Russia, because of China. During the Soviet Union we were friendly with our neighbors. Now we don't care about other people because of Chinese policy."</i></p>	
60+	<p><i>"During the time of socialism, people were hard working and trustworthy. Now they're not."</i></p> <p><i>"During socialism, everything was under control. Society was good. Society is really strange now. We are developing, but people are suffering and angry. With socialism, you went to university, then you went to work because you had your written order. Now, no one has an actual job. ... Young people have their parents pay tuition but then they can't find work. Politicians are assholes. On TV all they talk about is gossip."</i></p> <p><i>"Democracy is worse than socialism."</i></p> <p><i>"Socialism was good for us. Democracy is wrong. Russian people helped us a lot. Everything was so nice and peaceful. I was sad when they left. We had independence in 1924 when our Mongolian Hero (Bogd Khaan) went to our Russian brothers for help. They helped us a lot. ... Now, we have lost the balance. The democracy now is not a good one."</i></p> <p><i>"I respected them and so I felt sad (when the Soviet Union left). We were friends even in many ways. Our Russian brothers helped us. ... during the (2008 democratic) riots, normal people were killed. I was terrified. I thought good things were coming. Now, democracy is worse."</i></p> <p><i>"I was in Russia traveling when the Soviet Union left. I cried when they left and felt so sad. Russia had been protecting us from China. China tried to conquer Mongolia three or four times. Our Russian brothers helped us. It was so strange when the Soviet Union left."</i></p>	<p><i>"A democratic country meets the needs of everyone. We need democracy like water or air. Now, Mongolia is peaceful. There is no war here. It is better for Russia to stay in Russia and Mongolia to stay in Mongolia."</i></p> <p><i>"Democracy brought freedom! There are three groups of Mongolians: herders, blue collar workers, and white collar. There are education differences with each group. Some people don't have information about democracy. People who support socialism may be herders or labor workers. ... Now, our country is developing. Fifty years ago, for Lunar New Year we did not have enough presents for our visitors. We would divide sugar into four or five cubes and give it as a present. Now, we can choose many things."</i></p>

Respondents aged 60 and over were especially vocal in their nostalgia for the Soviet era.

While this perspective could be due to deeply held political and ethical beliefs about human systems, it is also likely that older generations are faced with an especially bleak reality in the new Mongolia.

Take the story of Oyunna. We approached her while she was sitting outside with a group of friends. It was about noon and a warm day. We were in the business district of the city in a well-manicured garden outside several office high-rises. She was in her 60's with short hair and wore an old business suit. She told us:

When I was in primary school, at graduation we were put in order based on our GPA. There were a certain number of spots that we could choose from for our university studies. The two best students chose Russian studies. I got to choose third, and I chose finance. I earned a degree in finance and had a good job my whole life. ... With socialism, you went to university, then you went to work because you had your written order. Now, no one has an actual job. ... Young people have their parents pay tuition, but then they can't find work.

I went to Korea and worked for eight years. They let old people work in Korea, but we cannot work for this country (Mongolia). Now, I am retired, and it's not enough money we get from the government. And I cannot work. It is so hard.

As we walked away, my translator Purevsuren wanted to make sure I understood the context of Oyunna's story:

"You understand that she is now a prostitute, right? Her company forced her to retire so they could give her job to a young person. It is quite common. Now, she cannot get a new job and the government pension is so little. So she is working as a prostitute."

Oyunna was not the only one who specifically mentioned savings. Balormaa, a 69-year-old former school teacher, shared her story:

"I wish our democracy was like in America. In America, old people travel around the world. We cannot. Our generation does have enough savings. That is why there are differences between the U.S. and Mongolia."

As the People's Republic of Mongolia under the USSR, Mongolians participated in a redistribution plan that aimed to provide universal coverage. While the Soviet Union claimed a near complete annihilation of poverty and income inequality, researchers in the 1980's estimated that two-fifths of the Soviet population lived below the poverty line.^{xli} The Central Asian states specifically experienced significant poverty, which continues today.^{xlii} However, as a Mongolian co-worker told me in 2017:

At the time, we didn't know how it really was. Every day, the Soviet radio would play and tell us how in America, people had no light for their houses and had to sit in the dark. And how they had no food and had to eat their dogs. So, we were thankful for our Soviet protectors. When the Soviets left, my friend decided to travel to America. I thought I would never see him again because the Americans were horrible. But he came back and told us about all the wonderful things there, and how it was not true that Americans had to eat their dogs.

Thus, when not having to "eat your dog" is the standard, Mongolians believed they were better off economically than they truly were. While there is likely an inconsistency between reality and memory of quality of life for Mongolian pensioners, Mongolia's overproportioned older population has put a strain on social services, causing deficits that could reach 10 percent of GDP by 2040.^{xliii} This worry has caused significant restructuring and cuts, particularly to benefits by non-contributors. These cuts significantly impact women, as they are more likely to have contributed to their households through unofficial work. Today, 80 percent of older Mongolians identify as in poverty.^{xliv}

Thus, the bleak outlook of seniors in the new Mongolia likely drives the nostalgic support for socialism identified in this study, rather than deep-seeded cultural values that lend themselves to a particular political system.

5.4.2.2 Living with Soviet Russians

Because Bogd Khaan invited the Soviets into Mongolia to expel the Chinese, Soviets were able to employ a successful propaganda promoting the “brotherhood” between Mongolia and the U.S.S.R. Subsequently, Mongolians who we surveyed often spoke positively of the Soviet era, melding their positive experience of individual Russian Soviets with their feelings of socialism itself. In the 1980s there were an estimated 50,000 Russian Soviet civilians living in Mongolia along with a significant military presence.^{.xlv}

Munkhbeleg, now retired and in his sixties, went to Russia in the 1970s. As a Darkhad, an ethnic minority that lived in the forests of northern Mongolia, he felt more accepted in Russia than in the Mongolian capital where many Darkhad experienced racism. After university he joined the Soviet army.

“I was in Khovd aimag as an officer in the Russian army. They were like brothers. I worked as a translator. When the Russians were getting ready to leave, my coworker gave me his diplomatic bag. I felt ashamed because I had nothing to give back. So when we came back to Ulaanbaatar, I got him some Japanese cassette tapes, and we would drink together.”

Binderia, a woman in her fifties who works in one of Ulaanbaatar’s northern ger districts as a line cook, grew up in the countryside with Russian neighbors. She was in her twenties when the Soviets evacuated Mongolia.

“We used to live together, our family next to the Russian family. We thought they were friendly people. The Russian woman was fat and mean, but she would still share her bread with our family. I was sad when they left, even if the woman was a little mean.”

The abruptness of the evacuation stuck in the minds of many respondents, and they related how suddenly the order came down. Many Russians had little more than 24 hours’ notice, leaving behind full houses with food still in the pantry. While the wealthy were able to store their goods until they could come back to retrieve them, many abandoned homes were quickly looted, and Mongolian neighbors saw these families as victims of the system.

Despite their strong compassion, respondents who were alive during the 1994 withdrawal rarely questioned the ethics of such ironclad state policy, merely stating their sadness for neighbors. Mongolians who themselves were victims of state policy did not express significant resentment or distrust of the state.

“My uncle disappeared when I was a child,” Ariunzel told me. We were sitting in an old Soviet military base that had been converted to a countryside retirement village. “He was a monk, so we think he was killed. We never talked about it. It was the will of Stalin, and it was for the good of the country. I am not angry about this.”

To this day, many Mongolians remain unaware of the Soviet purges that swept Mongolia and are estimated to have killed over 100,000 people.^{xlvi}

Thus, from interviews we see that support for socialism is tied to strong emotional connection: first, to nostalgia of perceived quality of life, and second, to individual Russian people with whom respondents had positive experiences.

As we saw with the WVS6 comparison in the previous section, all generations of Mongolians, including the oldest cohort, report values most similar to the United States over

Russia or other post-Soviet countries. This finding would not be apparent, however, if the study only used qualitative measures. Interview questions related to the support of socialism or Soviet Russia did not match quantitative values data due to the emotional bias of respondents. Respondents connected positive experiences with individuals to positive experiences with the entire political system. Additionally, respondents were loyal to the terms “Soviet,” or “socialist,” to the point where these terms become buzzwords. Direct questioning about support for democracy or socialism must be taken with a grain of salt. Indirect questioning, as well as quantitative measures, are a more accurate measure of individuals’ adherence to the values of a particular political system.

6.0 Conclusion

Ethnocentrism and racism have crept in to some nationalist rhetoric in Mongolia. Instead of criticizing the use of Chinggis Khaan as a nationalist symbol, it is important to recognize the immensity and comprehensiveness of forces that worked to strip Mongolia of its unique identity since 1921. Traditional script, art, holidays, religion, nomadic lifestyle, ancient texts—all destroyed in the Soviet Union’s assimilation effort. Given 73 years of the intentional destruction of Mongolian culture, it should be taken as a tremendous cultural effort to have maintained Chinggis Khaan as a symbol uniting Mongolians today—even if no one agrees on what he represents. While the Soviet era seems like ancient history to many in the West, modern Mongolian autonomy only began 25 years ago. Twenty-five years cannot hope to form a cohesive cultural identity, and as seen in all Post-Soviet countries, cultural restoration and identity formation is a slow-moving, long-term process.

Unfortunately, Mongolia’s bleak critical thinking outlook may mean that the intentional development of a deep and unified cultural identity will be unlikely. It is particularly concerning that education has no impact on critical thinking scores. Though women are attending universities at higher rates than men, the education they are receiving does not give them a critical thinking advantage to fight for gender equity in Mongolia.

Comparing the data gathered in Mongolia with other countries in the WVS6, we see that all generations surveyed align more with the United States than Russia or other Eurasian countries. This finding indicates that, barring religious revival or an authoritarian takeover, Mongolia’s cultural values will continue to shift West. Mongolia’s dealignment with other post-Soviet Eurasian countries is remarkable, and points to the success of their democratic governance up to

this point. While certainly corrupt, Mongolians have managed to move away from authoritarian cultural trends seen in Kazakhstan and Kyrgyzstan today.

So, what does Chinggis Khaan represent? Reviewing this study, some might conclude that he represents nothing, as there is no unified cultural understanding of Chinggis Khaan. However, this is too cynical an approach. Instead of representing nothing, Chinggis Khaan represents whatever individual Mongolians need him to represent. As they project their frustrations and values onto him in the midst of a transitioning society where many feel forgotten and marginalized, Chinggis Khaan provides a sense of connection to something bigger, a cosmic meaning defined by each individual for themselves.

Appendix A - Extra Graphs

Table 12: Regression of Age and Critical Thinking Score Absorbing Education

N=163				
Critical Thinking Score	Coef.	Std. Err.	t	P> t
Age	.029	.01	2.92	.004

Table 12 shows that the average critical thinking score increases with age, even when accounting for the effects of education level.

Table 13: Factor Analysis for Schwartz' Theory of Cultural Value Orientations xlvi

	Component								
	1	2	3	4	5	6	7	8	9
ck_valueoftradition	-.448	-.392	-.173	.034	.187	-.230	-.331	-.330	.368
ck_properbehavior	-.397	-.222	-.260	-.056	-.125	-.452	.238	.356	-.345
embeddedness	-.628	-.457	-.322	-.016	.048	-.506	-.071	.017	.020
ck_careformature	-.477	-.048	.268	.176	.132	.414	.130	-.416	-.062
ck_peacefulness	-.392	.129	.181	.258	.019	.342	-.093	.586	-.096
harmony	-.643	.053	.334	.316	.115	.560	.036	.089	-.116
ck_helpofothers	-.188	.212	-.150	-.533	-.022	.080	.585	-.181	.134
ck_loyalty	.176	-.098	.032	-.627	-.272	.288	-.479	.095	-.115
egalitarianism	.008	.073	-.083	-.902	-.240	.294	.032	-.053	.003
ck_curiosity	.225	-.114	-.188	.400	-.321	.134	.364	-.330	-.126
ck_independentdecision making	.440	-.233	-.416	.220	-.286	.197	-.137	.265	.241
intellectualautonomy	.496	-.259	-.452	.434	-.435	.243	.127	-.003	.109
ck_excitement	-.099	.658	.078	.185	-.088	-.111	-.220	-.103	.380
ck_pleasure	.074	.629	-.074	.059	-.245	-.293	-.002	-.031	-.373
afectiveautonomy	-.018	.890	.004	.169	-.230	-.279	-.155	-.093	.009
ck_success	.195	-.164	.612	.008	-.110	-.101	.018	.054	.284
ck_risktaking	.426	-.223	.530	-.003	.079	-.261	.088	-.031	-.217
mastery	.441	-.273	.796	.003	-.016	-.258	.076	.013	.032
ck_authority	.427	.027	-.272	.044	.677	.105	-.205	-.167	-.302
ck_humility	.079	.261	-.050	-.104	.374	-.056	.390	.383	.448
hierarchy	.427	.173	-.271	-.020	.818	.062	.039	.069	-.014

Extraction Method: Principal Component Analysis.

Factor analysis is used to portray variance among correlated variables, in terms of unobserved variables. Table 13 shows high correlation for three of Schwartz' value categories: Affective Autonomy, Mastery, and Egalitarianism. While the validity of some WVS questions lost validity, here, it can be seen that study data supports the credibility of aspects of Schwartz' theory.

Appendix B : Survey

Note: The survey as it is reprinted here is not identically formatted to how it was presented to respondents. The respondent version included such best practices as horizontal answer structure, multiple columns to shorten perceived length, and clearer formatting. The survey was also in Mongolian and names were changed to common Mongolian names.

Survey on Mongolian Culture

Start of Block: Opening

Q0 Welcome! Thank you for taking this survey. Your answers will help researchers in their project about Mongolian cultural values. This survey will take about 15 minutes.

Q1 Are you a citizen of Mongolia?

☐ Yes (1)

☐ No (2)

Q2 Gender of Interviewer

☐ Male (1)

☐ Female (2)

☐ I am taking this survey online by myself. (3)

Q3 I consider myself to be well qualified to participate in politics.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q4 I feel that I have a pretty good understanding of the important political issues facing our country.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q5 I feel that I could do as good a job in public office as most other people.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q6 I think that I am better informed about politics and government than most people.

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

End of Block: Internal Efficacy

Start of Block: Social Desirability Bias

Q7 There have been times when I was quite jealous of the good fortune of others

- ☐ True (1)
 - ☐ False (2)
-

Q8 I have never deliberately said something that hurt someone's feelings.

☐ True (1)

☐ False (2)

Q9 I'm always willing to admit it when I make a mistake.

☐ True (1)

☐ False (2)

Q10 I sometimes feel resentful when I don't get my way.

☐ True (1)

☐ False (2)

Q11 I am sometimes irritated by people who ask favors of me.

☐ True (1)

☐ False (2)

End of Block: Social Desirability Bias

Start of Block: Critical Thinking

Q13 Thinking critically is useful for everyday life.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q14 I like to evaluate and make judgements in a rigorous way.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q15 If I have a problem that requires reasoning in a critical way I am prepared to sacrifice time that I would otherwise spend doing other activities.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q16 For me it is important to be good at reasoning.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q17 I am capable of understanding most arguments when I take time to evaluate and make judgements in a rigorous way.

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

End of Block: Critical Thinking

Start of Block: Women

Q18 When a mother works for pay, the children suffer.

- ☐ Strongly agree (1)
 - ☐ Agree (2)
 - ☐ Disagree (3)
 - ☐ Strongly disagree (4)
-

Q19 On the whole, men make better political leaders than women do.

- ☐ Strongly agree (1)
 - ☐ Agree (2)
 - ☐ Disagree (3)
 - ☐ Strongly disagree (4)
-

Q20 A university education is more important for a boy than for a girl.

- ☐ Strongly agree (1)
 - ☐ Agree (2)
 - ☐ Disagree (3)
 - ☐ Strongly disagree (4)
-

Q21 On the whole, men make better business executives than women do.

- ☐ Strongly agree (1)
- ☐ Agree (2)
- ☐ Disagree (3)
- ☐ Strongly disagree (4)

End of Block: Women

Start of Block: Mongol Historical Values

Q22 Here is a list of life qualities. Which ones do you think Chingis Khaan valued? Please choose up to five!

- ☐ Value of Tradition (1)
 - ☐ Proper Behavior (2)
 - ☐ Care for Nature (3)
 - ☐ Peacefulness (4)
 - ☐ Help of others (5)
 - ☐ Loyalty (6)
 - ☐ Curiosity (7)
 - ☐ Independent decision making (8)
 - ☐ Excitement (9)
 - ☐ Pleasure (10)
 - ☐ Success (11)
 - ☐ Risk-taking (12)
 - ☐ Authority (13)
 - ☐ Humility (14)
-

Q23 In the days of Chingis Khaan, men made better political leaders than women.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q24 In the days of Chingis Khaan, education was more important for boys than for girls.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q25 Thinking critically helped Chingis Khaan be a good leader.

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

Q26 Chingis Khaan liked evaluating and making judgements in a rigorous way.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q27 Chingis Khaan sacrificed quite a lot of time and effort in order to improve his way of reasoning.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q28 It was important to Chingis Khaan that he should be good at reasoning.

- ☐ Strongly agree (1)
 - ☐ Somewhat agree (2)
 - ☐ Neither agree nor disagree (3)
 - ☐ Somewhat disagree (4)
 - ☐ Strongly disagree (5)
-

Q29 Chingis Khaan was capable of understanding most arguments when he took time to evaluate and make judgements in a rigorous way.

- ☐ Strongly agree (1)
- ☐ Somewhat agree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat disagree (4)
- ☐ Strongly disagree (5)

End of Block: Mongol Historical Values

Start of Block: Education

Q30 Here is a list of qualities children can be encouraged to learn at *home*. Which, if any, do you consider to be especially important? Please choose up to five!

☐ Independence (1)

☐ Hard Work (2)

☐ Feeling of Responsibility (3)

☐ Imagination (4)

☐ Tolerance and respect for other people (5)

☐ Thrift (saving money and things) (6)

☐ Determination, perseverance (7)

☐ Religious faith (8)

☐ Unselfishness (9)

☐ Obedience (10)

☐ Self-Expression (11)

Q31 Here is a list of qualities children can be encouraged to learn at *school*. Which, if any, do you consider to be especially important? Please choose up to five!

- ☐ Independence (1)
- ☐ Hard Work (2)
- ☐ Feeling of Responsibility (3)
- ☐ Imagination (4)
- ☐ Tolerance and respect for other people (5)
- ☐ Thrift (saving money and things) (6)
- ☐ Determination, perseverance (7)
- ☐ Religious faith (8)
- ☐ Unselfishness (9)
- ☐ Obedience (10)
- ☐ Self-Expression (11)

End of Block: Education

Start of Block: Demographic Information

Q32 What year were you born?

▼ 2005 (1) ... 1920 (86)

Q33 Are you Male or Female?

☐ Male (1)

☐ Female (2)

Q45 Did you go to primary school in the city or country?

☐ Country (1)

☐ City (2)

Q58 What is your highest level of education?

☐ Highschool (1)

☐ Bachelors (2)

☐ Masters (3)

☐ Doctorate (4)

Q59 Economic Class

☐ High (1)

☐ Middle (2)

☐ Low (3)

Q60 Do you have a picture of Chingis Khaan in your house? (In a place of honor)

☐ Yes (1)

☐ No (2)

End of Block: Demographic Information

Start of Block: Cornell Critical Thinking

Q46 There are three possible answers. This is what they mean:

YES - It must be true.

NO - it cannot be true.

MAYBE – it may be true or it may not be true.

You weren't told enough to be certain whether it is "YES" or "NO" EXAMPLE (Be careful!)

E1: Suppose you know that:

Jane is standing near Betsy. Then would this be true?

Betsy is standing near Jane.

YES NO MAYBE The correct answer is C, "MAYBE". Even if Jane is standing near Betsy, Betsy may be sitting. Betsy might be standing near Jane, but she might be sitting near Jane, or something else. You were not told enough to be certain about it, so "MAYBE" is the answer.

Q47 Q1: Suppose you know that: If the hat on the table is blue, then it belongs to John. The hat on the table is blue. Then would this be true? The hat on the table belongs to John.

☐ Yes (1)

☐ No (2)

☐ Maybe (3)

Q48 Q2: Suppose you know that: If Tom lives in the white house, then his last name is Smith.
Tom does not live in the white house. Then would this be true? Tom's last name is not Smith.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q49 Q3: Suppose you know that: John is in the kitchen only if there is food in the kitchen. There
is no food in the kitchen. Then would this be true? John is in the kitchen.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q50 Q4: Suppose you know that: There is an X only if there is a Y. There is not a Y. Then
would this be true? There is an X.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q52 Q5: Suppose you know that: Fred went to a movie last night. If Fred does not go to a movie, he feels bad the next day. Then would this be true? Fred does not feel bad today.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q53 Q6: Suppose you know that: If Bill lives on a farm, then he has a pet dog. Bill has a pet dog. Then would this be true? Bill lives on a farm.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q54 Q7: Suppose you know that: There are black cats only if there are pink cats. There are black cats. Then would this be true? There are pink cats.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q55 Q8: Suppose you know that: If there is an X, then there is a Y. There is a Y. Then would this be true? There is an X.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q56 Q9: Suppose you know that: If mice have five legs, then they run faster than horses. Mice do have five legs. Then would this be true? Mice run faster than horses.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)
-

Q57 Q10: Suppose you know that: If Jane fell off her horse, then she hurt herself badly. Jane hurt herself badly. Then would this be true? Jane fell off her horse.

- ☐ Yes (1)
- ☐ No (2)
- ☐ Maybe (3)

End of Block: Cornell Critical Thinking

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