DEFENDING THE SECURITY OF THE MIND: A MAIL SURVEY OF THOUGHT-REFORM LITERACY IN SOUTH DAKOTA

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By

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DISSERTATION APPROVAL FORM

This dissertation is approved as a credible and independent investigation by a candidate for the Doctor of Philosophy degree and is acceptable for meeting the dissertation requirements for this degree. Acceptance of this dissertation does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department or university.

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"It takes vigilance, stamina, and unending internal fortitude to live

life and use our minds." ~ Margaret Thaler Singer

I dedicate this dissertation to all of the professionals, scholars, advocates, and abuse survivors who have contributed to defending the security and privacy of our minds.

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ABSTRACT

Thought reform – also known as brainwashing or psychological manipulation – is a profound threat to the security of the human mind. This complex form of social engineering is associated with terrorist movements, domestic abuse, destructive cults, and many other forms of totalitarianism present in society (Stein, 2017). Thought reform can result in various harms that range in severity depending on each person's individual experience (Lalich & Tobias, 2006; Stein, 2017). The work of security and privacy professionals inherently concerns psychological manipulation – thought reform often occurs over the internet (Hassan & Shah, 2019), most data breaches occur due to one or more people being maliciously influenced by attackers (Hadnagy, 2018), and the topics of coercion, psychological manipulation, and undue influence have garnered increased attention from privacy and cybersecurity scholars in recent years due to their central role in perpetuating online privacy harms (Citron & Solove, 2022; Susser et al., 2019). The primary tactic for defending people against all forms of psychological exploitation is education and awareness about scams, fraud, and the ways in which attackers exploit human beings (Hadnagy, 2018).

Scholars have identified increasing education and awareness about thought reform as crucial for mitigating the many threats that this type of scam poses to individuals and society (Atack, 2016; Hassan, 2018; Lalich & Tobias, 2006; Langone, 1993; Lifton, 2019; Singer, 2003; Stein, 2017). Despite this recognition, few research studies have discussed or investigated the level of knowledge people have about this security threat. Thus, the purpose of this research study was to address this research gap by doing the foundational work of collecting and analyzing thought-reform literacy data from a geographically-defined

population for the first time. This was achieved by developing the Thought-Reform Literacy Questionnaire for South Dakotan Laypeople (TRLQ-SDL) – a novel survey designed to measure thought-reform knowledge among South Dakotan adults. This was administered as a mail survey in South Dakota and a sample of 147 respondents was collected and analyzed to estimate the status of thought-reform literacy in the entire state population.

This dissertation study investigated the primary research question "What is the degree of thought-reform literacy among adult South Dakotan laypeople?" Six additional research questions investigated possible correlations between literacy scores on the TRLQ-SDL and five demographic predictor variables as well as belief in self-vulnerability to thought reform. The overall weighted mean composite thought-reform literacy score for the full sample was 37.03, or 78.79% correct (out of the maximum score of 47), which rose to 38.89 (82.74% correct) with outlier scores removed. A hierarchical multiple regression analysis was conducted on the five demographic predictor variables and no statistically significant correlation was found between any demographic variable and the composite literacy scores.

A point-biserial correlation analysis found a low to moderate positive correlation between those who were humble about their vulnerability to thought reform and composite literacy scores. A separate regression analysis was conducted to predict the score difference between those who were humble and those who believed they were immune to thought reform; the model predicted that those who were humble scored an average of 1.65 points higher after outliers were removed from the sample. This result was statistically significant. This finding resulted in one of the six null hypotheses tested in this study to be rejected in favor of the alternative hypothesis that there is a positive correlation between respondent humility and knowledge about thought reform as measured by the TRLQ-SDL.

DECLARATION

I hereby certify that this dissertation constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

I declare that the dissertation describes original work that has not previously been presented for the award of any other degree of any institution.

Signed,

Dustin Rozario Steinhagen

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CHAPTER 1

INTRODUCTION

Background and Theory

Thought reform, more commonly known as "brainwashing" or "psychological manipulation," is a complex form of social engineering that can disrupt a person's identity and autonomy. The phenomenon poses one of the most profound threats to the security of the human mind and society. It is a sophisticated variety of scam where a mental predator deceives a target into giving up their autonomy and involves the unethical modification of the target's identity (Hassan, 2018; Singer, 2003). Since online privacy harms often have a component of psychological manipulation (Citron & Solove, 2022; Susser et al., 2019), and because cybersecurity experts are the stakeholder group tasked with defending against the various psychological attack vectors that occur both online and offline (Hadnagy, 2018), security and privacy experts have a duty to arm people with the proper knowledge and awareness about these threats. Thus, the issue of educating the public about thought reform scams is inherently a cybersecurity and privacy issue.

Various academic models exist for explaining thought reform, including Lifton's eight criteria for thought reform (Lifton, 1989), Singer's six conditions for thought reform (Singer, 2003), Hassan's BITE model of mind control (Hassan, 2018), and Schein's three-stage process for coercive persuasion (Schein et al., 1961). Many authors have proposed terms for the thought-reform phenomenon over the decades, including Mao Zedong's "thought struggle" from 1929 (cited in Singer, 2003, p. 53); "brainwashing" (Hunter, 1951); "DDD

syndrome" (Farber et al., 1957); "thought reform" (Lifton, 1989, originally published in 1961); "coercive persuasion" (Schein et al., 1961); "coordinated programs of coercive influence and behavioral control" (Ofshe & Singer, 1986); "mind control" (Hassan, 2018, originally published 1988); "systematic manipulation of psychological and social influence" (Singer & Addis, 1992); "exploitative persuasion" (Singer & Addis, 1992); "bounded choice" (Lalich, 2004); "coercive control" (Stark, 2007); and "gaslighting" (Ni, 2017; Sarkis, 2017). Thought reform and brainwashing are formally recognized by mental health professionals, as they are mentioned in the DSM-5 under Other Specified Dissociative Disorder 300.15 (F44.89) (American Psychiatric Association, 2013, p. 306). More recently, the Social Influence Model (SIM) has been developed as a tool for use in courtrooms to present expert testimony on thought reform in cases involving undue influence (Scheflin, 2015).

Thought reform occurs in many contexts, both within the United States and abroad. Examples of situations involving thought reform include terrorism, White Supremacy, human trafficking, destructive cults, and totalitarian regimes such as Nazi Germany in the past and that which currently exists in North Korea (Hassan & Shah, 2019). An estimated 25 million people are victims of human trafficking around the world and human trafficking is estimated to be a $150 billion industry (Polaris & National Domestic Workers Alliance, 2019). Although difficult to count with precision, victims of cult mind control are believed to be in the millions worldwide (Hassan & Shah, 2019). Another expert suggests that the number of those who have "given their allegiance to fanatical groups" is in the hundreds of millions globally (Atack, 2016, p. 13). A conservative estimate is that over 800 million people around the world (approximately 10% of the world's population) are affected by some type of thought reform (Open Minds Foundation, n.d.-c).

Although general awareness and adoption of defensive measures against thought reform have been increasing, there are still people who are unaware of the threat, including many mental health professionals who play an important professional role in helping those victimized (Hassan, 2018). Hassan has expressed concern that, despite having conducted mind control research on its citizens in the past, the United States federal government has never formally recognized the existence or threat of thought reform and does not actively inform its citizens about how they can protect themselves against it, despite the national security risks an uninformed populace poses. Thus, two major stakeholder groups that are in a position to defend people against thought reform are not currently addressing the problem at full capacity.

The potential dangers of thought reform are many, both at the level of the individual and that of society. Individuals subjected to thought reform may experience a disruption in their authentic identity, may suffer from psychological, emotional, sexual, financial, and physical abuse, and may experience a loss of their autonomy and privacy without prior informed consent (Hassan, 2018). Destructive cults are known to tear apart families, exploit their members, abuse children, propagate violence, steal property and money, engage in conspiracies, threaten ex-members and researchers as well as introduce various forms of authoritarianism in democracies (Singer, 2003). The 9/11 terrorist attacks on the World Trade Center and the Pentagon are illustrative of the types of violence and destruction that unmitigated thought-reform threats can precipitate (Singer, 2003). One prominent scholar of thought reform has expressed concern that aspects of thought reform mixed with nuclear weapons or climate change could cause great devastation to human civilization or even result in human extinction (Lifton, 2019).

Thought-reform education and awareness efforts are widely considered a defensive measure among thought-reform and cult experts (Atack, 2016; Hassan, 2018; Lalich & Tobias, 2006; Langone, 1993; Lifton, 2019; Singer, 2003; Stein, 2017). Understanding the nature of thought reform allows individuals to better identify the threat if they or a loved one are ever targeted, increasing their chances of taking corrective actions to protect themselves and others (Hassan, 2018). This insight is based on the more general idea in the research field of social psychology that those who know how influence and persuasion work will be better equipped to resist influence and persuasion attempts (Pratkanis & Aronson, 2001). Efforts to educate the public about the threat of thought reform is an extension of the cybersecurity professionals' duty to warn the public about the various types of scams and fraud that attackers engage in, and thus research into the public's knowledge about psychological manipulation in general may hold implications for the broader social engineering education field. Several thought-reform education and awareness initiatives exist, but little research has been conducted in this area, and there are no formal criteria for assessing thought-reform literacy in any population.

Problem Statement

Despite the recognition among scholars of thought reform that education and awareness is an effective defensive control for combating psychological manipulation, there was a general lack of thought-reform literacy data in any population. Few previous research studies had attempted to establish or administer an instrument to measure the degree of knowledge about thought reform in a population. Furthermore, prior to this study, there were no large-scale thought-reform literacy studies conducted in the United States, or even

internationally — previous studies in the cultic studies literature were limited to student populations at specific universities or schools rather than broad geographic regions. Thus, this study represented the first large-scale thought-reform literacy survey ever conducted and addressed a major gap in the literature on thought reform.

Purpose Statement

The purpose of this study was to serve as a foundational attempt to measure the degree of thought-reform literacy in a large-scale population, starting with adult South Dakotan laypersons. This was achieved by administering a novel thought-reform literacy questionnaire using a mail survey design. The data analysis investigated the relation between respondents' demographic characteristics – as well as their humility towards their own vulnerability to thought reform – and their degree of thought-reform literacy.

Significance of the Study

This study has practical benefits for various stakeholders. This research provides a foundational, general curriculum that can serve as the basis for future curricula developed in this research field. For instance, this curriculum can serve as a foundation for standardized introductory thought-reform curricula targeting adult laypersons in the United States. This study can also serve as a starting point for research into thought-reform literacy in other populations, both within the United States and internationally.

Gathering thought-reform literacy data provides mind defense professionals with insights into what people know about this serious issue – these insights may eventually help experts strategically allocate educational resources to mitigate psychological security risks

more effectively. By measuring knowledge about thought reform and cults, quantitative data on South Dakotans' knowledge about thought reform is now available for the first time to mind defense researchers and professionals – this data can be used to inform the development of educational materials for protecting people against psychological abuse and mitigating risk to societies and families related to human trafficking, terrorism, and the many other social contexts involving thought reform.

The collection of thought-reform literacy data through multiple studies of this type may help in assessing whether existing thought-reform education campaigns are effective in protecting their target populations against psychological exploitation. Regularly measuring and improving thought-reform literacy can become a major defensive control for protecting the security of peoples' minds and will be necessary for addressing the various human exploitation crises related to thought reform such as abusive relationships, human trafficking, terrorism, political and religious cultism, totalitarian regimes, child abuse, and other harms.

When numerous literacy studies of this type have been conducted in different populations, comparative statistics will become available. This will enable researchers to answer currently unanswerable research questions such as how thought-reform literacy compares between states, provinces, and countries, or whether older adults tend to be more knowledgeable than younger adults across populations. Protecting the security of the human mind by improving awareness about thought reform benefits the entire human community, since anyone can be adversely affected by thought reform.

Research Questions and Hypotheses

This study investigated the overarching research question "What is the degree of thought-reform literacy among adult South Dakotan laypeople?" – this was labeled "RQ0" since it was the primary research objective. The average composite literacy score on the questionnaire was used to estimate general literacy for the population. In addition to RQ0, several other research questions were also investigated:

- RQ1: What is the relation between age and the degree of composite respondent thought-reform literacy?

- RQ2: What is the relation between educational attainment and the degree of composite respondent thought-reform literacy?

- RQ3: What is the relation between subjective social status and the degree of composite respondent thought-reform literacy?

- RQ4: What is the relation between race and ethnicity and the degree of composite respondent thought-reform literacy?

- RQ5: What is the relation between sex and the degree of composite respondent thought-reform literacy?

- RQ6: What is the relation between belief in self-vulnerability to thought reform and the degree of composite respondent thought-reform literacy?

The research hypotheses included six null hypotheses which corresponded to research questions RQ1 through RQ6:

- NH1: Respondent age is not correlated with composite thought-reform literacy.

- NH2: Respondent educational attainment is not correlated with composite thought-reform literacy.

- NH3: Respondent subjective social status is not correlated with composite thought-reform literacy.

- NH4: Respondent racial and ethnic identity is not correlated with composite thought-reform literacy.

- NH5: Respondent sex is not correlated with composite thought-reform literacy.

- NH6: Respondent belief in self-vulnerability to thought reform is not correlated with composite thought-reform literacy.

These research questions and hypotheses are discussed in more detail in Chapter 3.

Methodology

This study utilized a quantitative survey design with a novel literacy questionnaire intended to measure thought-reform literacy. The population consisted of all adult residents (those aged 18 or above) in the state of South Dakota. The study leveraged a mail survey design due to its appropriateness for targeting this population. The survey instrument was developed in consultation with thought-reform experts to ensure the validity of the knowledge that was tested. Detailed information about the methodology can be found in Chapter 3.

Literature Review Plan

The literature review consists of four sections. These sections include the following: a general overview of the exploitation of the human mind and behavior; a review of thought-reform scholarship; defense against thought reform; and thought-reform education and awareness as a defensive control, including a discussion about thought-reform literacy. The literature review provided answers for the literacy questions posed in the survey instrument

and provides a foundational knowledge base for other researchers interested in defense against thought reform.

Definition of Terms Used in this Study

Abuse — "when individuals are treated as objects to be manipulated rather than as people whose mind, autonomy, identity, and dignity are respected" (International Cultic Studies Association, n.d.-b). There are various forms of abuse, including physical, sexual, psychological, emotional, financial, spiritual, and social abuse.

Brainwashing — A term used as a synonym for "thought reform" in this study unless context indicates otherwise. This term is not generally preferred by thought-reform and cult experts despite it being the most recognized term among the lay public, as it often carries with it misleading preconceptions about thought reform (Freedom of Mind Resource Center, 2020a, 2020b). Despite its downsides, this term is used in this study due to its popularity among laypersons and because certain thought-reform experts have used it such as Margaret Singer (2003) and Alexandra Stein (2017).

Coercion — "the tangible use of undue influence or force on another person" (International Cultic Studies Association, n.d.-b). See the definition for "undue influence."

Coercive Control — "Coercive control: manipulating an individual to act against their best interests using violence, threats, intimidation or psychological techniques" (Open Minds Foundation, n.d.-e, p. 2). A phrase used as a synonym for "thought reform" in this study unless context indicates otherwise.

Coercive Persuasion — A phrase used as a synonym for "thought reform" in this study unless context indicates otherwise.

Cult (totalist type) — "A group or movement exhibiting a great or excessive devotion or dedication to some person, idea, or thing and employing unethically manipulative techniques of persuasion and control (e.g., isolation from former friends and family, debilitation, use of special methods to heighten suggestibility and subservience, powerful group pressures, information management suspension of individuality or critical judgment, promotion of total dependency on the group and fear of leaving it, etc.), designed to advance the goals of the group's leaders, to the actual or possible detriment of members, their families, or the community" (West & Langone, 1986). The use of the term "cult" is wrought with ambiguity (Langone, 2015). Despite its ambiguity, the term is used in this study because much of the research and popular discussion on thought reform involves research into the behavior of cultic groups — thus, avoiding the term is impossible. In this study, unless context indicates otherwise, uses of the term "cult" and related terms such as "cults" or "cultic" refer only to totalist and destructive cults generally and do not refer to any specific individual, relationship, group, organization, nation, or online community.

Human Exploitation — Taking advantage of human vulnerabilities (e.g., exploiting a person's cognitive biases during cult recruitment).

Manipulation — "maneuvering within someone's autonomy and trying to increase reliance on the manipulator" (International Cultic Studies Association, n.d.-b).

Mind Control — A phrase used as a synonym for "thought reform" in this study unless context indicates otherwise. Similar to the term "brainwashing," "mind control" has unscientific and misleading connotations, although it is popularly used as a synonym for thought reform (Lalich & Tobias, 2006, p. 37).

Psychological Exploitation — A phrase denoting the psychological and behavioral aspects of human exploitation. See "Human Exploitation."

Psychological Manipulation – A phrase used as a synonym for "thought reform" in this study unless context indicates otherwise.

Psychological Security — A phrase denoting the psychological and behavioral aspects of the security discipline (e.g., securing the mind against scams, thought reform, and other threats), as opposed to physical security or security of digital computers and information.

Psychologically Manipulative Group (PMG) — A phrase used as a synonym for "cult." This phrase has been proposed as a less controversial descriptor than "cult" for denoting abusive groups (Almendros et al., 2011).

Thought Reform — "… thought reform is a concerted effort to change a person's way of looking at the world, which will change his or her behavior. It is distinguished from other forms of social learning by the conditions under which it is conducted and by the techniques of environmental and interpersonal manipulation that are meant to suppress certain behavior and to elicit and train other behavior" (Singer, 2003, p. 62).

Thought-Reform Literacy — The condition or quality of being knowledgeable about thought reform. See definition for "Thought Reform."

Undue Influence — A phrase used as a synonym for "thought reform" in this study unless context indicates otherwise. Undue influence is an area of the law that thought-reform experts have proposed as a legal avenue for combating thought-reform abuses (Hassan, 2020a; Scheflin, 2015).

Assumptions, Delimitations, and Limitations of the Study

All research studies are imperfect due to the underlying assumptions, delimitations, and limitations associated with them (Bryant, 2004). So that the potential shortcomings of this research are clear, this section outlines these assumptions, delimitations, and limitations. The research findings in this study depend upon the following assumptions:

- Survey respondents did not misrepresent information when responding to the survey.

- Survey respondents did not misinterpret questions on the survey instrument.

- Survey respondents answered the literacy questionnaire alone.

- The survey respondents who did not respond to the mail survey did not differ in a statistically significant way than those who did respond.

- The members of the population that were in the sampling frame (South Dakotan adults with residential addresses reachable by the United States Postal Service) did not differ in a statistically significant way to those who were not in the sampling frame (e.g., from those who were homeless or were in prison).

- Threat actors did not compromise the integrity of the mail survey or the collected data at any stage of the research process (e.g., the survey respondents were not intimidated by abusive groups to not respond).

Delimitations are the factors that limit generalizing the research findings to other populations or contexts (Bryant, 2004). The following are the delimitations of this study:

- This study's population was the adult laypeople of South Dakota, and thus the results do not necessarily generalize to other parts of the United States, other parts of the world, to those under the age of 18 in South Dakota, or to the

population of South Dakotans who had expert-level knowledge of thought reform.

- As expert opinion on appropriate thought-reform literacy standards for laypersons may shift in the coming years, the passage of time could diminish the relevancy of the results discussed in this study.

- Thought-reform facts can change with the passage of time, which could make certain questions posed in the survey questionnaire outdated after the publication of this study.

Limitations are the restrictions inherent to the chosen research methodology (Bryant, 2004). The following are the limitations of this study:

- As this was a mail survey with no audio or internet component, this study may have excluded individuals living in households where there was no individual capable of reading.

- This study only reached members of the target population who had a residential physical address and were present at that physical address for the duration of the study, and thus might have excluded those who were traveling, hospitalized, homeless, or absent from the sampled addresses for any other reason.

- This study did not reach members of the target population who lived in group homes, such as religious orders, prisons, nursing homes, and psychiatric hospitals.

Organization of the Remainder of the Study

The remainder of this dissertation is organized as follows: Chapter 2 provides a literature review of psychosocial threats to the human mind, thought reform in general, thought-reform defense, thought-reform education efforts and the concept of thought-reform literacy. Chapter 3 discusses the research methodology and survey design. Chapter 4 presents the research results and Chapter 5 discusses them. Chapter 6 concludes this study and briefly discusses future work in the thought-reform literacy research field.

CHAPTER 2

LITERATURE REVIEW

Overview of the Chapter

This literature review addresses the following topics: the general topic of human exploitation by social and psychological means; thought reform in general; defense against thought reform; education and awareness as a defense against thought reform, including a discussion about thought-reform literacy. These four sections are summarized in Table 1.

Table 1

The four literature review sections and their summaries

Section	Section Title	Section Description
1	Overview of threats to the human mind and brain	Provides an overview of threats to the human brain, mind, and behavior, focusing on the psychosocial aspects of human exploitation
2	Overview of thought reform	Provides an overview of thought reform, including seminal academic models, its history, the social contexts in which it occurs, its impact, its prevalence, and current events related to the threat
3	Defense against thought reform	Discusses societal and individual countermeasures for addressing the threat of thought reform as well as known vulnerability factors
4	Thought-reform education, awareness, and literacy	Discusses past and current thought-reform education and awareness efforts and the concept of thought-reform literacy

Section 1: Overview of Psychosocial Threats to the Human Mind and Brain

Acts of psychosocial exploitation (i.e., those acts involving human beings leveraging vulnerabilities in peoples' minds) come in many varieties, leading to diverse threats that must be addressed to protect human beings. These threats commonly occur at the personal, group,

organizational, and societal levels in various contexts and often overlap with each other. Table

2 outlines these threats and provides real-world examples of how they have harmed, or could

harm, human beings.

Table 2

The different types of psychosocial threats to human beings

Threat	Definition	Real-World Examples and Discussion
Breaches of Neurosecurity and Neuroprivacy	Compromising the security or privacy of the human brain (Denning et al., 2009; New York City Bar Association, 2005)	Researchers have demonstrated that it is possible for brain hackers to extract private information directly from a person's brain through a brain-computer interface, including recognized faces, bank PIN numbers, bank name, geolocation and birthdays (Martinovic et al., 2012). This type of attack can even be carried out subliminally, without the conscious awareness of the target, with initial findings suggesting that it is at least possible to extract recognized faces from the brain in a covert manner (Frank et al., 2017).
Exploiting Cognitive Biases	Taking advantage of the mental shortcuts (heuristics) human beings are prone to (Cialdini, 2009; Kahneman, 2011; Pratkanis & Aronson, 2001; Ramos, 2019)	Whistleblower and former Cambridge Analytica employee Christopher Wylie states in his memoir that human beings suffer from thousands of cognitive biases and that Cambridge Analytica thoroughly researched and then exploited some of these cognitive vulnerabilities in order to foment racist attitudes and paranoia in a targeted population of voters in the United States leading up to the 2016 presidential election (Wylie, 2019). There is growing recognition among those in the cybersecurity and privacy fields that cognitive biases are a security and privacy issue (Anderson, 2020; Cronk, 2018; Schroeder, 2019; Susser et al., 2019).
Social Engineering Scams and Fraud	"*any* act that influences a person to take an action that may or may not be in his or her best interests" (Hadnagy, 2018, p. 7)	Although social engineering can be beneficial or neutral depending on context, discussions of its harms often center on its use to scam and defraud people and organizations (Hadnagy, 2018). A particularly devastating type of ploy is the romance scam, where attackers pose as suitors on online dating services, tricking people into falling in love with them, and then leveraging their affectionate emotions to ask for money under false pretenses, sometimes succeeding at draining the person's entire bank account (Abagnale, 2019). According to a Better Business Bureau report, romance scam victims from the United States and Canada lost a combined $1 billion between 2015 and 2018 (2018). One support group reported that *all* romance scam victims contemplate committing suicide after discovering that the love was a ruse.
Dark Patterns	Manipulative design patterns deployed by organizations to trick consumers into giving up their private information (Cronk, 2018)	One report lays out the manipulative tactics that were utilized by the tech giants Google, Facebook and Microsoft leading up to the enforcement deadline of the European Union's General Data Protection Regulation (Norwegian Consumer Council, 2018). Manipulative tactics included making privacy settings difficult to navigate, color-coding the privacy-protective options to make them less appealing, Facebook showing the user a fake notification to tempt them to speed through reviewing their privacy options, and threatening users with undesirable functionality or even account deletion (in the case of Facebook) if they did not agree to the updated user terms.
Misinformation and Disinformation	Disinformation is deliberately falsified or manipulated information, whereas misinformation is false information that is believed to be true by the person spreading it (Wardle & Derakhshan, 2018)	Videos of House Speaker Nancy Pelosi were edited to make it appear as though she was slurring her words by slowing down the clip (Washington Post, 2019). One study found that of 69 of the most viewed YouTube videos covering the coronavirus pandemic, 27.5% (19) contained "non-factual" information (Li et al., 2020).
Pseudoscience	"A theory, methodology, or practice that is considered to be without scientific foundation" ("pseudoscience," 2016)	In a letter to the editor of the journal Alcohol and Alcoholism, professionals in Iran voiced their concerns about false medical advice spreading on social media about using alcohol as a

Threat	Definition	Real-World Examples and Discussion
		coronavirus treatment. Approximately 500 Iranians died from alcohol poisoning and another 60 were left completely blind (Delirrad & Mohammadi, 2020).
		The rejection of scientific thinking and belief systems based on fundamental misunderstandings of the world are problems related to scientific literacy (Sagan, 1996).
Conspiracy Theories	Conspiracy theories are "sets of often erroneous beliefs that people use to explain malevolent and/ or unlawful acts that are perceived to be directed by and in favor of a small and powerful group that works in secret against a larger group of unwitting victims" (Reid & Ried, 2009)	QAnon is a conspiracy theory internet cult that believes that "Donald Trump is saving the world from a Satanic cult of pedophiles and cannibals" (Langone, 2021b). Langone notes that "some evidence points toward actual or potential violence among QAnon supporters."
Propaganda	"Mass "suggestion" or "influence" through the manipulation of symbols and the psychology of the individual" (Pratkanis & Aronson, 2001, p. 11)	Propaganda is utilized widely on social media to advance conspiracy theories, wage war and accomplish other goals (Singer & Brooking, 2018). The apocalyptic terrorist cult ISIS has made incredibly sophisticated use of propaganda in their warfare and recruitment efforts, despite being "jihadists from a war-torn corner of the world" (2018, p. 150).
Psychological Warfare	"Psychological warfare seeks to achieve military aims by acting upon the minds of the enemy, often by manipulating information to mislead or demoralizing the enemy through non-lethal means" (Mcfate, 2005)	A form of psychological warfare known as "fourth-generation warfare," also referred to as "4GW," is "a military approach that [seeks] to collapse enemies from within by disrupting their mental, emotional, and moral foundations" (Hassan, 2019, p. 142). Cambridge Analytica whistleblower Christopher Wylie describes a similar concept in his memoir which he dubs "perspecticide," where the goal is the "deconstruction and manipulation of popular perception" with the ultimate goal of assaulting the identity of the target (2019, p. 48).
Thought Reform	Also referred to by myriad other aliases and near-synonyms such as "mind control" or "brainwashing," this paradigm of influence is the most extreme form of psychological exploitation. It involves assaulting a person's identity, limiting their autonomy, and entrapping them in a totalistic system of control under the command of a psychopathic cult leader (Stein, 2017).	This form of influence is closely associated with much of the suffering in human society, including the persistence of modern day slavery, attacks on civil liberties, violence, families being torn apart, and the abuse of children (Singer, 2003). Contrary to popular intuition, this threat is still a major problem around the world (Hassan, 2018), with thousands of destructive cults afflicting millions of people in the United States alone (Hassan, 2019).

Overlap Between Thought Reform and Other Types of Psychosocial Exploitation

Thought reform has various ties to the other forms of psychological attack shown in

Table 2. For instance, destructive cults spread disinformation and propaganda throughout

society in an effort to keep the public vulnerable, including manipulating pages on Wikipedia

(Hassan, 2018). The brain's use of heuristics contributes to people being vulnerable to mind

control (Hassan & Shah, 2019). Sometimes conspiracy theories are a defining characteristic of

a cult, as with Lyndon LaRouche's movement (Hassan, 2019). The "sacred science," one of

Lifton's eight criteria of thought reform (Lifton, 1989), involves embracing fallacious

scientific claims, and is thus a form of pseudoscience. Thought reform can also be

characterized as a type of scam or fraud — Singer described thought reform as a type of "psychological con game" (Singer, 2003, p. 54). Hassan has likened the techniques used by cult recruiters to those of con artists, emphasizing the key difference: "However, they [cult recruiters] want something more valuable than your money. They want your mind!" (Hassan, 2018, p. 100).

Thought reform can also be thought of as a privacy issue, as it is an extreme instance of decisional interference — socially caused autonomy loss — which is one of the 16 privacy harms described in Solove's taxonomy of privacy harms (2006). A more recent paper on privacy harms mentions "undue influence" and "manipulation" as autonomy-related privacy harms (Citron & Solove, 2022). Even the emerging issues of neurosecurity and neuroprivacy have been tied back to thought reform — researchers have pointed out that subliminal probing of the brain for recognized faces could be utilized by authoritarian leaders to furtively identify members of underground resistance movements (Frank et al., 2017) and "brainwashing" has been identified as a security threat to the human mind in connection with the use of advanced neuroprosthetics (Gladden, 2017, p. 115).

Cybersecurity Includes Defense of the Human Brain and Mind

The human brain is a computer and the mind is computation (Edelman, 2008). Utilizing hundreds of references, Edelman explains that computation is the unifying principle behind cognitive insights from the fields of psychology, neuroscience, and philosophy of mind. Explanatory themes covered in Edelman's book include the brain utilizing hierarchical abstraction to solve problems, literal examples of the brain implementing computation in its architecture, the brain maintaining statistics about the world, and the mind being a virtual machine. A computational view of psychology has also been acknowledged in the thought-

reform field — a cult expert mentioned that the brain "has been described as an incredibly complex and sophisticated biocomputer, one that is designed to learn survival patterns" (Hassan, 2019, p. 89). The insight that computation is central to neuroscience and psychology leads to a profound connection to the cybersecurity field — if the brain is a computer and the mind is a virtual machine, then humans can be exploited because they are computers. Thus, cybersecurity and privacy professionals are responsible for the neurological and psychological defense of human beings.

Although human exploitation often occurs online (Hassan, 2018) and neurotechnology poses many novel and significant risks to humans (Ienca, 2015), the security and privacy professionals' duty to protect brains and minds extends beyond the context of information technology because brain and mind exploitation routinely happen even in the absence of digital technology. Organizations contract or employ security experts who are familiar with social engineering to defend against psychological attacks that occur both online and offline (Hadnagy, 2018), suggesting defense against malicious influence is not solely the domain of social psychologists, but is a central concern of the security field.

Although defense against psychological attacks has historically been a focus within the security field, discussions about malicious social engineering often center on changes to a person's behavior (as in Hadnagy, 2018). However, behavior is just one component of a person's mind that can be exploited. Thought-reform experts have discussed how victims of psychological attacks can have nearly any aspect of their mind altered by a mental predator, including their behavior, beliefs, attitudes, perceptions, thoughts, emotions, use of language, memories, states of consciousness, personality, and identity (Hassan, 2018; Singer, 2003). Since the human mind and brain are within the domain of cybersecurity, security and privacy

professionals have a responsibility to holistically defend the human mind, rather than solely focus on modified behavior. One case study that highlights this need for a holistic view is Cambridge Analytica, a psychological warfare firm that succeeded in manipulating the belief systems and political attitudes of the United States electorate, threatening the functioning of democracy (Wylie, 2019). Cambridge Analytica was more profound than just modified behavior, as voters were targeted with political messaging that was unique to their psychometric traits – the resulting exploitation changed their understanding of reality, not just how they voted in the election, indicating a deeper level of compromise of the human being than a temporary change of behavior.

As thought reform is a complex subject, the next section of this literature review is dedicated to introducing what it is, how it works, where it happens, its prevalence, what happens to humans who undergo it, and its impact on history.

Section 2: Overview of Thought Reform

This section of the literature review covers thought reform in general and is the longest owing to the decades-long history of thought reform and cult scholarship, the breadth of social contexts that are relevant to this study, and the complex and controversial nature of the subject matter. Thus, this section is broken down into six main sections consisting of many constituent subsections, with each section covering a major theme covered in the seminal literature on thought reform. These six main themes include the following: foundational concepts and definitions for understanding the study of thought reform and cults; the history of thought reform and relevant current events; academic models for explaining

thought reform; social contexts involving thought reform; the prevalence of thought reform; and the impact of thought reform.

Important Concepts Related to the Study of Thought Reform

This section discusses foundational ideas and topics related to the study of thought reform. The following topics are addressed in the following five subsections: academic definitions for the phrases "cult" and "thought reform"; foundational concepts found in the academic literature on thought reform and cults; types of brainwashing and brain change; an overview of why people end up in thought-reform environments, why they stay, and how they get out; and the nature of the cult leader. The foundational concepts in this section build upon other foundational ideas introduced in the first section of this literature review, such as thought reform being a form of psychological exploitation (i.e., social engineering), how the existence of cognitive biases make the human mind vulnerable to attack, and how thought reform is a security and privacy issue because the brain is a vulnerable computer.

Academic Definitions for "Cult" and "Thought Reform"

The term "cult" is wrought with ambiguity — the term is often used inappropriately and is popularly used to refer to one or more contexts in a "conceptual family," such as religious fanaticism, terrorism, covert hypnotic inductions, unorthodox social groups, and any group or movement someone disapproves of, among others (Langone, 2015). Langone notes that, typically, those who use the label "cult" are referring to one or more of the following social situations: (1) People are being treated as objects for the benefit of a group's leader(s); (2) The group believes the ends justify the means, and the means are considered unethical by most people; or (3) Participants or non-participants are harmed by the group. The term "cult" is often used by professionals and researchers to denote a "continuum of manipulation and

abusiveness," and thus can refer to a wide variety of social contexts (International Cultic Studies Association, n.d.-a).

Complicating matters further, the cultic studies field has embraced a plethora of alternative terms for similar phenomena, including "abusive churches," "authoritarian groups," "brainwashing," "coercion," "coercive control," "coercive isolation," "coercive persuasion," "emotional abuse," "extremism," "gaslighting," "grooming," "mind control," "New Religious Movements," "predatory alienation," "psychological abuse," "psychological manipulation," "psychologically manipulative groups," "purposeful isolation," "radicalization," "sects," "sexual exploitation," "social movements," "spiritual abuse," "thought reform," "totalistic groups," and "undue influence," among others (Almendros et al., 2011; Cronin et al., 2017; International Cultic Studies Association, 2018; Langone, 2015; Ni, 2017). Some terminology may be offensive to cult survivors, such as the notion that one joins a cult — being deceptively recruited more accurately reflects reality — although there does not seem to be a consensus for non-offensive descriptive labels among survivors (Goldberg et al., 2017).

Various formal definitions for "cult" have been proposed by cult scholars and professionals, differing considerably from the definitions found in dictionaries. Themes reflected in dictionary definitions of "cult" tend to be overly broad and benign, including religious worship, dogmatic or unscientific methods for curing diseases, unorthodox or spurious religions, a system of beliefs or rituals, devotion (or the group or object of such devotion), a group sharing esoteric interests, or an extremist or false religious sect (Houghton Mifflin Harcourt, n.d.-a; Merriam-Webster, n.d.-a; West & Langone, 1986). Contrary to what might be inferred by these dictionary definitions of cults, cult professionals are primarily

concerned with harmful totalitarian cults (West & Langone, 1986). To avoid controversies around religious freedom — and because not all cults are religious — it is important for professionals who scrutinize cults to focus on the presence of destructive behavior rather than solely focusing on the specifics of a group's belief system (Hassan, 2018).

Cult scholars and professionals have proposed many definitions for the word "cult," with all of their definitions converging on a shared set of characteristics. Table 3 contains six definitions of "cult" offered by cult experts, color-coded with the following three common themes among them: zealotry, excessive devotion, and leadership by a charismatic guru or gurus (yellow); the use of thought reform and the promotion of dependency on the guru(s) and their belief system (green); and exploitation of group members and the harm (or potential for harm) of one or more constituent groups (blue). All three themes are prevalent across these six definitions, with thought reform (or one of its synonyms) being the only theme represented in all of them, suggesting that thought reform is central to the nature of cults. The definition for "cult" utilized in this study is the one in the first row, although the differences between these definitions are minor and thus may be used interchangeably.

Table 3

Formal definitions of "cult" with common themes highlighted by color

Citation	Cult Definition Quotation
(West & Langone, 1986)	Cult (totalist type): a group or movement exhibiting a great or excessive devotion or dedication to some person, idea, or thing and employing unethically manipulative techniques of persuasion and control (e.g., isolation from former friends and family, debilitation, use of special methods to heighten suggestibility and subservience, powerful group pressures, information management suspension of individuality or critical judgment, promotion of total dependency on the group and fear of leaving it, etc.), designed to advance the goals of the group's leaders, to the actual or possible detriment of members, their families, or the community.
	Totalist cults are likely to exhibit three elements to varying degrees: (1) excessively zealous, unquestioning commitment to the identity and leadership of the group by the members, (2) exploitative manipulation of members, and (3) harm or the danger of harm. Totalist cults may be distinguished from "new religious movements," "new political movements," and "innovative psychotherapies" (terms that can be used to refer to unorthodox but relatively benign groups), if not by their professed beliefs then certainly by their actual practices.
(Langone, 1993, p. 5)	A cult is a group or movement that, to a significant degree, (a) exhibits great or excessive devotion or dedication to some person, idea, or thing, (b) uses a thought-reform program to

Citation	Cult Definition Quotation
(Singer, 2003, p. 7)	persuade, control, and socialize members (i.e., to integrate them into the group's unique pattern of relationships, beliefs, values, and practices), (c) systematically induces states of psychological dependency in members, (d) exploits members to advance the leadership's goals, and (e) causes psychological harm to members, their families, and the community. I prefer to use the phrase "cultic relationships" to signify more precisely the processes and interactions that go on in a cult. A cultic relationship is one in which a person intentionally induces others to become totally or nearly totally dependent on him or her for almost all major life decisions, and inculcates in these followers a belief that he or she has some special talent, gift, or knowledge.
(Stein, 2017, p. 12)	For our purposes, the label cult refers to three factors: 1. The origin of the group and role of the leader 2. The power structure, or relationship between the leader (or leaders) and the followers 3. The use of a coordinated program of persuasion (which is called thought reform, or, more commonly, brainwashing) … a cult is a group of people led and generally exploited by a charismatic and authoritarian leader, who hold an extreme (totalist) set of views. A cult employs brainwashing in its efforts to keep members under its control. I use this word "cult" interchangeably with the terms "totalist group" and "totalist system."
(Hassan, 2018, p. 82)	Briefly, a destructive cult is a group that violates a member's rights and damages them through the abusive techniques of unethical mind control.
(Lifton, 2019, pp. 4-5)	I have insisted upon retaining the word "cult" for groups that meet three criteria: first, a shift in worship from broad spiritual ideas to the person of a charismatic guru; second, the active pursuit of a thought reform-like process that frequently stresses some kind of merger with the guru; and third, extensive exploitation from above (by the guru and leading disciples)-whether economic, sexual, or psychological-of the idealism of ordinary followers from below.

Like the definition of "cult," the definitions proposed for "thought reform" are similar to each other. The thought-reform definitions discussed below were chosen because they briefly explain thought reform in general and focus on its goals and outcomes — the academic models used to identify and explain thought reform are considered later in this literature review. Likewise, foundational concepts needed to make sense of thought reform in general are covered in the next section.

Table 4

Formal definitions of "thought reform" (or one of its synonyms) with the common theme of psychological change highlighted

Citation	Thought-Reform Definition Quotation
(Lifton, 1989, pp. 4-5)	"For despite the vicissitudes of brainwashing, the process which gave rise to the name is very much a reality: the official Chinese Communist program of *szu-hsiang kai-tsao* (variously translated as "ideological remolding," "ideological reform," or as we shall refer to it here, "thought reform") has in fact emerged as one of the most powerful efforts at human manipulation ever undertaken."
(Singer & Ofshe, 1990)	"In essence, a thought reform program is a behavioral change technology applied to cause the learning and adoption of an ideology or set of behaviors under certain conditions."
(Zimbardo, 2002)	"Mind control is the process by which individual or collective freedom of choice and action is compromised by agents or agencies that modify or distort perception, motivation, affect, cognition, and/or behavioral outcomes. It is neither magical nor mystical, but a process that involves a set of basic social psychological principles"

Citation	Thought-Reform Definition Quotation
(Singer, 2003, p. 62)	"==Thought reform is a concerted effort to change a person's way of looking at the world==, which will change his or her behavior. It is distinguished from other forms of social learning by the conditions under which it is conducted and by the techniques of environmental and interpersonal manipulation that are meant to suppress certain behavior and to elicit and train other behavior."
(Lalich & Tobias, 2006, p. 40)	"==The goal of a thought-reform program is to change a human being at the very core== so that he will believe in a certain ideology, doctrine, or leader–and adapt and behave accordingly."
(Stein, 2017, p. 7)	"Rather, the central aim of this book is to show the common social psychological and structural elements that link these varied situations and that result in ==charismatic, authoritarian leaders shaping the minds of followers== so that they are not able to act in their own survival interests."
(Hassan, 2018, p. 108)	"While cult mind control can be talked about and defined in many different ways, I believe it is best understood as *==a system that disrupts an individual's healthy identity development==*."

Common to all of the thought-reform definitions shown in Table 4 is the notion that thought reform involves *changing human beings* in some way (this theme is highlighted in yellow). Professionals have stressed different aspects of this change, for instance with Hassan, Lalich, and Tobias stressing *identity* change while Stein stresses change resulting in followers *acting in ways contrary to their own survival interests*. Although "brainwashing" and "mind control" are phrases commonly used to denote thought reform, "thought reform" is the historically accurate term as it is the Chinese Communists' own language used to describe their process of ideological transformation, as indicated by Lifton's definition in the first row. Although each of these definitions has explanatory utility, Singer's definition (2003, p. 62) is used in this study as it encourages the reader to learn the academic models used for analyzing thought reform to determine exactly what the contextual "conditions" and manipulation "techniques" are that are unique to thought reform. The fact that thought reform can primarily be thought of as an issue of psychological exploitation means that it is a specific form of social engineering, and by extension, it is fundamentally a psychological security problem.

An important note on terminology is warranted — Hassan makes a distinction between brainwashing and mind control, reserving the term "brainwashing" for forceful, overt coercion and "mind control" for the subtle, deceptive form (2018). However, several other scholars have used the term "brainwashing" when referring to thought reform carried out through deception (Singer, 2003; Stein, 2017; Taylor, 2004). Additionally, other scholars

have asserted that the phrase "mind control" also has nonscientific connotations, pointing to "thought reform" as the more accurate term (Lalich & Tobias, 2006, p. 37). For the sake of simplicity, the term "brainwashing" in this study refers to both the covert and overt types of thought reform and is thus treated as an exact synonym for both "thought reform" and "mind control."

Foundational Concepts Relevant to Thought Reform

Core to a comprehensive understanding of thought reform are several foundational concepts. Six of "the ideas behind brainwashing" come from Kathleen Taylor's seminal work on brainwashing (2004, p. 98). Other core ideas found in the literature include ideological totalism, death anxiety, apocalypticism, psychological abuse, the ethical concerns inherent to thought reform, and the observation that thought reform shares many similarities with other forms of influence, all of which are briefly discussed below.

Taylor provided a list of several key ideas related to brainwashing including the ideas of power, change, causation, responsibility, the self, and free will (2004). Power is an important concept because brainwashing inherently involves control and influence. As the goal of brainwashing is to effect a change in another person, the concept of change is equally foundational. The idea of causation ties together the previous two ideas, as "influence attempts depend on the idea that the behaviour of the person making the attempt will cause changes in the target" (2004, p. 99). The idea of responsibility is an important aspect of social interaction and "is essential for the accurate assigning of credit and blame, reward and punishment" (2004, p. 99) — individual responsibility may be hard to pinpoint in the context of brainwashing because brainwashing involves a loss of personal autonomy. The idea of the self will influence how one conceives of brainwashing depending on whether one thinks of

the mind as "pure, disembodied, and independent of the physical world" (the mind is like a diamond) or "malleable, interconnected, and dependent on physical reality" (the mind is like clay) (2004, p. 100). The final core concept Taylor identified is the notion of free will, which the concept of brainwashing inherently threatens (2004).

Ideological totalism is another core idea in the thought-reform research field. Lifton originally defined ideological totalism as "the coming together of immoderate ideology with equally immoderate individual character traits–an extremist meeting ground between people and ideas" (1989, p. 419). Totalist ideologies do not allow for any form of dissent, are antidemocratic, and claim perfect knowledge of the past, present, and the future (Stein, 2017). The potential for totalism exists within everyone, and any ideology can become the object of totalistic energy but it is most likely to occur with those ideologies which are the most "messianic" and all-encompassing in their claims (Lifton, 1989, p. 419). Ideological totalism can be identified by the eight psychological themes that make up Lifton's criteria of thought reform — these are discussed later in this literature review.

Although ideological totalism and cultism have historically been considered related but separate phenomena, they are better thought of as inextricably related, with Lifton proposing the fusion of the two ideas together under the common label "cultism" (2019). The origins of ideological totalism in any given social context are complicated and unique, but in general can be thought of as originating from the embrace of ambiguous and emotionally-charged "ethereal ideas" which encourage totalist thinking (Taylor, 2004, p. 28) and the rejection of proteanism, the orientation towards life that allows individuals to avoid absolutes and enables them to see themselves as many-sided and capable of change (Singer, 2003, pp. XII-XIII).

Terror Management Theory is a psychological theory with hundreds of supporting studies that postulates that the fear of death is at the core of human existence, influencing "our thoughts, feelings, and behaviors in almost every domain of human life" (Solomon et al., 2015, p. x). This fear of death, dubbed "death anxiety," is related to cultism — Solomon et al. note that charismatic cult leaders such as Adolf Hitler and Mao Zedong become more attractive to followers as people become more concerned with their own survival. Additionally, they discuss how fear of death can lead people to denigrate outgroups and even engage in genocide in an effort to manage their death anxiety. Mao Zedong and Adolf Hitler both appealed to their followers' fears of death, offering a form of "collective immortality" to satisfy the human desire "for heroic triumph over death" (2015, p. 117). The interplay between death and immortality in the Nazi and Maoist worldviews is discussed further in (Lifton, 2019).

Related to death anxiety is the cultic tendency towards apocalypticism. According to Lifton, "much of the fuel for the cultist engine is provided by a strong emotional commitment to apocalyptic world purification" (2019, p. 5). Lifton writes that part of this world-ending narrative is the group's assertion that their members will survive the heralded apocalypse in some form, such as Mao Zedong asserting his followers would survive nuclear war with the imperialists. When apocalypticism becomes extreme enough, such as in Aum Shinrikyo, the cult may engage in proactive violence to hasten the end times, dubbed "forcing the end" (2019, p. 109). Lifton gives the example of Aum Shinrikyo, a group that released sarin gas on the Tokyo subway system in 1995 with plans to instigate World War III and destroy the world in a nuclear holocaust. Elements of apocalypticism were also behind the far-right extremist

attacks on the United States Capitol on January 6, 2021, with some of the participating groups anticipating an apocalyptic race war (Liewer, 2021).

Thought reform is closely related to the subject of psychological abuse. Psychological abuse occurs when a person's mind, autonomy, identity, or dignity is not respected (International Cultic Studies Association, n.d.-b; Langone, 1992). This form of abuse has been difficult to formally define or empirically study, with researchers creating various assessment instruments in an effort to objectively measure its characteristics (Almendros et al., 2011). One such measure is the Group Psychological Abuse Scale (GPAS or GPA), which has been studied in several different populations and has been shown to have consistent reliability, validity, and usefulness (Almendros et al., 2003; Almendros et al., 2011; Chambers et al., 1994). The original GPAS consists of four subscales — Compliance, Exploitation, Mind Control, and Anxious Dependency — these represent the "theoretical varieties of psychological abuse" (Chambers et al., 1994). Research findings using the GPAS suggest that the Mind Control subscale is the most consistent factor in abusive groups (Almendros et al., 2003). This finding is consistent with the results from another study which found that former cult members reported deceit and persuasion to be the most significant factor for explaining their cult involvement (Almendros et al., 2007). Another paper proposed a taxonomy for psychological abuse tactics by aggregating characteristics of abuse from three different contexts (workplace bullying, abusive relationships, and coercive groups) and found six categories of abuse tactics used across these contexts (tactics involving isolation, information control, control of personal or work life, as well as tactics that impact the victim's cognition, emotions, and behavior) (Rodríguez-Carballeira et al., 2013).

The phenomena of thought reform and cults raise important ethical questions. One such ethical quandary is the question of "whether one person should have near-total control over others" (Singer, 2003, p. XXV). This is an ethical extension of Taylor's foundational power idea mentioned earlier, which she refers to as "the dream of mind control" (2004, p. 245). Singer also mentions that cults represent a "consumer issue," as cult recruits are often deceived during recruitment and are not aware of what membership with the group will eventually entail (2003, p. XXIV). Singer mentions various other ethical issues raised by cults, such as the damage done to individuals and families, the threat of intimidation by cultic groups, and the promotion of authoritarianism in democracies, among other issues. In addition to ethical concerns related to mind domination, abuse, and deception, there are professional concerns that cultism could lead to the extinction of the human species because of the violent apocalypticism of some cults (Lifton, 2019). Lifton emphasizes that these existential concerns are not solely theoretical — the apocalyptic terrorist cult Aum Shinrikyo actively tried to procure weapons of mass destruction so that they could kill nearly everyone on Earth, and this dangerous apocalypticism is found in other dangerous groups such as ISIS.

Finally, a foundational concept is that thought reform is both distinct from and similar to other forms of influence. Singer proposed a five-part model to distinguish the major paradigms of influence, identifying key characteristics of education, advertising, propaganda, indoctrination, and thought reform (2003, pp. 58-59). According to this model, thought reform can be distinguished from the other paradigms of influence by its heavy use of deception, attempting to retain members forever, and the use of unethical influence techniques, among other aspects. Another scholar has mentioned that "the techniques used by cults are also used to socialize individuals as members of society. Although the process is much more intense

and manipulative during cult indoctrination, it is not outside our sphere of comfortable

recognition" (Langone, 1993, p. 85). This notion has long been recognized in the thought-

reform field, with scholars mentioning several social contexts that share similarities to thought

reform, including reformatories, mental hospitals, institutions of higher education, religious

orders, prisons and the criminal justice system, fraternities and sororities, sales and

advertising, mass media, psychotherapy, gangs, the training methods used by major

corporations, the military, and that elements of cultism can even be found "in some of our

most beloved institutions" (Atack, 2016, p. 26; Schein et al., 1961; Taylor, 2004).

Types of Brainwashing and Brain Change

Neuroscientist Kathleen Taylor discussed the different types of brainwashing and the

different modes of brain change in her book *Brainwashing: The science of thought control*

(2004). The two types of brainwashing she identified include brainwashing by stealth and

brainwashing by force. An infamous example of brainwashing by force was the kidnapping of

newspaper heiress Patty Hearst by the left-wing terrorist group the Symbionese Liberation

Army, a case that involved "gun-at-the-head" methods for eventually getting Hearst to

participate in a bank robbery (Singer, 2003, p. 56). Examples of thought reform via stealth

include the autobiographical accounts of deceptive recruitment experienced by Steven Hassan

and Alexandra Stein shared in their books on cults (Hassan, 2018; Stein, 2017).

The five types of brain change are summarized in Table 5 — all examples and

definitions are adapted from (Taylor, 2004). All these methods have the potential to be

utilized for thought reform. Additionally, no matter the method, "*all* brain-changing

influences act, at base, by changing brain electrochemistry" (2004, p. 235). Although there is

theoretically an electrochemical basis for understanding brainwashing in all its forms, the

major academic models for thought reform instead emphasize psychosocial aspects as these are more readily conceptualized and studied by researchers — technical progress could lead to more sophisticated models based on neuroscience for understanding the brainwashing process. Taylor notes that of these five types of brainwashing, the social and physical methods (the latter of which includes books, TV, radio, and the internet) are the most refined and most widely used, with the mechanical, chemical, and genetic methods representing mostly theoretical avenues for brainwashers. Any of the five types of brain change in Table 5 can be used overtly or covertly. For instance, technical (i.e. mechanical) methods for brainwashing could, theoretically, be carried out by stealth, such as the use of brain implants installed without a user's awareness — the possibility of a host being unaware of their own brain implant is discussed further in (Gladden, 2017).

Table 5

The types of brain change discussed in (Taylor, 2004)

Type	Definition of Type	Example
Physical	Using radioactivity, electromagnetism, quantum effects or other aspects of physics to change the brain.	Utilizing transcranial magnetic stimulation (TMS), a method that involves changing the brain with magnetic fields, to manipulate the behavior of animals or humans.
Mechanical and Organic	Using surgery, damage, or disease to change the brain.	Neurosurgeons removing specific beliefs from a patient's brain using precision lasers or miniature robots.
Chemical	Using neurotransmitters, food, hormones, drugs, or other chemical interventions to change the brain.	Utilizing a drug to reset neuronal connections in order to wipe the brain of specific content, such as pedophilic tendencies.
Genetic	Manipulating or leveraging genes to change the brain.	If specific genes are found to be associated with suggestibility and fanaticism, precision gene therapy could be utilized to manufacture extremists in a population.
Social	Changing the brain through culture, language, personal relationships, and other social influence methods.	An attacker tricks someone into giving up their freedom by downplaying existing freedoms and offering false freedoms.

How People Enter Thought-Reform Environments, Why They Stay, and

How They Leave

There are three primary reasons people find themselves trapped in thought-reform environments — they are forcibly abducted, deceptively recruited, or born or raised in the cult. Examples of cult abduction include the press-ganging of children by the Lord's Resistance Army in Uganda (Stein, 2017) and the Chinese Communist Party's mass incarceration and "re-education" of over a million Uighur Muslims (Ochab, 2020). Deceptive recruitment is widespread among multi-level marketing firms, which are a type of commercial cult, and this deception is found in other cults as well (Hassan, 2018). Children end up in cults when their parents or families are recruited or when their mother gives birth to them while in the group (Lalich & Tobias, 2006). Children can also end up in thought-reform environments through means other than being born or raised in the group — for instance, there are cases of parents in the United States unknowingly sending their children to abusive compounds associated with the troubled-teen industry (Bernstein, 2020a, 2020b).

Many variables factor into why cult members stay in abusive environments. Aside from the cases of forcible brainwashing and children being too young to leave on their own, the decision to leave is nuanced. Lalich and Tobias identified ten factors that could keep a person tied to their cult, including: lingering attraction to the belief system of the group; the desire to be decent and loyal by staying committed to the cult; the desire to obey the authority of the group; peer pressure; lack of information; exhaustion; confusion; separation from the past; fear; and feelings of guilt about participating in the cult (Lalich & Tobias, 2006). Lalich and Tobias explain that it is common for cult members to feel conflicted about leaving, and often they are not able to think clearly, lack self-esteem and self-confidence, have regressed to a childlike state of dependence on their cult, do not trust themselves or the outside world, and may be frozen with fear. All of these factors mean that, even for those who are considering

leaving, it is often quite difficult to commit to leaving an abusive environment (Lalich & Tobias, 2006).

There are four primary ways that people leave their cults — they can walk away, be thrown out, lose their leader, or be counseled out (Lalich & Tobias, 2006). Surveys of former cult members indicate that as many as 60-75% of respondents leave voluntarily (2006, p. 95). People forced to leave their cult are called "castaways," and these individuals tend to suffer the most after leaving (Hassan, 2018). The cult leader can be lost in many different ways, including through death, disappearance, arrest, abnegation, overthrow or because the group collapses (Lalich & Tobias, 2006). The least common method for leaving is being counseled out of the group and those who are counseled out tend "to find the help and information they need" (Hassan, 2018, p. 275).

There are two general types of methods for counseling members out of their cults — coercive deprogramming and voluntary exit counseling. Deprogrammings started in the early 1970s, with many deprogrammings carried out by Ted Patrick and Joe Alexander, two individuals whose family members were seduced by cults (Singer, 2003). Singer explains that deprogramming involves sharing information to help a cult member reevaluate their involvement and came to be associated with forcibly abducting and restraining cult members. Deprogramming is no longer a common practice because of its major disadvantages — it is often illegal and can be traumatizing for the cult member (Hassan, 2018). Hassan proposes non-coercive exit counseling as an alternative to deprogramming, such as his Strategic Interactive Approach (SIA), which involves waging an ethical influence campaign designed to empower cult members to critically evaluate their group involvement and reclaim their freedom on their own.

The Nature of the Cult Leader

Cult scholars hypothesize that cult leaders tend to have — or display traits of — one or more psychological disorders. Stein states that "the leader's psychopathology is at the root of the very structure of totalism" (2017, p. 108). Cult leaders often have traits associated with authoritarian personality, Narcissistic Personality Disorder, Antisocial Personality Disorder, sociopathy/psychopathy, and malignant narcissism (Atack, 2016; Burke, 2006; Hassan, 2019; Lalich & Tobias, 2006). They tend to lack or have diminished empathy and are thrill-seeking, boastful, self-aggrandizing, remorseless, guiltless, deceptive, impulsive, cunning, and cruel — in short, they "have no concern for the welfare or well-being of others" (Atack, 2016, p. 189). Cult leaders who are malignant narcissists may additionally show signs of paranoia, sadism, and violence (Hassan, 2019). Influential personality theorist Theodore Millon mentions that Jim Jones had a mixture of paranoid and narcissistic personality traits and that Charles Manson had an antisocial personality (Millon et al., 2004). Despite these observations by cult and personality experts, it is important to note that the psychology of cult leaders is difficult to investigate since these individuals tend to avoid cooperating with researchers, so they are instead analyzed indirectly through studying their biographies, interviewing people who knew them, and analyzing their communications (Stein, 2017). Thus, empirical research in this area is lacking.

A core aspect of the cult leader's personality is the charismatic relationship between the followers and the leader (Lalich & Tobias, 2006). Charisma can be defined as "a bond between leader and follower that involves awe and veneration of the leader" (Stein, 2017, p. 110). Stein explains that charisma serves to initially attract followers and then binds people to the cult through feelings of "love" and worship towards the leader or movement. Charisma is

not inherently dangerous or destructive, but when it is mixed with certain personality traits, it can result in charismatic cult leaders exploiting this otherwise positive human experience for their own goals which may or may not be beneficial for their devotees (Lalich & Tobias, 2006). Totalitarianism can be defined as charisma combined with authoritarianism, and separates the non-charismatic authoritarian leaders like Benito Mussolini from the charismatic totalitarian leaders such as Mao Zedong and Adolf Hitler (Stein, 2017).

Many cult leaders, such as est founder Werner Erhard and the founder of Newman Tendency, were involved with a cult prior to starting or leading their own — without proper psychoeducation upon leaving the cult, some individuals will perpetuate cultic abuse by practicing what they observed and experienced on others (Hassan, 2018). Some cult leaders are known to learn about thought-reform techniques by reading the academic literature on the subject — for example, Janja Lalich's former cult leader read Lifton's work on thought reform prior to forming her left-wing political cult (Langone, 1993). Some cult experts suggest that a book or an ideology can serve as a cult leader even in the absence of a human leader, with examples including Al-Qaeda being an ideology without a central authority and the novel *The Turner Diaries* inspiring Timothy McVeigh to carry out the Oklahoma City bombing in 1995 (Atack, 2016). In an interview with Steven Hassan, William Goldberg suggested that a computer algorithm can also function as a cult leader, such as with the QAnon conspiracy theory movement (Freedom of Mind Resource Center, 2021; 43:20). Next, the history of thought reform is discussed along with relevant current events.

Historical and Recent Events Involving Thought Reform

This section covers the broader historical and contemporary context of thought reform. Since "the more general issue of totalistic groups transcends any professional discipline and

has to do with larger social and historical forces," understanding the history of thought reform is crucial (Lifton in Singer, 2003, p. XI). This section starts with a brief history of thought reform, followed by an overview of past controversy in the thought-reform field, a discussion of thought reform and contemporary events in the United States, and ending with current and historical thought-reform events in South Dakota.

A Brief History of Thought Reform and Cults

The history of thought reform traces back to the dawn of human civilization. Socioeconomic troubles have been associated with increases in cult activity since ancient times, from the fall of Rome to the French Revolution to the Industrial Revolution in England to post-World War II Japan (Singer, 2003). According to Singer, "historically, we have seen that as the fabric of a society unravels, self-appointed leaders easily recruit a following. People at a loss to make sense of the mayhem around them look for direction and become more approachable and vulnerable to the manipulations and exploitations of these skillful con artists" (2003, p. 30). This phenomenon has been called "psychohistorical dislocation," which highlights the "breakdown of the symbols and structures that guide the human life cycle" (2003, p. XI). The United States of America is currently undergoing this psychohistorical dislocation (and an accompanying rise in attraction to cultism) as there has been a breakdown of trust between citizens and their institutions and many Americans are going through economic hardship — this leaves the country "wired for manipulation" (Hassan, 2019, p. 64).

The earliest forms of social control in human society included spy networks, management hierarchies, coercion of leaders and institutions, and the practice of torture (Taylor, 2004). Taylor notes that brainwashing techniques evolved from those used in torture, and torture has been practiced since the time of the ancient Egyptians. Many of the early

examples of thought-reform abuses occurred in the religious context. Jesus Christ was spiritually abused and spoke out about the spiritual abuse perpetrated by the Pharisees and Sadducees in his day (International Cultic Studies Association, 2021b). The religiously-motivated Crusades which ran from 1096 until 1291 represented a devastating abusive event with consequences that still ripple throughout today's culture (International Cultic Studies Association, 2021b). The Catholic Inquisitions in Europe which ran from the 13th century to the 16th century were "egregious, religiously-motivated abuses propagated by the Catholic Church" (2021b, 13:56).

One of the infamous manifestations of torture in human history was the phenomenon of witch hunting, which was a form of totalism like that found in cults (Atack, 2016). The 15th century manual *Malleus Maleficarum* ("Hammer of Witches" or "Hammer of Evil-doers") contained many torture methods for extracting confessions from those accused of witchcraft — and victims did not have an opportunity to demonstrate their innocence (Sagan, 1996, p. 119; Taylor, 2004, p. 90). Although the practice of torture has been on the decline since the 18th and 19th centuries (Taylor, 2004), torture still occurs in countries around the world, with 21st century examples including the United States' torture of terrorists at black sites (Atack, 2016) and the forced sterilization and torture of Uighur Muslims in China (Hernandez, 2020).

Thought reform as a systematic method for changing minds was invented in the 20th century (Ofshe & Singer, 1986). The Soviet purge trials of the 1930s heralded the emergence of modern-day thought reform, with men and women being manipulated into falsely accusing themselves and others of crimes against the state (Singer, 2003). In the 1940s and 1950s, the Chinese Communist Party executed their nationwide campaign of "ideological remolding" (i.e., thought reform) under chairman Mao Zedong, systematically changing the worldviews

and behavior of millions of Chinese people (Singer, 2003). Chinese thought reform emerged from a societal identity crisis involving the rebellion against traditional Chinese filial (parental) piety, the encroachment of Western influences in Chinese society, and the redirecting of filial emotions to the new Communist regime through the denunciation of one's father during thought reform (Lifton, 1989). The term "brainwashing" came from this time period, derived from the Chinese phrase *Hsi Nao* (literally, "cleansing the mind") which suggests "the idea of washing away the vestiges of the old system… in the process of being re-educated to assume one's place in the new Communist society" (Schein et al., 1961, p. 16). "Brainwashing" as a term for thought reform was popularized by the journalist Edward Hunter in his seminal book *Brain-washing in Red China* (1951), a work that is considered by scholars to be a piece of CIA propaganda (Taylor, 2004). Chinese Communist thought-reform methods were exported to North Korea where they were applied to United Nations' POWs during the Korean War between 1950 and 1953 (Atack, 2016, p. 42).

Aside from Mao Zedong, other significant totalitarian leaders from the 20th century include Adolf Hitler, Joseph Stalin, and Pol Pot (Stein, 2017). Hitler was the "murderous guru" of Nazism and his ideology of biological purification catalyzed a genocidal movement that resulted in millions of deaths (Lifton, 2019, p. 134). Joseph Stalin's regime killed millions (Haven, 2010) and arbitrarily imprisoned dissidents, including sending the director of a paper factory to prison for 10 years for being the first one to stop applauding Stalin at a 1937 conference of the Communist Party (Hassan, 2019). Pol Pot's regime killed a quarter of Cambodia's population and is known for their killing fields (Stein, 2017; Taylor, 2004). One 2017 study found that former personnel of Pol Pot's infamous S-21 prison were still stuck in the mindset of thought reform even decades after their participation in the Cambodian

Genocide (Kanavou & Path), illustrating how a legacy of thought reform can be difficult for a society to overcome.

While these totalitarian regimes were operating in other parts of the world, the United States was dealing with its own issues related to totalism. From the 1819 to 1969, known as the Boarding School Era, the United States federal government in coordination with churches and missionary schools sent more than 100,000 Native American children to some 408 prison-like boarding schools (Miquelon, 2017; Newland, 2022; Worden, 2021). At these boarding schools, children were subjected to various forms of abuse and punishment such as manual labor and corporal punishment, forbidden from speaking their Native language, and ultimately forced to adopt American culture (Miquelon, 2017). Miquelon's article suggests that this abduction and indoctrination of Native children fits the academic models for thought reform laid out by Singer and Lifton. A 2022 investigative report by the U.S. Department of the Interior mentions that these Native American children underwent "systematic identity-alteration methodologies" (Newland, 2022, p. 53), further suggesting the use of thought reform against Native Americans. Recognition of the cultural genocide against Native Americans has reemerged into the public consciousness after the discovery of the remains of 215 indigenous children in a mass grave at a boarding school in Canada (CBS This Morning, 2021).

McCarthyism was a totalistic movement to combat Communism that lasted from the late 1940s until the 1950s, arising because "American fear over the cold war, atomic holocaust, and internal subversion united with the fundamentalist tradition" (Westin, 1967, p. 31). McCarthyism as a political movement was disastrous for combating Communism as "it not only did great service to Communism throughout the world, but also became a poor

imitation of its declared enemy" (Lifton, 1989, p. 457). Issues of totalism are also apparent in historical accounts of public debate around polygraphs in the 1960s, which included issues such as polygraphs being used to extract false confessions, polygraph purveyors asserting that the technique was infallible despite a lack of peer-reviewed evidence, and polygraphs being used to ask employees about private matters such as their sexual activities, political beliefs, and union activities (Westin, 1967). A disastrous result of American totalism in this time period were the undercover Central Intelligence Agency MK-ULTRA mind control experiments, which lasted from the 1940s until the early 1960s, resulting in thousands of unwitting Americans being experimented on in unethical and illegal psychology research (Hassan, 2018). These experiments studied the effectiveness of mind-altering drugs such as LSD and BZ, electroshock therapy, sensory deprivation, isolation, hypnosis, sexual and verbal abuse, and even brain surgery. Hassan notes that despite investigations from Congress and academics, most of the evidence for the MK-ULTRA experiments was illegally destroyed by the CIA and no one was ever held accountable for the illicit mind control program.

Native American genocide, McCarthyism, polygraph controversy, and MK-ULTRA proved to be only the beginning of a long string of significant thought-reform events to occur in America during the 20th century. The late 1960s and early 1970s saw rapid expansion of a new type of thought reform (Ofshe & Singer, 1986). Ofshe and Singer explain that, unlike first generation thought-reform programs from the decades prior that focused on attacking peripheral aspects of a person's self, such as social status or political beliefs, these second generation programs relied much more on deception and attacking the central aspects of the self, such as personal relationships, sexual experiences, traumatic life events, personal aspirations, and "the very sense of realness and existence of the self." According to Margaret

Singer in her seminal 1979 magazine article "Coming Out of the Cults," "the recent upsurge of cults in the United States began in the late 60s and became a highly visible social phenomenon by the mid-70s. Many thousands of young adults—some say two to three million—have had varying contacts with such groups, frequently leaving home, school, job, and spouses and children to follow one or another of the most variegated array of gurus, messiahs, and Pied Pipers to appear in a single generation" (Singer, 1979). Thus, the 1960s and 1970s not only saw evolution in the sophistication of thought-reform techniques, but also saw thought reform become widespread throughout American society.

Many cult-related tragedies have shaken the world since the late 1960s. In August 1969, the Manson Family cult murdered seven wealthy people in Los Angeles, including a pregnant woman (Taylor, 2004). Newspaper heiress Patty Hearst was kidnapped by the left-wing terrorist cult Symbionese Liberation Army in 1974, starved, raped, and locked in a closet for weeks, and was eventually arrested and convicted after being coerced into participating in a bank robbery (Hassan, 2018). On November 18, 1978, 912 members of Jim Jones' Peoples Temple cult and several others died in a mass murder-suicide in Guyana, including 276 children, as well as US Congressman Leo J. Ryan and four journalists who were assassinated after visiting to investigate allegations of abuse at the cult compound (Singer, 2003). Although some congressional action was undertaken to investigate Jonestown, anti-cult activists were censored and the US government never enacted legislation to curb thought-reform abuses in response to Jonestown (Hassan, 2018).

The Branch Davidian compound in Waco, Texas went up in flames after a botched FBI confrontation on April 19, 1993, killing more than 80 people, including approximately 25 children (Lalich & Tobias, 2006). On March 20, 1995 the terrorist cult Aum Shinrikyo

released sarin gas on the Tokyo subway system, killing 21 people and injuring 6,000 others (Santos et al., 2019). In 1997, 39 members of the UFO cult Heaven's Gate committed mass suicide in Southern California, consuming a lethal mixture of vodka and phenobarbital, convinced they would return to their extraterrestrial home and live forever (Singer, 2003). The Movement for the Restoration of the Ten Commandments of God, a Ugandan Christian doomsday cult, killed over a thousand people in March 2000 after a failed doomsday prophecy, with more than 500 dead found buried after being stabbed and having acid thrown in their faces and 500 burned alive in the cult's church, their bodies found piled up at the exits and windows, failing to escape their leaders' final act of destruction (Singer, 2003).

Among the most significant thought-reform events to occur in America were the terrorist attacks on September 11, 2001, when four airplanes were hijacked by the terrorist cult Al-Qaeda and used to destroy the World Trade Center, attack the Pentagon, and kill thousands of innocent people (Singer, 2003). The trauma of 9/11 led the United States to declare war on Iraq, a country "totally unconnected to the terrorist attacks of 9/11," in addition to the controversies surrounding CIA black sites, "enhanced interrogation," torture and abuse at prisons like Guantanamo and Abu Ghraib, and clandestine NSA surveillance (Herman, 2015, pp. 248-249). The totalist orientation towards the problem of terrorism can be thought of as an "inheritance" of MK-ULTRA, as insights from the post-WWII mind control projects have been deployed at torture sites by the US military during the War on Terror (Atack, 2016, p. 153).

Despite the many historical incidents related to thought reform and its ongoing relevance, today many people are still ignorant of cults and thought reform, including a lack of awareness of seminal tragedies such as Jonestown (Hassan, 2018). Thought reform is still

used in many different social contexts, and there is a continuing lack of legal controls to prevent human beings from abusing each other (Hassan, 2018, 2020a; Scheflin, 2015). Thought-reform issues have never been more relevant to discourse on security, as totalism mixed with climate change or nuclear weapons could result in the extinction of the human species (Lifton, 2019), cult leaders continue to attack the minds of millions of people (Hassan, 2018), and cultic groups actively threaten American democracy, clear from the attempted insurrection by far-right extremist groups during the January 6, 2021 attack at the United States Capitol (Stein, 2022).

In addition to real-life events, works of fiction have historical importance to the cultic studies field, as themes of thought reform and cultism have been present in artistic works for centuries. The medieval German folk legend "The Pied Piper of Hamelin" contains themes of mind control as it involves a man first ridding a town of its rats with an enchanted pipe and later returning to abduct the town's children with his seductive tune (Charlie In Westeros, 2017). The seminal works of fiction portraying thought reform include George Orwell's *1984* (1977, originally published in 1949), Aldous Huxley's *Brave New World* (1946, originally published in 1932), and Richard Condon's *The Manchurian Candidate* (1959). The portrayal of thought reform in *1984* was so similar to Chinese Communist thought reform that one survivor of Chinese Communism stated that "I could compare this [Orwell's *1984*] with my own experience on the mainland, and see that this was the logical eventual result of life under Communism" (Lifton, 1989, p. 327). Thought reform continues to pervade contemporary literature, cinema, and art, with one example being the critically acclaimed Japanese anime *Puella Magi Madoka Magica* (Iwakami & Mori, 2011; Miyamoto & Shinbo, 2013) with its

heavy use of thought-reform themes and symbols including witch hunting, deceptive cult recruitment, totalitarianism, and human exploitation.

Thought-Reform Denial and Polarization in the Cultic Studies Field

Historical issues within the cultic studies field involve denial of the existence of thought reform and polarization in the academic discourse. Thought-reform denial is as old as the influence paradigm itself — in his 1961 seminal work on the topic, Robert Lifton mentions that "there is also another kind of myth, the claim that there is no such thing [as brainwashing], that it is all just the fantasy of American correspondents" (Lifton, 1989, p. 4). Decades later, this thought-reform denial is still a problem not just among laypeople, but also among academicians — in 2017, Alexandra Stein stated that the dominant view in academia was that "coercive persuasion or brainwashing doesn't exist, doesn't occur" (2017, p. 6). More recently, in response to the title of Steven Hassan's book *The Cult of Trump*, one professor of religion stated that brainwashing and mind control are "pseudoscientific concepts that lack any empirical support" (Zeller, 2019). Jon Atack wrote a critical response to Zeller accompanied by more than a dozen cult-expert signatories correcting the misconception that brainwashing is "pseudoscientific" (Atack, 2020).

Polarization within the cultic studies field was catalyzed by the controversies surrounding coercive deprogramming that started in the 1970s (Langone, 1993) and the participation of cult scholars in high-stakes legal battles involving cults which encouraged thinking in absolutes and the separation of cult scholars into two different "thought communities" (Robbins & Zablocki, 2001, p. 6). The two sides of the academic debate — those critical of cults and those sympathetic to cults — came to be associated with various labels, including "cult critics" or "the anti-cult movement" to describe the former and "pro-

cultists" or "cult apologists" to describe the latter (Langone, 1993, pp. 31-32). The decades-long "Cult Wars" was marked by acrimonious debate, lawsuits among scholars, name-calling, and high levels of suspicion of those in the opposing camp (Directors of ICSA, 2013; Langone, 1993; Robbins & Zablocki, 2001).

A major step for decreasing polarization among cult researchers was the edited book *Misunderstanding Cults: Searching for Objectivity in a Controversial Field* (Robbins & Zablocki, 2001) which contained contributions from both types of scholars and explored issues such as objectivity of cult scholars, brainwashing theories, and the level of concern cults warrant. In the early 2000s, the polarization that had characterized the cultic studies field had begun to diminish, with scholars from both sides starting to civilly debate the issues (Langone, 2005). Although some polarization remains, most can agree that "some groups harm some people sometimes, and that some groups may be more likely to harm people than other groups" (Directors of ICSA, 2013). The remainder of this section gives examples of concerns on both sides of the academic divide in the cultic studies field — rather than analyze and discuss each claim, the points are listed purely for historical reasons to illustrate the types of issues that were so hotly contested during the Cult Wars.

Cult sympathizers have raised many concerns. One scholar noted various shortcomings and contradictions in discussions of brainwashing theories, proposing alternate social psychology theories as explanatory models for cult recruitment (Richardson, 1993). Related to this have been concerns that brainwashing interpretations have been unduly informed by the CIA's original perspective on brainwashing, and that these interpretations were being used to persecute and control minority religions (Anthony, 1999). A 1978 law article discusses the legal problems associated with forcible deprogramming (LeMoult). Other

scholars have discussed how brainwashing is not a tort and that claims of coercive persuasion are inadequate in the courtroom for various reasons, including that established religions often have similar coercive practices as cults (Young & Griffith, 1992). A concern that has been frequently raised by cults is the issue of religious freedom, that cult critics are attacking their right to believe whatever they want (Hassan, 2018).

Various concerns have been raised by cult critics about the actions and statements of cult sympathizers. Margaret Singer emphasized that cult apologists propagate a "Myth of the Seeker," which is the idea that those who end up in cults actively seek the groups they end up in, in contrast to her extensive clinical experience and the literature (2003, pp. 23-24). There have been concerns about conflicts of interest when researchers accept money or favors from the cults they are researching, with one frequently cited example being how the Unification Church helped fund Eileen Barker's book *The Making of a Moonie: Choice or Brainwashing?* (1984) by paying for Barker's trips to over a dozen conferences around the world (Hassan, 2018; Singer, 2003). Other scholars have asserted that cult sympathizers have done damage by denying the harm that cults cause (Lalich & Tobias, 2006). One cult expert asserts that "internal politics" is to blame for the American Psychological Association failing to take up a task force related to cults headed by Margaret Singer in 1983 (Hassan, 2018, p. 302).

Thought Reform in the United States

Recent events in the United States have had a profound effect on the discourse on thought reform and cults. Donald Trump's presidency, the COVID-19 pandemic, and the 2020 racial protests are among the most significant and relevant current events and are discussed in the remainder of this section. What all of these seismic events have in common

with thought reform is that they all involve a struggle over what is real (Freedom of Mind Resource Center, 2020a).

A contemporary strand of discourse in the thought-reform field is the association of former United States President Donald J. Trump with cultism and thought reform. Prominent psychologist Philip Zimbardo has likened the mind control techniques of Donald Trump to Jim Jones and those found in Orwell's *1984* (2019). Other prominent cult experts who have associated Donald Trump with cultism include Steven Hassan, Robert J. Lifton, Jon Atack, Stephen Kent, Steve Eichel, Janja Lalich, Alan Scheflin, Dennis Tourish, Alexandra Stein, and Dan Shaw, among others (Hassan, 2019). Various aspects of Trump's apparent cultism have been discussed, including political ties with cultic groups attempting to end the separation of church and state in America (Hassan, 2019), Trump's attack on the mainstream media and exerting his own false version of reality through social media (Zimbardo, 2019), and Trump's generation of a "solipsistic reality," which is "a cognitive process of interpreting the world exclusively through the experience and needs of the self" (Lifton, 2019, p. 156). Fully exploring the connection between Donald Trump and cultism is beyond the scope of this study, although it should be noted that insofar as the concern of cult experts is warranted, the ascension of any type of cult leader to the presidency of the United States has profound implications for national security, liberal democracy, the cultic studies field, and the defense of the minds of all Americans.

As with many other areas of life, the COVID-19 pandemic had a profound influence on the state of thought reform and cults. Domestic violence in America spiked following the COVID-19 lockdowns (Mozes, 2020). Cult survivors have dealt with past trauma due to the pandemic, including intrusive memories, body aches, feelings of helplessness, anxiety,

depression, fear, dread, dissociation, shame, and fears of Armageddon, among other difficulties (International Cultic Studies Association, 2020b). Cults leverage disasters such as pandemics to recruit members, including creating front organizations claiming to help people (International Cultic Studies Association, 2020c; Loew, 2020). One example of a cultic movement that benefited from the COVID-19 pandemic was the QAnon conspiracy theory cult, which saw a 600% spike in membership to its Facebook groups following the COVID-19 lockdowns, with one survey suggesting that the majority of Republicans believed most or part of the conspiracy theory, despite the movement being labeled as a domestic terror threat by the Federal Bureau of Investigation (Beer, 2020). In addition to these aspects, the reality of the COVID-19 pandemic and vaccines were the target of "falsifiers" such as Donald Trump and his followers who – according to brainwashing expert Robert Lifton – contributed to thousands of unnecessary deaths by spreading false information about the virus (Freedom of Mind Resource Center, 2020d, 13:00).

The 2020 racial protests sparked by the death of George Floyd in the United States has also been tied back to thought reform as an extension of the "struggle for reality" inherent to the issue of thought reform (Freedom of Mind Resource Center, 2020a, 1:25). According to Robert Lifton, "there's something historical going on" as the protestors focus on the historical truths about black experience in America (2020a, 1:52). These racial protests are one of several struggles for truth happening simultaneously, as "the struggle for the reality of racism and oppression connects with the struggle for reality in relation to the [corona]virus and also in relation to climate change and indeed even nuclear weapons" (2020a, 4:26). Another major expression of the struggle for truth in the political realm has been the widespread rejection of the outcome of the 2020 United States presidential election by Americans, and in general it

could be said that America is currently going through what Lifton calls a nationwide "reality disorder" (Freedom of Mind Resource Center, 2020d, 2:20).

It is unclear what the future of thought reform in the United States will bring, but it is apparent that addressing issues related to thought reform are crucial to the society. Next, as South Dakotan residents are the population chosen for this study, thought-reform events in South Dakota are discussed.

Thought Reform in South Dakota

Multiple significant events related to cults and thought reform have occurred in South Dakota. Since 2007, there have been 175 cases of human trafficking involving 579 victims in South Dakota (Polaris, n.d.). Over the years law enforcement has performed sting operation during the annual Sturgis Motorcycle Rally which has resulted in dozens of arrests related to sex trafficking (Native Hope, n.d.). Pheasant hunting season is also associated with human trafficking, with strip clubs in rural towns offering entertainment to hunters — the line between exotic dancing and prostitution can become blurred at these establishments as dancers seek ways to pay off debt and fees related to their work (Fugleberg, 2018).

One 2000 study investigating child fatalities due to religiously-motivated medical neglect between the years 1975 and 1995 cited five deaths in South Dakota from the End Time Ministries (Asser & Swarn, 2000). Lyle Jeffs, a leader of the Fundamentalist Church of Jesus Christ of Latter-Day Saints (FLDS) cult, was arrested in South Dakota in 2017 after fleeing law enforcement for nearly a year (Fox News, 2017a). A judge ordered the sale of FLDS's 140-acre compound near Pringle, South Dakota in the southern Black Hills in order to pay reparations for three former FLDS members who were illegally arrested by the cult in Arizona (Zionts, 2021).

Two thought-reform contexts, human trafficking and domestic violence, are especially relevant to the native population in South Dakota. Oglala Lakota county in South Dakota is one of the poorest counties in the United States and home to the Pine Ridge Indian Reservation (Starr, 2019). Starr writes that in addition to high rates of alcohol consumption and suicide, the female population is targeted for human trafficking and suffers from an epidemic of domestic abuse, including the disappearance or murder of 75 native women and girls over the years. Domestic violence against Native Americans is much higher than the national average, with 84% of American Indian and Alaska Native women having experienced violence compared to 35% of women in the general United States population (DomesticShelters.org, 2017). Over 40% of human-trafficking victims in South Dakota are Native women despite Natives only making up 13% of the state's residents (Native Hope, n.d.).

Academic Models of Thought-Reform Processes

Several models for thought reform have been proposed in the research literature. Table 6 shows many of these academic models, organized chronologically. This section will give a brief, non-comprehensive overview of each model.

Table 6

The academic models proposed for explaining thought reform

Academic Model	Original Citation(s)
Debility, Dependency, and Dread (DDD)	(Farber et al., 1957)
Unfreezing, Changing, and Refreezing	(Schein et al., 1961)
The Eight Criteria for Thought Reform	(Lifton, 1989, originally published in 1961)
The BITE Model of Mind Control	(Hassan, 2018, originally published in 1988; 2020a; Hassan & Shah, 2019)

Academic Model	Original Citation(s)
The Six Conditions for Thought Reform	(Singer, 2003, originally published in 1995)
Bounded Choice	(Lalich, 2004; Lalich & Tobias, 2006)
Social Influence Model (SIM)	(Scheflin, 2015)
Terror, Love, and Brainwashing	(Stein, 2017)

Debility, Dependency, and Dread (DDD) Syndrome

One of the first proposed academic models for brainwashing was Farber et al.'s "DDD syndrome," which found the themes of debility, dependency, and dread to be common in the treatment of American prisoners of war by the Chinese Communists (1957). Debility refers to physically weakening the victim through means such as starvation, lack of hygiene, disease, fatigue, and physical abuse. Prolonged social isolation and "occasional unpredictable brief respites" from physical depredation were key factors in fostering dependency in the prisoners. Dread was induced through various overt and implied threats, with prisoners fearing death, pain, violence, not satisfying the interrogators' demands, not being able to repatriate, and suffering deformity or physical disability from the physical abuse. Despite large differences in brainwashing methods decades later, the dependency and dread themes are still relevant for how modern-day cults operate (Lalich & Tobias, 2006). Most cults cannot forcible restrain and debilitate new members, so they rely on deception instead — thus, one can think of "the new DDD syndrome" as "*deception* [emphasis added], dependency, and dread" (Langone, 2021a; Langone, 1993, p. 7).

Three Stages of Coercive Persuasion: Unfreezing, Changing, and Refreezing

Schein et al.'s model of coercive persuasion was developed using the three-stage change model originally proposed by Kurt Lewin in the context of groups and organizations

(Lewin, 1947) in order to investigate the Chinese Communist thought-reform methods used on Americans imprisoned in China during the Korean War (Schein et al., 1961). Since it was originally published, Schein et al.'s model has been used to explain the sequential process that is used by cults to program the false cult identity during thought reform (Hassan, 2018, 2020a; Singer, 2003). The three stages of coercive persuasion include unfreezing, changing, and refreezing, and are outlined below.

Unfreezing is the first step of coercive persuasion and involves destabilizing the target to induce an identity crisis (Singer, 2003). This destabilization is designed to undermine the target's self-confidence and worldview, and ultimately makes them more open to suggestion and dependent on the cultic milieu for how to behave and how to think. Unfreezing can be accomplished through both physiological and psychological means such as sleep deprivation, diet modification, physical and social isolation, information overload, sensory overload or deprivation, privacy deprivation, long indoctrination sessions, and hypnotic techniques such as double binds, trance induction, age regression, and intense emotional visualizations (Hassan, 2018, 2020a).

The changing step focuses on forming the new programmed cult identity (Hassan, 2020a). Due to the destabilization of the unfreezing step, the target is primed to adopt the behaviors and worldview of the group as a method for resolving the induced identity crisis, stepping into the cult identity through a combination of peer pressure, social emulation, and pronouncing commitment to the path proffered by the group (Singer, 2003). Much of the techniques used in the unfreezing step are carried over into the changing step, in addition to indoctrination sessions, recruiting others, consuming cult media like books and videos, spending time around other believers, behavior modification techniques, rewards and

punishments, confession, repetition, hypnosis, and staging mystical experiences based on

personal information obtained about the target (mystical manipulation from Lifton's criteria

of thought reform) (Hassan, 2018, 2020a).

Refreezing reinforces the new cult identity and suppresses the target's old, authentic

identity (Hassan, 2018). Many of the techniques from the previous two steps may be carried

over into the refreezing step. Refreezing techniques include modifying the target's name, hair,

clothing, language, or conception of family, destroying old belongings such as photographs or

videos, distorting the target's memories, regular indoctrination, having the target donate their

possessions or bank account, filling the target's time with group activities, assigning the target

an older and more experienced role model, and having the target recruit and indoctrinate

others (Hassan, 2018, 2020a).

The Eight Criteria for Thought Reform

The eight criteria for thought reform were first documented in Robert J. Lifton's

seminal work *Thought Reform and the Psychology of Totalism: A Study of "Brainwashing" in

China*, originally published in 1961 (1989). These "eight deadly sins" of ideological totalism

are psychological themes that center on the attempt to own reality and can identify the

presence of thought reform in any social environment (Lifton, 2019, p. 66). This academic

model has been invaluable for survivors of cults to understand the systematic influence

processes that they experienced while in their abusive groups (Langone, 1993; Lifton, 2019).

The first criterion is milieu control, which is the attempt to achieve total control of the

internal and external human communication in the environment (Lifton, 2019). Milieu control

lays the foundation for the whole thought-reform environment by stifling individual autonomy

and identity and preventing followers from reality-testing their environment and their own

personal experience. The second theme is mystical manipulation and involves the practice and rationalization of extreme interpersonal deception and manipulation, including engineering planned mystical experiences for the followers, manipulating individuals to betray themselves and each other, and using "every possible device at the milieu's demand, no matter how bizarre or painful" (2019, p. 71).

The demand for purity refers to the splitting of the world and personal experience into the absolutely good and the absolutely evil, with the pure being defined as anything that conforms to the totalist ideology and the impure as being everything else (Lifton, 2019). This polarized interpretation of the world creates an intense environment of guilt and shame that is leveraged for manipulation and control as followers continually strive for inhuman levels of purity. Related to the demand for purity is the cult of confession, which refers to the continual psychological purging of impurities through personal confessions and the total invasion of privacy. In contrast to legitimate forms of confession, the cult of confession in a totalist environment is leveraged to disrupt the follower's inner balance between worth and humility as well as the public and private aspects of the self.

The sacred science refers to the totalist milieu proclaiming "an aura of sacredness around its basic dogma, holding it out as an ultimate moral vision for the ordering of human existence" (Lifton, 2019, p. 79). The totalist ideology is held out as the indisputable truth, based on science and perfect logic, explaining everything in the past, present, and future — the follower may feel comfort and security in the certainty of the totalist doctrine, but fear and guilt when they doubt or ignore it. Loading the language involves constricting the followers' thinking and feeling with thought-terminating clichés, reducing all of the complexity of the world and personal experience into overly simplistic phrases. The group's jargon is

engineered to proclaim the certitude of the sacred science, suppress critical ideological

analysis, and encourage the polarized judgement of the world required by the demand for

purity via dubbing "god" and "devil" terms.

Doctrine over person is the assumption that the doctrine "is ultimately more valid,

true, and real than is any aspect of actual human character or human experience" (Lifton,

2019, p. 85). This mandate leads to retrospectively altering records of historical events to fit

the doctrine (which may include distortion of the followers' memories), rationalizing any

changes to the doctrine as faultless consistencies, and ultimately changing human beings to fit

the totalist doctrine. The last criterion is the dispensing of existence, the totalist movement

sharply divides those humans who have the right to exist and those who do not. The

dispensing of existence seeks to eliminate all "false existence" in the world, encourages

followers to undergo a "total merger" with the ideological movement by leveraging their fears

of annihilation, and at its most extreme, can lead to the killing of nonbelievers (2019, pp. 88-

89).

The BITE Model of Mind Control

The BITE model of mind control was developed by cult exit counselor Steven Hassan

in the 1980s and has been used to help thousands of cult survivors leave their destructive cults

(Hassan, 2018, 2020a). The BITE model consists of two major components — the first is the

influence continuum, shown in Figure 1, showing a spectrum of influence characteristics from

healthy, constructive influence to unhealthy, destructive influence from the standpoint of

individuals, leaders, and relationships. The second component consists of the four categories

of control tactics summarized within the BITE acronym, standing for behavior control,

information control, thought control and emotional control. Social situations that tend to

exhibit characteristics towards the right side of the influence continuum and tend to utilize

control tactics within each BITE component are more likely to be situations involving

destructive mind control (Hassan, 2018) — thus, the BITE model can be used as a tool to

detect thought reform. Detailed lists of control tactics within each BITE category can be

found online and in print (Freedom of Mind Resource Center, n.d.-c; Hassan, 2019, pp. 79-

83), and examples of these tactics are outlined below.

Figure 1

The BITE model influence continuum (Hassan, 2020a)

The BITE model has its roots in other major psychology and brainwashing theories. Core to the BITE model is cognitive dissonance theory, originally developed by Leon Festinger (1957). The first major study to investigate cognitive dissonance theory in a real-world setting involved observing a Wisconsin UFO cult, with many members showing *increased* commitment to the group even after a failed doomsday prophecy (Festinger et al., 1956). Cognitive dissonance theory predicts that human beings seek to maintain internal consistency, and that they will tend to minimize inconsistency among their behavior, thoughts and emotions (Festinger, 1957; Hassan, 2018). The BITE model combines these insights from cognitive dissonance theory with previous brainwashing work from Lifton, Singer, West, and Schein, adding "I" to represent information control as a major factor (Freedom of Mind Resource Center, n.d.-c; Hassan, 2018). An attacker can radically change their victim by inducing cognitive dissonance by exerting enough pressure on one or more BITE components — with overwhelming enough input, the components of a victim's mind will shift towards the programmed cult identity to maintain internal consistency (Hassan, 2018).

Behavioral control tactics center on controlling cult members' physical reality, which can include regulating their sleep schedule, leisure time, work duties, and how they spend their money (Hassan, 2018). This control can even extend to minute details of daily life such as what the cult members eat, who they talk to, what they wear, and who they have sex with (Freedom of Mind Resource Center, n.d.-c; Hassan, 2018). Major outcomes of behavioral control include instilled dependency on the group, leader, and ideology, abusive punishment for infractions, and a loss of individuality (Hassan, 2018; Hassan & Shah, 2019).

Information control is achieved by tactics such as deception, lack of informed consent, distortion, minimizing access to sources of information critical of the group, the leader or the

ideology, encouraging members to spy and report on each other, information

compartmentalization (i.e. "need to know"), maintaining differing hierarchical levels of

"truth" within the group, manipulating sensitive personal information extracted from

confessions, and recruiting or propagandizing through deceptive front organizations (Hassan,

2018; Hassan & Shah, 2019). Destructive cults are known to manipulate Wikipedia pages and

search engines to discredit cult experts and bury negative information (Hassan, 2018; Hassan

& Shah, 2019). Strict information control prevents members from making sound judgements

by denying them access to crucial information needed to fairly evaluate their involvement

with a leader or group (Hassan, 2018).

A major phenomenon in thought-reform environments is thought-stopping, which cult

followers are trained in to eliminate negative thoughts about the group, the leader, or the

ideology (Hassan, 2018). Thought-stopping can be accomplished via loaded language,

"thought-terminating cliches," chanting, praying, meditation, speaking in tongues, singing,

humming, and rocking back and forth. Other methods for thought control include unethical

use of hypnosis, implanting false memories, changing the member's name, promoting rigid

black and white thinking, and discouraging critical thinking (Freedom of Mind Resource

Center, n.d.-c). Outcomes of thought control include the alienation of cult members from their

loved ones and mainstream society, denying members the ability to reality-test, preventing

any doubt about involvement with the cult, and stymying critical thinking (Hassan, 2018).

Emotional control is centered on weaponizing the emotions of the cult member,

especially guilt, fear, and disgust (Hassan, 2018; Hassan & Shah, 2019). Guilt is induced by

confessions and blaming the cult member for every negative aspect of their lives, and personal

information extracted during confessions may be used for blackmail and intimidation

(Hassan, 2018). Fear is inculcated in members through phobia indoctrination, such as repeated warnings that leaving the group or relationship will result in death, committing suicide, going insane, losing salvation, not finding happiness outside of the group, demon possession, 10,000 reincarnations, or other severe negative consequences (Freedom of Mind Resource Center, n.d.-c; Hassan, 2018). These implanted phobias can trigger a panic reaction when a cult member thinks about leaving the group (Hassan, 2018). Hassan suggests that phobia indoctrination is the most powerful method of emotional control. Other emotion manipulation techniques include "love bombing" new recruits to make them feel special and loved, singing "happy" songs about the leader, group or ideology, and promoting disgust towards the out-group (a universal characteristic of groups that engage in genocide) (Hassan & Shah, 2019).

The Six Conditions for Thought Reform

The six conditions for thought reform was originally developed by cult expert Margaret Singer (2003). Lifton and Schein's models for thought reform focus on the *sequence* of thought-reform processes; Singer's model instead focuses on the *conditions* needed for thought reform to be effective (2003, p. 64). These six conditions include (2003, p. 63):

1. Keep the person unaware of what is going on and the changes taking place.

2. Control the person's time and, if possible, physical environment.

3. Create a sense of powerlessness, covert fear, and dependency.

4. Suppress much of the person's old behavior and attitudes.

5. Instill new behavior and attitudes.

6. Put forth a closed system of logic; allow no real input or criticism.

Core to Singer's model is the lack of informed consent, which ensures that cult recruits are put through "a series of steps" orchestrated to change their minds without raising

their suspicion (2003, p. 64). Singer explains that cult recruits are unaware that they will become increasingly committed to and dependent upon the group, eventually finding themselves adapting to a complex system of rewards and punishments which molds their behavior and ends up locking them in a closed system of logic. One use of Singer's model is in assessing the overall strength of a thought-reform program, as the degree to which each of these conditions are present in an environment determines the restrictiveness of the cult and thus the overall effectiveness of the program.

Bounded Choice

Cult expert Janja Lalich proposed her bounded choice framework for understanding cultic environments and the limited autonomy of the true believer (2004). The framework is designed to go beyond rational choice and mind control conceptions by emphasizing how knowledge and power operate in the cult environment. Lalich's bounded choice theory consists of four sociological dimensions present in cultic environments — charismatic authority, the transcendent belief system, systems of control, and systems of influence — which result in personal closure of the follower and four dualistic boundaries which entrap the individual — purpose/commitment, love/fear, duty/guilt, and identification/internalization.

Charismatic authority refers to the emotional bond between the cult leader and their followers (Lalich & Tobias, 2006). The purpose of charismatic authority is to invest the leader with authority and legitimacy while encouraging members to depend upon and identify with the leader (Lalich, 2004; Lalich & Tobias, 2006). The transcendent belief system offers what is claimed to be the only path to salvation — more specifically, it offers a total explanation of the past, present, and future, as well as the steps followers need to take to undergo personal transformation to walk the true path (Lalich & Tobias, 2006). The purpose of the transcendent

ideology is to align the follower's behavior with the group's norms and to offer "meaning and purpose through a moral imperative" (2006, p. 15).

Systems of control involve the rules, regulations, sanctions, strict hierarchy, codes of conduct and other organizational features utilized to control followers' behavior (Lalich, 2004). The purpose of the systems of control is to ensure discipline, compliance, and obedience among followers (Lalich & Tobias, 2006). Systems of influence refer to the mechanisms used to mold the behavior and identity of the followers, including such techniques as peer- and self-monitoring, rejection of the follower's former identity, criticism sessions, and other methods (Lalich, 2004). The purpose of the systems of influence is to induce conformity among followers and get each follower to engage in "self-renunciation," or the "denial of the personal in favor of the group" (Lalich, 2004, p. 235; Lalich & Tobias, 2006, p. 16).

Ultimately, the four interlocking sociological dimensions just discussed result in the true believer experiencing personal closure — that is, they become closed to both the outside world and their inner world, accepting only the group's ideology, and subsequently their capacity for individual choice is hampered (Lalich, 2004). This personal closure can be thought of as a set of internal and external boundaries in four categories: The follower feels a sense of meaning and purpose but must fully commit by submitting themselves totally to the group (purpose/commitment); followers love their leader and gain emotional benefits from being in the group, yet fear the leader's power over them and the group's disapproval (love/fear); the follower engages in group actions out of a sense of duty, actions which may be morally repugnant and therefore are a source of guilt (duty/guilt); and the follower feels complete unity with the cult while simultaneously being unable to reality-check outside the

context of the group, and therefore cannot fathom how life could be like outside of the group (identification/internalization).

Social Influence Model (SIM)

Alan Scheflin developed the Social Influence Model (SIM), a framework for presenting expert testimony on matters related to social influence in court (Scheflin, 2015). Scheflin's article notes that brainwashing is not a legal concept, as there is no tort or crime of brainwashing, and it is not recognized as a legal defense in any jurisdiction. However, the legal concept of undue influence has been proposed by cult experts as an avenue for providing cult survivors a means for seeking redress through the legal system (Hassan & Shah, 2019; Scheflin, 2015). The law has accepted undue influence as a legitimate concept for over 500 years, primarily focused on protecting peoples' finances against con artists, and has its origins in "protecting private wealth from overzealous and predatory religious clerics" (Scheflin, 2015). Thus, the Social Influence Model can be used to prosecute legal cases involving thought reform by reframing it as an issue of undue influence.

The Social Influence Model is organized with the 6 Ws — Who, What, Where, When, Why, and How (Scheflin, 2015):

- Influencer (Who)

- Influencer's Motive (Why)

- Influencer's Methods (What/How)

- Circumstance (Where/When)

- Influencee's Receptivity/Vulnerability (Who)

- Consequences (What)

Expert evidence on the science of mind manipulation can be presented with this framework in a way that is judge-, layperson-, and expert-friendly (Scheflin, 2015). For example, when considering the "Influencer (Who)" aspect, the influencer's relative power and authority over the influencee is an important consideration — for instance, there is a higher potential for undue influence in authority relationships such as that between a priest and a parishioner, or if the influencee is much younger than the influencer (Hassan, 2020a). These and similar considerations can be presented in the context of scientific findings on social influence and the other academic models for thought reform such as the BITE Model to help the courtroom assess whether undue influence has indeed occurred (Hassan, 2020a; Hassan & Shah, 2019; Scheflin, 2015).

Terror, Love and Brainwashing

Alexandra Stein proposed a model for understanding the brainwashing process in her book *Terror, Love & Brainwashing* (2017). Stein's brainwashing model differs from others in the cultic studies field because it emphasizes trauma theory and attachment theory. To illustrate this model, an overview of trauma theory and attachment theory will be provided before discussing the interplay between love and fear that is central to Stein's model.

Trauma occurs when human beings endure or witness terrible events, which include natural disasters, accidents, and atrocities involving violence and abuse (Herman, 2015; Janoff-Bulman, 1992). In general, human beings hold three fundamental assumptions: that the world is a benevolent place; that the world is meaningful (things happen for a reason); and that the self is worthy, good, capable, and moral (Janoff-Bulman, 1992). Janoff-Bulman describes how people rarely question these fundamental assumptions, but powerful information stemming from traumatic experiences (such as war, rape, natural disasters, and

car accidents) shatter these assumptions, resulting in feelings of terror and helplessness. The experience of trauma involves a dynamic fluctuation between feeling safe ("window of tolerance"), being heavily aroused in response to danger ("fight or flight"), and being overwhelmed by extreme danger and terror ("freeze and submit") (International Cultic Studies Association, 2020d). The symptoms of trauma are many, and can include physiological or psychological effects such as anxiety, phobias, depression, despair, rage, physical illness, hyperarousal, intrusive memories, social withdrawal, restriction of behavior, and dissociation – a state of consciousness marked by emotional detachment, numbing, passivity, fragmented memory, and a disconnection between feeling and thinking – among others (Herman, 2015; International Cultic Studies Association, 2020d; Stein, 2017).

Attachment theory postulates that human attachment behavior serves a core survival function — people seek attachment to others to gain protection (Stein, 2017). There are four attachment styles: secure, preoccupied, dismissing, and disorganized. Those who are securely attached have a secure base in the form of an attachment figure which they can predictably turn to when they are threatened. Preoccupied attachment results from having inconsistent attachment figures and is marked by separation anxiety and clinginess. Dismissing attachment is characterized by the avoidance of attachment and not being able to depend on others, resulting from consistent neglect from attachment figures. Disorganized attachment, also called the trauma bond, occurs when the attachment figure is simultaneously the source of comfort and threat — this results in confusion, fear, and dissociation.

The relationship between a cult and its followers is marked by the traumatic, disorganized form of attachment — core to the brainwashing process is the disintegration of the victim's current attachments so that the cult can become the only source of attachment

(Stein, 2017). The supplanting of a person's existing loving relationships with those internal to the cult combined with the cult leader's milieu of terror result in three effects: one, fearful dependency on the group as the person seeks comfort from the source of terror; two, dissociation is induced which results in a suspension of critical thinking and submission to the group; and third, the leader implants their totalist ideology and agenda in the person, turning them into a "hypercredulous and hyperobedient" follower (2017, p. 21). Rather than just being effective on those who already have a disorganized attachment style, brainwashing *induces* disorganized attachment, regardless of a person's starting attachment style — thus, everyone is vulnerable to brainwashing, even those who are securely attached.

Social Contexts Relevant to Thought Reform

Thought reform is a global phenomenon that can manifest in any social context — it can occur in personal relationships, groups, organizations, within whole societies, and even over the internet (Hassan & Shah, 2019). Not all cults are religious — cults can be formed around any theme, including religion, politics, self-improvement programs, meditation, and health fads, among many others (Singer, 2003). Cults can also fall into more than one category — for example, the Unification Church is both religious (Christianity-based) and political (right-wing), and Scientology is a mixture of psychotherapy, commercial, and religious themes (Hassan, 2018). This section will provide an overview of the following major social contexts in which thought reform may be found:

- Religious Cults
- New Age Cults
- Political Cults

- Terrorist Cults

- Totalitarian Regimes

- Commercial Cults and Human Trafficking

- Psychotherapy and Self-Improvement Cults

- Domestic Abuse and Small Cults

- Internet Cults

- Other Relevant Contexts

Religious Cults

Religious cults are themed around major religious traditions and "are the best known and most numerous" type of cult (Hassan, 2018, p. 85). Eastern cults center on beliefs such as "spiritual enlightenment and reincarnation, attaining the Godhead, and nirvana" and utilize existing Eastern-based philosophy and religion such as Hinduism or Buddhism (Lalich & Tobias, 2006, p. 13). Religious cults drawing from the Abrahamic religious traditions such as Judaism, Christianity, and Islam have beliefs that contain themes such as "a god or some higher being, salvation, and the afterlife, sometimes combined with an apocalyptic view" (2006, p. 13). Examples of religious cults include the Unification Church, Church Universal and Triumphant, The Way International, and ISIS, among others (Hassan, 2018).

New Age Cults

New Age cults are themed around a "You are God" philosophy and unlike most other types of cults tend to have female leaders (Lalich & Tobias, 2006, p. 14). Common New Age aspects include crystals, Tarot cards, contact with spiritual beings, astrology, runes, and UFO sightings. Associated with New Age thinking are the Large Group Awareness Training

(LGAT) groups (Singer, 2003) — these will be discussed later under the section covering commercial cults. Perhaps the best known New Age cult was Heaven's Gate, which ended when its 39 followers committed collective suicide in March 1997 (Lalich, 2004).

Political Cults

Political cults are themed around a political ideology (Hassan, 2018). Both right-wing and left-wing cults exist and are "almost identical in behavior" (Open Minds Foundation, n.d.-b). These groups "are fueled by belief in changing society, revolution, overthrowing the perceived enemy or getting rid of evil forces" (Lalich & Tobias, 2006, p. 13). Racial cults, terrorist cults, and totalitarian regimes all share significant overlap with political cults. Examples of political cults include the Democratic Workers Party, the Symbionese Liberation Army, White Aryan Resistance (WAR), and the LaRouche Movement (Hassan, 2018; Singer, 2003).

Terrorist Cults

Terrorist organizations utilize brainwashing and are thus dubbed "terrorist cults" (Banisadr, 2009; Hassan, 2019; Stein, 2017). There is no way to effectively distinguish between a cult and an extremist group — rather, they will both fall somewhere on the same influence continuum (Dubrow-Marshall et al., 2017). Research findings from the cultic studies and terrorism fields have shown great overlap in the function of cultic and extremist groups (Challacombe, 2022; Dubrow-Marshall et al., 2017). Examples of terrorist cults include ISIS (a.k.a. Daesh), Aum Shinrikyo, Al-Qaeda, and the MEK (Mojahedin) (Atack, 2016; Banisadr, 2009; Hassan & Shah, 2019; Lifton, 2000).

Totalitarian Regimes

Totalitarian regimes are a specific type of political cult (Hassan, 2019). They occur

when "terror has achieved state power" (Stein, 2017, p. 6). Thus, totalitarian regimes are

countries that function as destructive cults. Totalitarian movements of the 1900s include Nazi

Germany under Adolf Hitler, Communist China under Mao Zedong, Communist Russia under

Joseph Stalin, and the Khmer Rouge in Cambodia under Pol Pot (Stein, 2017; Taylor, 2004).

Current examples of totalitarian regimes include Kim Jong-un's North Korea (Stein, 2017),

Xi Jinping's Chinese Communist Party (Lifton, 2019), and Vladimir Putin's Russia (Freedom

of Mind Resource Center, 2020c). The most prolific mass murderer in history was Mao

Zedong, who killed up to 70 million people during his reign in China (Atack, 2020).

Commercial Cults and Human Trafficking

Commercial cults come in different varieties, including corporate cults, large group

awareness trainings (LGATs), multi-level marketing (MLM), and human trafficking.

Corporate cults are businesses that operate as cults — a notorious example of a corporate cult

is Enron, a major energy company which went bankrupt in 2001 following a massive scandal

in which they systematically deceived investors by inflating earnings by hundreds of millions

of dollars, ditched their stock to cash out before it crashed, and left their 20,000 employees

with nothing in the aftermath (Fox News, 2017b). Enron's corporate culture had elements of

cultism and coercive persuasion (Tourish et al., 2009), including authoritarian charismatic

leadership, corrupting employees to put the business over ethical values, and a "totalistic

environment was created, in which the penalties for dissent were so severe and well known,

while the benefits of conformity appeared so munificent, that critical voice was almost wholly

absent from the organization's internal discourse" (Tourish & Vatcha, 2006). A more recent

case involving corporate cultism is Cambridge Analytica, an organization that engaged in

psychological warfare work and allegedly had an abusive work environment as described by whistleblower Christopher Wylie in his memoir (2019).

The large group awareness training programs (LGATs) are corporate training programs that use thought reform on their participants instead of teaching them useful skills for the workplace (Singer, 2003). The LGATs often have a New Age philosophy and aim to teach "a new belief system about the universe" which can impinge on employees' rights to freedom of religion (2003, p. 186). The negative impacts LGATs can have on businesses are many, and include increased social friction within businesses between those who have attended training seminars and those who have not; the deception of managers and employees into spending money and time on training programs which offer no real increase in workplace performance or business profit; severe privacy invasions, including sharing and revisiting trauma with a large group without prior informed consent; the infiltration and takeover of businesses by LGATs; and in rare cases, employees have had severe mental breakdowns from the LGAT seminars, with some having been institutionalized in mental hospitals for as long as a decade as a result of their involvement (Singer, 2003). Totalist corporate training programs are not a rarity — according to Jon Atack, "almost every major corporation uses the training methods of… totalist groups" (2016, p. 26). Examples of LGAT programs and organizations include est (now known as Landmark Education), Silva Mind Control, Lifespring, PSI World, Direct Centering, and Actualizations (Hassan, 2018; Singer, 2003).

Multi-level marketing (MLM) firms function as commercial cults (Hassan & Shah, 2019). These organizations offer the majority of their followers false hopes of getting rich since only the top 1% of the cult ends up making money (Hassan, 2018). Hassan notes that these pyramid schemes can result in multiple harms including the victim's bank account being

drained, ruined marriages and relationships with friends and family members, and various psychological harms such as shame, depression, and suicidal thoughts. The MLM industry has received scrutiny by regulators and legal experts in recent years, but the mind control aspects of MLM involvement, including deceptive recruitment and the use of BITE Model control tactics, are often overlooked (Hassan, 2018). Examples of MLM organizations include Amway and Herbalife (Hassan, 2018).

Human trafficking is a specific type of commercial cult, and constitutes enslavement of human beings for labor or for sex (Hassan & Shah, 2019). Forced marriages and illicit organ transplants are also considered human trafficking (Shelley, 2018). The same psychological techniques used to lure people into cults are used by "pedophiles to groom children and to turn people into human trafficking victims" (Hassan, 2018, p. 310). Lifton's theory of thought reform has been identified as an academic model that can help explain human trafficking (International Cultic Studies Association, 2018; 23:41). Human trafficking is a worldwide phenomenon — for instance, there are some 400,000 human trafficking victims in the United States and it has been reported that some 80,000 Uighurs are being trafficked by the Chinese government and forced to work for major companies including Apple and Amazon (Ochab, 2020). A 2019 report estimated that the human trafficking industry is worth $150 billion and there are approximately 25 million victims of human trafficking worldwide (Polaris & National Domestic Workers Alliance).

Psychotherapy and Self-Improvement Cults

Psychotherapy and self-improvement cults center on an ideology of personal transformation and improvement (Lalich & Tobias, 2006). The leader is often portrayed as a "super therapist" or "super life coach" (2006, p. 13). Psychotherapy cults "tend to arise when

legitimate individual or group psychotherapy becomes corrupted, or when opportunistic

nonprofessionals simply deceive and prey upon the unwary" (Singer, 2003, p. 172). Examples

of psychotherapy and self-improvement cults include The Sullivanians, Center for Feeling

Therapy, the Newman Tendency, and NXIVM (Hassan, 2019; Singer, 2003; Stein, 2017).

Domestic Abuse and Small Cults

Domestic abuse is a social context in which brainwashing occurs (Stein, 2017). During

the closing plenary of 2018 International Cultic Studies Association conference, Rod

Dubrow-Marshall showed how Lifton's eight criteria of thought reform apply to domestic

abuse and then remarked that "we've grown to understand that coercion in families, coercion

in relationships exists with the same aspects of psychological control as exists within group

settings" (International Cultic Studies Association, 2018; 21:39). The great similarity between

victims of coercive control in relationships and victims of imprisonment, torture, and

brainwashing in other social contexts has been recognized by domestic abuse scholars for

decades (Stark, 2007). Despite the widespread academic recognition of coercive control in

intimate relationships, most state laws in America only focus on the physical violence

component of domestic abuse (Ortiz, 2018).

Domestic abuse is just one type of small cult, which are cults where one leader

controls as few as one or two dependent followers (Stein, 2017). Variations on small cults

include: family cults, where one family member coerces the rest of the family; no-name cults,

which are small groups of less than a dozen people who follow a cult leader; and the one-on-

one cult, where exactly one person controls one victim (Lalich & Tobias, 2006). Lalich and

Tobias note that small cults can form in various social contexts, including: within marriages

or intimate relationships; between bosses and their employees; between pastors or priests and

their parishioners; between parents and their children; between therapists and their clients; between jailers and their prisoners; between interrogators and their suspects; between teachers and their students; within gangs; within fraternities and sororities; and in other special interest groups such as between martial arts or yoga masters and their students.

Internet Cults

With wide adoption of the World Wide Web has come innovations in thought reform techniques. Mental predators no longer need to send victims to "rural workshop retreats" to isolate and radicalize them — they can now use online discussion boards, social media platforms, and videos (Hassan & Shah, 2019). A major online conspiracy theory movement that cult experts have been discussing in recent years is QAnon (Bernstein, 2020d; Hassan, 2020b; Langone, 2021b). The QAnon movement believes that Donald Trump is fighting against a group of Satan-worshipping pedophile elites and has been associated with violence including murder and attempted kidnapping (Sen & Zadrozny, 2020). Estimates of the number of QAnon followers have ranged from 14,000 active Twitter accounts in 2020 (Langone, 2021b) to upwards of "tens of millions of Americans" in February 2021 (60 Minutes, 2021, 0:11). Although there is a general lack of research about the QAnon phenomenon, Langone observed that "we do know that thousands of QAnon adherents have been harmed psychologically and/or in their relationships with loved ones" and that "compelling anecdotal accounts of harms resemble what we see among cult victims" (Langone, 2021b, p. 2). Another example of an internet cult is Men Going Their Own Way (MGTOW) (Bernstein, 2020c).

Other Social Contexts Relevant to Thought Reform

Many other social contexts are relevant to the study of thought reform, of which a handful are outlined below. Major categories of cults not covered in the previous sections include: racial cults; occult, witchcraft, black-magic and satanist cults; UFO or flying saucer cults; and personality cults that center on a singular charismatic personality (Lalich & Tobias, 2006; Singer, 2003). Gangs and pedophile grooming rings use mind control tactics (Hassan & Shah, 2019). Atack suggests that "old boy networks" and secret societies are a type of cult (2016, p. 35). Another commentator has suggested that dysfunctional families can have cultic elements (Aguado, 2018).

A Canadian high school teacher indoctrinated his students into Nazism — one of his students had to be taken to the Dachau concentration camp in southern Germany before he was able to accept that the Holocaust had actually happened (Taylor, 2004). A residence life program themed around "sustainability" at the University of Delaware used thought reform on students (Foundation for Individual Rights in Education, 2009; Kissel, 2009). These two cases illustrate that education institutions in liberal democracies are not immune to the threat of thought reform.

Thought-reform techniques are also known to be used in certain facilities associated with the troubled teen industry in the United States (Bernstein, 2020a, 2020b). Cult expert Steven Hassan noted similarities between cult control methods and Meghan Markle's experience being denied access to mental health services while she was a resident member of the Royal Family in the United Kingdom (Hassan, 2021a). Steven Hassan has noted that the phenomenon of cancel culture as a social phenomenon is "straight out of the brainwashing, thought reform, cult playbook" as it reflects the demand for purity and dispensing of existence thought-reform themes (Steven Hassan, 2020).

Prevalence of Thought Reform

Thought reform is far from being a marginal occurrence in the world — Margaret Singer stated that "cults are not at the fringe but at the very heart of our society" (Atack, 2016, p. 13). Although thought reform and cults are known in the cultic studies field to be widespread in America and the rest of the world, measuring their exact prevalence is challenging. Factors that contribute to this difficulty are the lack of governmental oversight, cults lying about their membership counts, and the unknown number of small cults of only a few people (Singer, 2003). Other difficulties include the potential for groups to change over time or have different practices in different geographies, and for the same group to use various different names to avoid scrutiny and rejection (Almendros et al., 2011). Adding to this uncertainty of the true extent of the problem is that the subject of thought reform as a whole is chronically under-researched, with Atack calling it an "almost neglected subject" (2016, p. 14).

Prevalence of Thought Reform around the World

A conservative estimate of the number of worldwide thought-reform victims is 800 million people — approximately 10% of all human beings (Open Minds Foundation, n.d.-c). Atack has written that "hundreds of millions of people have given their allegiance to fanatical groups" (2016). Globally, there are an estimated 20 million victims of labor trafficking and 4.8 million victims of sex trafficking (Murray, 2021). One expert has suggested that the cult problem is getting worse due to a lack of legal protections, stating that "destructive cult groups continue to grow more numerous and powerful, operating with virtual free license to enslave people" (Hassan, 2018, p. 105). However, the exact number of thought-reform victims is unknown.

Prevalence of Thought Reform in the United States

One cult expert stated that there are currently between 10,000 and 50,000 "cultic groups" in the United States, with the majority being "very small" (International Cultic Studies Association, 2020a, 1:09:34). A more conservative estimate is that there are "more than five thousand destructive cults" in the United States (Hassan, 2019, p. 4). Human trafficking is widespread in America — there are an estimated 400,000 modern slaves in the United States (Murray, 2021). Cults have thrived for decades in America (Hassan, 2018; Singer, 2003). As these groups often begin in the United States and then seek to expand themselves into other countries, Margaret Singer remarked in a 1994 video that "some of the countries overseas regard cults as among our [America's] least desirable exports" (International Cultic Studies Association, 2014c, 6:06).

Impact of Thought Reform

Thought reform may be the most profound security and privacy threat to the human being, and by extension, to all of human society. It is the ultimate cause of devastating financial, emotional and physical destruction in many different social contexts (Open Minds Foundation, n.d.-e). This section will outline the various impacts of thought reform, including how it is associated with psychological, emotional, physical, sexual, financial, and social abuse, in addition to discussing its impact on society and children. Issues related to cult intimidation and censorship as well as the beneficial impacts of thought reform are also discussed.

Psychological and Emotional Impacts of Thought Reform

The potential psychological and emotional impacts of thought reform are many —

however, each person's experience in a cult is unique and former members' experiences can

range from leaving apparently unscathed to being psychologically damaged for years (Lalich

& Tobias, 2006). After being deceptively recruited into a cult, a person adopts an externally

imposed pseudoidentity and their authentic identity is inhibited (Hassan, 2018). The process

of reclaiming and redefining one's identity is always a part of post-cult recovery (Lalich &

Tobias, 2006). A person's autonomy is greatly reduced while they are within the abusive

environment — they are often unable to make important life decisions independently, and this

control may extend to minor life decisions as well (Hassan, 2018).

Cognitive issues faced by former cult members include an inability to concentrate,

memory problems, difficultly making decisions, and the tendency to spiritualize everything or

think in terms of black and white (Hassan, 2018; International Cultic Studies Association,

n.d.-a). Due to the loaded language used in thought-reform environments, part of the cult

recovery process involves learning or relearning the actual definitions for the words and

phrases that were used to manipulate reality in the cult (Hassan, 2018). Cultic groups may

implant false memories and distort their followers' personal histories such as convincing the

follower that their parents have wronged them or that trying marijuana once constitutes a drug

addiction (Singer, 2003).

Multiple studies suggest that former cult members experience clinically significant

stress more than both the general population and former members of noncult groups (between

33% and 100% of the former and between 5% and 27% of the latter) (Goldberg et al., 2017,

pp. 430-431). There is evidence to suggest that those who were born and raised in their cult

tend to experience higher levels of distress than those who were deceptively recruited

(Giambalvo et al., n.d.). Other emotional and psychological effects of cult involvement can include: anxiety; distrust; feeling betrayed and abused; depression; guilt; grief; anger; feeling alienated, isolated, or without a sense of purpose; fear of something bad happening (a side effect of phobia indoctrination); low self-esteem; embarrassment; trauma, dissociation; flashbacks; floating (spacing out and going back to the cult mindset); nightmares; and problems related to the family, sexuality, dependency, and spirituality (International Cultic Studies Association, n.d.-a; Lalich & Tobias, 2006). Current and former cult members may also have suicidal ideation, attempt suicide, or commit suicide — for instance, dozens of people who grew up in the Children of God cult (a.k.a. The Family) have committed suicide (Lalich & Tobias, 2006; Stein, 2017).

Thought-reform programs can also induce a variety of psychopathologies, including post-traumatic stress disorder (PTSD), atypical dissociative disorders, psychosis, and phobias, among others (Lalich & Tobias, 2006; Singer & Ofshe, 1990). Due to the lack of awareness of cults and thought reform among mental health professionals, victims of cults do not usually receive adequate counselling and are instead misdiagnosed and put on medication (Hassan & Shah, 2019). This lack of awareness has resulted in documented harms to cult survivors who have sought therapy from unaware mental health professionals, including victim blaming, encouragement to stay in the cult, and the prolongment of recovery (Lalich & Tobias, 2006).

Physical and Sexual Impacts of Thought Reform

Lalich and Tobias commented that "physical cruelty and sexual abuse are widespread in cultic milieus" (2006, p. 180). Physical abuse can include sporadic violence, orchestrated punishments, and violence that is incorporated into rituals. Violence or the threat of violence may be used to induce trauma, fear, and altered states of consciousness and serves as a control

mechanism. Beatings, rape, and having to work 15 to 18 hours a day for years with little or no compensation are examples of the physical abuse suffered by some cult members (Hassan, 2018). Faith-based rejection of medical interventions, general medical and hygiene neglect, and inadequate diets are also known to be prevalent in thought-reform environments (Hassan, 2018; Lalich & Tobias, 2006). Examples of extreme forms of cultic violence have included beating children to death, murdering dissident members or nonmembers, acts of terrorism such as the Aum Shinrikyo sarin gas attacks, and the many mass murder-suicides that have occurred over the decades (Singer, 2003). Both the attempted assassination of former house speaker Nancy Pelosi's husband and the thwarted 2022 coup to overthrow the German government had a QAnon connection (Anglesey, 2022; NBC News, 2022), illustrating how internet cults can fuel violence and threaten national security.

Sexual abuse takes many forms in cults, such as unwanted touching, rape, coerced sex framed as an "honor" or "spiritually beneficial," sex as a test of loyalty, female subservience, sex under the guise of therapy, drug-induced sex, ritual sex, prostitution, and pornography (Lalich & Tobias, 2006, p. 183). Cult members may be conditioned to feel guilty, evil, and sinful for feeling sexual attraction towards other human beings (Hassan & Shah, 2019). Other forms of sexual control that may be found in thought-reform environments include: enforced celibacy; enforced promiscuity; polygamy; orgies; pedophilia; arranged relationships and marriages; forced abortions; castration; and the banning of abortion and contraceptives (Stein, 2017). One impromptu post-cult recovery workshop from 1993 suggested that as many as 40% of female cult survivors were victims of sexual abuse while in their destructive groups (Lalich & Tobias, 2006).

Financial Impacts of Thought Reform

The financial impact of thought reform can be devastating — after being deceptively recruited into a cult, a possible outcome is that the victim will give up large sums of money or even their entire life savings to the abusive group (Hassan, 2018; Singer, 2003). Certain cults are known to leave former members "saddled with debt for the rest of their lives" (Atack, 2016, p. 33). Atack notes that it is typical for cult members to work 90-hour work weeks with little pay. Multi-level marketing scams are a type of cult that hold out the promise of getting rich but instead extract money from the majority of people who get involved (Hassan, 2018). One dissertation study demonstrated a strong correlation between former cult members' perceived need for vocational rehabilitation services and the length of their cult involvement with a perceived negative impact on their career development and employment, illustrating how cult involvement can make it harder for some people to enter the workforce and develop their career (Whitlatch, 2009).

Social Impacts of Thought Reform

The cult experience has various different social impacts on individuals. Cults are known to tear apart families, replacing their victims' existing familial relationships with the cult and its leader unless the family members can also be drawn into the group (Singer, 2003; Stein, 2017). Cult involvement can ruin marriages and a person may divorce their partner that was ordained by their cult because they did not freely choose their partner (Singer, 2003). Other social difficulties noted by Singer that are related to prior cult involvement include: feelings of alienation (*anomie*); profound loneliness after being cut off from all of one's friends and family left behind in the cult; problems with dating and sexuality; constriction of social contacts; monitoring by family and friends watching for signs that the former member may go back to the cult (the "fishbowl" effect); problems with expressing and having

opinions; fear of rejection for having been in a cult; problems with trusting others; and the fear of joining groups and making commitments to other people.

One particularly prominent social impact of thought reform is that of victim blaming and shaming. Stein commented that victims of cults and totalitarianism "are demonized" (2017, p. 2). Stein mentions that battered women, former cult members, child sexual abuse victims, and Holocaust survivors have all been the target of blame and shame for the abuse they suffered. Some academics have called former cult members various epithets including "bitter apostates, disgruntled, defectors, disloyal, and turncoats" and have strove to prevent former members' personal accounts from entering the academic literature or being told in the courts (Kent & Swanson, 2017; Singer, 2003). In addition to the shunning of former cult members by the broader society, destructive groups may also ostracize former members and critics, with Atack commenting that "ostracism is a benchmark of totalism" (2016, p. 36).

Thought reform has a profound impact on privacy — Taylor declared that "brainwashing is the ultimate invasion of privacy" (2004, p. ix). The denial of privacy has long been mentioned in the cult and totalitarianism literature (Arendt, 1958; Hassan, 2018; Lalich & Tobias, 2006; Lifton, 1989; Stein, 2017). Cult members may be expected to confess all of their private thoughts, expose themselves completely to their group, and ultimately have no private life outside the group (Lifton, 2019; Stein, 2017). Examples of privacy harms suffered by cult members include the repeated violation of personal boundaries (Lalich & Tobias, 2006), domestic abusers installing spyware on their victims' phones (Levy & Schneier, 2020), and blackmail (Hassan, 2018; Lalich & Tobias, 2006). One survivor of the Albanian communist regime stated that "trying to become what he should have been

according to ideology left man not knowing his own self, since he was unable to create an interiority in the privacy of his mind" (Lubonja, 2001).

Societal Impacts of Thought Reform

Over the past several decades, prominent cult experts have likened the cult problem to an epidemic and a serious public health crisis that continues to grow worse (Hassan, 2018; West, 1990). The financial costs related to thought reform are estimated to be in the hundreds of billions of dollars, including: healthcare and legal costs supporting abuse victims; law enforcement time investigating incidents related to coercion; tax evasion; and tax breaks for abusive organizations under false pretenses (Open Minds Foundation, n.d.-e). The Open Minds Foundation states that "ultimately, society absorbs the financial and emotional costs of coerced victims dealing with after-effects of mass shootings, terrorist attacks, and the unnecessary injury or loss of life" (Open Minds Foundation, n.d.-e, p. 5). Cults rob millions of people of the opportunity to live normal lives, resulting in people slaving towards "warped totalitarian visions" rather than contributing to society by becoming doctors, teachers, or otherwise realizing their authentic talents and ambitions (Hassan, 2018, p. 105). Destructive cults seek to introduce authoritarianism into democracies, resulting in the gradual disintegration of civil liberties and human rights (Hassan, 2018; Singer, 2003). Cultism's potential to instigate the destruction of all human beings, such as through nuclear war or climate catastrophe (Lifton, 2019), illustrates how it poses a profound security threat to the entire human species.

Child Abuse in Thought-Reform Environments

The cult environment can be harrowing for children born or raised in the group (Lalich & Tobias, 2006). Child abuse and neglect is widespread in thought-reform environments and is one of its most devastating aspects (Hassan, 2018; Singer, 2003; Stein, 2017). Children in cults may be denied any education or receive an inferior education (Hassan, 2018). Other aspects of child neglect in cult environments can include lack of basic health care like dental work or glasses, drug abuse, social isolation, unhealthy or deficient diets, and sleep deprivation, among others (Singer, 2003). Forms of child abuse that have been reported in cults include prostitution, rape, incest, pornography, and the "cult-related deaths" of children (Lalich & Tobias, 2006, p. 249). Due to the closed and secret nature of totalitarian systems, the suffering of children in cults is often invisible and goes undetected by the outside world (Stein, 2017). Stein notes that former members who were born or raised in a cult as children often self-harm or commit suicide when they do not get the support they need.

Children and teenagers were subjected to various forms of abuse at Jonestown, including being beaten, paddled and whacked, forced into boxing matches, forced to eat hot peppers or have hot peppers inserted in their rectums, forced to labor, and being threatened with exile in the jungle (Kent, 2010). Some of the children at Jonestown were put into pits at night and told that the pits were full of snakes (Hassan, 2018). Some cults do not register children at birth, resulting in the death and burial of children on cult property without the outside world knowing they existed (Hassan, 2018). Groups such as the Catholic Church and the Jehovah's Witnesses have worked to conceal widespread child sexual abuse within their organizations (Atack, 2016; Skene et al., 2023). Other groups "subject children to sexual abuse as a matter of doctrine" (Hassan, 2018, p. 104). Terrorist cults may take this a step further by indoctrinating children to become killers and rapists, such as the estimated 20,000

boys and girls press-ganged into Joseph Kony's Lord's Resistance Army (Stein, 2017).

Thought-reform groups such as the Newman Tendency, Scientology, and North Korea have

mandated forced abortions (Stein, 2017).

Children who are raised under conditions of coercive control in domestic violence are

hampered in their development of resiliency and social skills (Katz, 2016). Stein commented

that totalist leaders disrupting the natural bond between children and their biological parents is

"one of the most shocking and damaging elements of cultic or totalitarian systems" (2017, p.

99). Cults often raise children communally and condition them to form attachment

relationships with the leader or whole group instead of with their biological parents (Hassan,

2018; Stein, 2017). If parents do have contact with their children, the contact is heavily

monitored and dictated by the cult; when parents leave their cult, sometimes the cult prevents

them from taking their children with them (Stein, 2017).

Cult Intimidation and Censorship of Researchers and Activists

Certain cults actively intimidate and censor cult activists, researchers, and

professionals to avoid accountability and keep the public vulnerable to thought reform

(Hassan, 2018; Singer, 2003). A common method for silencing criticism is to weaponize the

legal system through false accusations and filing lawsuits designed to destroy opponents

(Singer, 2003). According to Margaret Singer, the intimidation and harassment of critics is

"one particularly disturbing aspect of the cult world" and that "defending himself or herself

against the false accusations made by some of these cults can break the ordinary person"

(2003, pp. XXVII-XXVIII, 220).

The methods cults use to evade accountability, silence critics, and preserve their

power are many. Cults are known to prevent critical articles from being published in

newspapers, magazines, and even peer-reviewed journal outlets through legal intimidation and lawsuits, preventing the public from being informed about these destructive groups (Singer, 2003). Singer gives many examples of the harassment and threats targeting those who oppose cults: constant intrusive phone calls; neighbors, relatives and friends being told lies about the cult critic; offices broken into and research materials stolen; dead rats being put on doorsteps; live rats being released in houses; rummaging through the target's trash; cult members disrupting lectures; and even an attempted murder by rattlesnake by the Synanon cult. An example that illustrates how extreme this intimidation can be is the case of Jon Atack, a former Scientologist and critic who withstood daily harassment for 12 years, investigations by private investigators, having his private confessions published, propaganda leaflets designed to tarnish his reputation disseminated to thousands of houses, going bankrupt from repeated litigation brought by the cult, and false accusations of child abuse, attempted murder, rape, and being a drug dealer and addict (Hassan, 2018). Some cults murder their opponents, such as when Aum Shinrikyo killed as many as 80 suspect cult members and critics (Lifton, 2000, p. 38).

Beneficial Aspects of Thought Reform

Despite the negative aspects of thought reform, those who undergo it may also experience positive outcomes from the experience (Goldberg et al., 2017; Langone, 1993). Focusing on the positive aspects of cult involvement can be a coping mechanism for former members (Goldberg et al., 2017). Positive impacts of cult involvement can include: overcoming extreme shyness; learning valuable job skills, work discipline, and teamwork; a sense of pride in having been pushed to one's limits to achieve a goal; and becoming more outgoing and self-confident — these outcomes are associated with having endured extreme

social and labor demands that cults often impose on their followers (Langone, 1993). Lalich

and Tobias have noted that former cult members are likely "to be more hardworking, more

dependable, and more honest than many other employees" (Lalich & Tobias, 2006, p. 177). A

silver lining of thought reform is that former cult members can share their survivor stories to

help rescue others and prevent similar tragedies (Hassan, 2018).

Lifton noted that "… even the most full-blown totalist milieu can provide (more or

less despite itself) a valuable and enlarging life experience–*if* the individual exposed has both

the opportunity to leave the extreme environment and the inner capacity to absorb and make

inner use of totalist pressures" (Lifton, 2019, p. 90). Additionally, ideological totalism has the

potential to bring about peak experiences in an individual, "a sense of transcending all that is

ordinary and prosaic, of being freed from the encumbrances of human ambivalence, of

entering a sphere of truth, reality, trust, and sincerity beyond any he had ever known or even

imagined" (2019, pp. 90-91). Hassan stated that escaping a cult "is a chance to start your life

all over again" (2018, p. 226). Thus, despite the potential for destructiveness, undergoing

thought reform may be a pivotal beneficial experience in a person's life.

Section Summary

This section of the literature review provided a broad overview of the phenomenon of

thought reform. It discussed foundational concepts for understanding thought reform;

historical and recent events related to the issue; eight of the academic models for thought

reform; the various different social contexts in which thought reform takes place; the

prevalence of the threat in the United States and around the world; and the different impacts

thought reform has on individuals and societies. Despite the profound destructive potential of

thought reform, there are many known defenses against it, which are discussed in the next section.

Section 3: Defense Against Thought Reform

As previously discussed, the brain is a computer that can be hacked by cult leaders, cult recruitment is a type of scam, and brainwashing is an extreme form of social engineering and privacy invasion. Thus, cybersecurity and privacy professionals have much to offer in defending human beings against thought reform. These two stakeholder groups can contribute to combating thought reform by identifying, implementing, researching, promoting, and improving defensive controls that protect people against psychological exploitation. This section of the literature review will discuss the defensive controls for combating thought reform and the known vulnerability factors that make societies and individuals susceptible to thought reform.

Societal Vulnerability Factors and Defense

The current societal response to the thought-reform problem is minimal and ineffective. Atack commented that "there is no protection whatsoever for those who have given their all to an abusive totalist group" (2016, p. 161). The mental health profession and governments do not address thought reform in a systematic manner despite the profound harm happening to millions of people around the world (Hassan, 2018). In America, people have more legal protections against sales tactics on a used-car lot than they do against mind control (Hassan, 2018). Likewise, there are no laws protecting American citizens against psychological warfare operations that are being waged on them by former members of the United States Intelligence Community (tedxmidatlantic, 2020, 1:11:23). There are no

established training programs for preparing mental health professionals to adequately counsel those who have been radicalized (Ingber, 2021).

A major vulnerability factor is when a society is undergoing rapid change, such as from war, natural disaster, socioeconomic difficulties, or social upheavals — the widespread uncertainty, isolation, and *anomie* leave people more vulnerable to charismatic and authoritarian leaders (Singer, 2003; Stein, 2017). Recent societal risk factors in America include a chronic lack of sleep in the population, information overload, the rise of social media and celebrity culture, and the breakdown of trust between individuals and institutions (Hassan, 2019). As discussed earlier, the COVID-19 pandemic had a destabilizing effect on society, increasing vulnerability to cultism.

Cultism can be characterized as a societal reaction to protean uncertainty, with Lifton describing the relation as "the totalistic or fundamentalist response is a reaction to proteanism and to the fear of chaos" (2019, p. 182). A contemporary dilemma for the human species is resolving how to embrace the proteanism of turbulent and disruptive historical forces without society devolving into destructive cultism — constructively embracing proteanism can serve as an alternative to cultism and as "a path for the species" that can protect the society from cultism (2019, p. 187). Thus, the promotion and adoption of proteanism within society serves as a security control against thought reform.

Scholars and experts have long advocated for stronger legal protections and widespread education about thought reform and cults. In a 1994 video, Singer suggested that effective societal countermeasures to the cult problem would be to use the legal system to punish illegal cult-related conduct as well as providing widespread psychoeducation about thought reform and cult recruitment, including teaching critical thinking, reasoning, and how

to detect faulty logic (International Cultic Studies Association, 2014c). She also emphasized that "the myth of the invulnerable mind… needs to be exposed over and over if we are to prevent Orwell's vision of 1984 from coming true at any time" (2003, p. 54). Others have suggested that societies should take a public health approach to the cult problem, modeling education efforts on those used to combat issues like safe-sex education and anti-tobacco education (Stein, 2017; West, 1990). A recent trend in the literature is scholars advocating for stronger legal protections for cult victims and the utilization of existing undue influence law to address the thought-reform problem in society (Hassan, 2020a; Hassan & Shah, 2019; Scheflin, 2015).

With regard to societal defense, Lifton has emphasized combating "malignant normality," which is "a norm of destructive or violent behavior, so that such behavior is expected or required of people" with an example being when doctors were conditioned to help carry out the extermination of Jews in Nazi Germany (2019, p. 189). There are multiple ways to combat the normalization of destructiveness, including professionals bearing witness to the malignant normality and actively exposing it, which Lifton calls the act of being "witnessing professionals" (2019, p. 190). For witnessing professionals, the combination of scholarship with activism is crucial, as activism provides scholarship its purpose and scholarship helps inform effective and truth-based activism (Freedom of Mind Resource Center, 2020b, 7:17). More generally, a focus on "living in truth" can help combat the systematic falsehood characteristic of malignant normality (Lifton, 2019, p. 190), which involves having to "recognize the assault on truth and then transcend it, with truth, in a nitty-gritty systematic way at all levels of society" (Freedom of Mind Resource Center, 2020d, 28:49).

Cult experts and scholars have been critical of the societal response to terrorism. Hassan suggests that societies should help terrorists reclaim their authentic identity and then have them spread awareness on how they were radicalized to help inoculate others from meeting the same fate (2013). A cult scholar and former member of a terrorist cult observed that the passage of laws such as the Patriot Act and the obsession with terrorism in the media "creates an atmosphere of hate, disgust, and fear toward not only terrorists, but even against the minority groups that the terrorists might belong to" that exacerbates terrorism by further isolating those who need help (Banisadr, 2009). Atack and other cult experts experienced dismissal from authorities when trying to change policy around Islamic extremism, even though thought-reform theory provides a relevant framework for explaining how radicalization works (2016). Atack argues that governments spend billions of dollars on the War on Terror, but they do not provide education about thought reform that would help prevent people from being recruited by terrorist groups in the first place.

There have been many other societal defensive measures that have been proposed. The desire to belong is a universal human need so "open, flexible and responsive social supports" and healthy communities can help people avoid unhealthy group affiliations when they are seeking connection during times of great uncertainty (Stein, 2017, p. 203). Stein notes that since brainwashing is marked by disorganized attachment, promoting secure attachment in society (e.g., interventions to protect children who live in abusive environments) can help address the thought-reform problem. She also stresses that telling the truth about atrocities and traumatic events such as The Holocaust, as well as rejecting denial of these accounts, is crucial for healing trauma and destigmatizing cultic abuse. Human rights were established following the atrocities of World War II and the act of upholding them is crucial as

totalitarian movements around the world continue to proliferate (Hassan, 2018; Stein, 2017).

Protections for investigative journalists are important because they expose the abuses of

totalitarian movements and this truth is what helps protect society (Hassan, 2019). Related to

this is the need for democratic institutions to be opposed to cultism (Freedom of Mind

Resource Center, 2020d, 38:43).

Authorities can closely monitor for abuses occurring in closed and secretive groups

and hold people accountable for harms done to people (Stein, 2017). Laws to protect the

privacy of personal data are needed to prevent mental predators from exploiting that data for

thought reform (Hassan, 2020a). More societal defensive controls include recognition of the

extent and nature of the cult problem, religious outreach programs, the restoration of family

values, and health risk factor reviews for all organizations (which cults would fail) (West,

1990). West describes actions that society can take to put pressure on destructive cults: legally

requiring fully informed consent about the implications of membership or participation for

services of every type; accounting for the funding of organizations that purport to be

charitable to detect inappropriate uses of money such as the purchase of firearms or the

leaders buying yachts; allowing the temporary removal of people from organizations for

objective review when there are health concerns; and suing for damages under undue

influence law to discourage cultic abuse. Societies can establish and maintain social structures

to enable the rescue of current cult members as well as allow the counseling and rehabilitation

of former members (West, 1990). Former cult members can help protect society by sharing

their experiences with others, since "they are role models who show us how to move on after

life inside a cult or destructive relationship" (Hassan, 2019, p. 216).

Taylor summarized defense against brainwashing in her acronym FACET —

Freedom, Agency, Complexity, Ends-not-means, and Thinking (2004, p. 261). This involves

"extolling freedom and the power of human agency, the notion that humans are ends in

themselves and never just means, the value of learning to think and analyse information

effectively, and the irreducible, irrepressible complexity of both human experience and the

ideas we value." Implementing FACET requires "open debate, public trust in specialists and

authorities, and mechanisms-such as a free and independent press and judiciary-for

maintaining trust, enforcing openness, and limiting the drift towards absolute authority so

tempting for many governments" (2004, p. 265). Taylor mentions that these FACET ideas are

typical values in liberal democracies, but they are never perfectly implemented nor absolutely

secure against totalitarian influences. A drift towards authoritarianism within democracies,

however, is not inevitable as thought reform has its limits, because it is not currently possible

to completely control another person's reality (Lifton, 2019).

Individual Vulnerability Factors and Defense

For decades, researchers have found that there is no typical "personality profile" or

"vulnerability profile" for people who are recruited by cults or terrorist groups (Stein, 2017, p.

60). Rather, a person's susceptibility to thought reform is predominantly based on situational

factors (Singer, 2003; Stein, 2017), with one expert quipping that the best explanation for how

people end up in cults is "it's bad luck" (International Cultic Studies Association, 2020a,

46:34). Unintuitively, most of those recruited by cults are "normal people with ordinary

backgrounds," with many of them being intelligent people and people who have professional

licenses or college degrees (Hassan, 2018, p. 39; Singer, 2003). Although there is variation in

how susceptible individuals are, *everyone* is vulnerable to cult recruitment given the right set of circumstances (Singer, 2003).

Cult experts and scholars emphasize that anyone can be victimized by a cult, that no one is invulnerable to thought reform, and that accepting one's own vulnerability is crucial for self-defense (Atack, 2016; Hassan, 2018; Singer, 2003; Stein, 2017). Experts suggest that confidently assuming invulnerability to brainwashing is a devastating risk factor for succumbing to psychological manipulation, with Atack commenting that "it is confidence in our invulnerability that makes us so vulnerable" (2016, p. 19). Cults are known to leverage peoples' belief in their immunity to brainwashing when recruiting them (Hassan, 2018). Humility may be the most important defensive control, as suggested by Dr. Hassan in one discussion with a QAnon expert: "most people will say 'I'm too smart, it would never happen to me, only dumb people get into cults,' and those are the most vulnerable people… the people who think they're immune or invulnerable to it" (Freedom of Mind Resource Center, 2019, 44:00).

All human beings go through developmentally normal moments of vulnerability in their lives and it is these moments of vulnerability that cults take advantage of when targeting people for recruitment (Hassan, 2018; Singer, 2003; Stein, 2017). Singer observed from her clinical experience that the two factors that make people particularly vulnerable to the lure of a cult are "being depressed and being in between important affiliations" (2003, p. 20). Common situations people find themselves in prior to cult recruitment include recently moving to attend university, going through a divorce or a breakup, going through a death in the family, or a change of job or housing (Stein, 2017). For example, while attending college, Hassan was deceptively recruited by the Unification Church in 1974 after being dumped by

his girlfriend (Hassan, 2018). Other situational vulnerabilities that Singer observed included the recruit's belief system being destabilized, such as after taking nihilistic high school or university courses; not being engaged with a job, a relationship, or an education or training program; going through a period of great uncertainty, such as not knowing what to do with one's life; feeling overwhelmed and confused about societal realities such as senseless violence and the instability of the job market; loneliness; and mild or moderate depression, among other situational risk factors (2003).

A crucial defensive control for protecting people against thought reform is education and awareness about the matter (Atack, 2016; Hassan, 2018; Lalich & Tobias, 2006; Langone, 1993; Lifton, 2019; Singer, 2003; Stein, 2017). A lack of knowledge or awareness about thought reform is a profound risk factor for individuals, with one scholar stating that "ignorance of the ways in which groups can manipulate individuals is a relatively general characteristic of cult victims -- until it is too late" (West, 1990). Education about cult mind control helps inoculate peoples' minds against the threat, and is far easier than trying to reactively help people leave cults (Hassan, 2018). Atack suggests that this education should extend to critical thinking, assertiveness, and to influence techniques more generally, including those used in advertising, marketing, sales, recruitment, and other social contexts (2016). Importantly, cults should not be studied only by psychologists, but also by "ordinary citizens who care about their freedom" because they need to "be taught countermeasures in order to avoid being exploited by such groups" (Singer, 2003, p. 83). In other words, security controls for the mind must be available to all and embedded into the culture of an open and free society.

Various other individual vulnerability factors have been discussed in the thought-reform literature. People who have disorganized, dismissing or preoccupied attachment styles may be more vulnerable to abuse than those who are securely attached (Stein, 2017). Another risk factor Stein identified is the act of victim blaming, as it perpetuates a false sense of security in the blamer, preventing them from grasping how abuse works and thus reducing their ability to defend themselves adequately. Cults typically try to recruit the most valuable people they can, so being a more attractive mark than the average person — such as being intelligent, influential, wealthy, a professional, or educated — is a risk factor (Hassan, 2018). Adolescents are particularly vulnerable to the lure of cults due to factors like *anomie*, lack of purpose in life, frustration, hopelessness, being in a stage of life crucial for establishing human relationship patterns, and a lack of maturity and experience in telling fantasy from reality (Maté et al., 2009). Naïve idealism, dependency, disillusionment, or being of "an excessively trusting nature" are also predisposing individual risk factors (West, 1990).

Research studies suggest a link between Dependent Personality Disorder and involvement with cults (Burke, 2006). A handful of studies have found evidence that those who are dependency-prone are more likely to be recruited into a cult (Ash, 1985), although the relation may also flow in the reverse direction (those who are recruited become more prone to dependency) (Burke, 2006). A study of a sample of 111 ex-cult clients of residential treatment at the Wellspring Retreat and Resource Center found significant evidence of Dependent Personality Disorder traits as measured by the Millon Clinical Multiaxial Inventory (MCMI-1) (Martin et al., 1992). However, the study also reported an unusually quick drop in dependent symptoms resulting from clinical intervention; from a subset of 66 of these clients, 37 (56.1%) scored the highest or second highest on the Dependent scale before

intervention, but this number dropped to 17 (25.8%) after only 10-14 days of treatment. The authors hypothesized that much of the dependency among the clients was artificially induced, which explained why the dependent traits were unusually amenable to treatment, as there would not have been such a sharp drop if dependency was instead an innate trait in all the clients. These findings suggest that much of the link between Dependent Personality Disorder and cult involvement may result from cultic environments *causing* people to present with dependent symptoms rather than only the already dependent-prone being the ones recruited. These findings together suggest that cults exploit existing dependent vulnerability or artificially induce it, depending on the victim.

Many individual psychological security controls beyond humility and education have been proposed by thought-reform experts. Protecting the privacy of one's personal information is important because cults are known to invade privacy as part of their recruitment and retention strategies (Hassan, 2018). For instance, the LaRouche cult has used obituary columns to target grieving widows and widowers (Atack, 2016, p. 27), and Jim Jones had his followers surreptitiously obtain the medical information of potential recruits for use in staged mystical experiences where Jones would pretend to receive their medical information in a vision, thus convincing people he had supernatural powers (Singer, 2003, p. 162). Another example is how confession is weaponized in thought-reform environments, with leaders using it to expose and then exploit their followers' weaknesses (Langone, 1993). Hassan recommends not giving out one's phone number, email address, or physical address to a recruiter until being confident that they are not a cult recruiter, since cults will utilize contact information to apply strong social pressure that many people will succumb to (Hassan, 2018).

Critical thinking is yet another individual defensive control, since developing and maintaining rationality is necessary to avoid having one's emotions exploited (Atack, 2016). An example of exercising critical thinking in a potentially dangerous social situation would be to ask probing questions to recruiters, such as if their group is considered controversial or how they feel about former members of the group — asking for detailed information can help a person discern whether a group is a cult or not (Hassan, 2018). Getting enough sleep and proper nutrition, as well as avoiding making life-changing decisions while under the influence of drugs or euphoric group experiences, all bolster an individual's defense against unethical persuasion (Atack, 2016). Atack also mentions courageous followership and intelligent disobedience, which involve individuals becoming responsible followers and knowing when to disobey authority figures. Zimbardo and Andersen have recommended the following self-defense techniques for lessening vulnerability to mind control: practicing being a deviant; knowing when to cut one's losses; being assertive; ensuring one has time to think through decisions; individuating oneself and the influencer; avoiding totalist environments; and avoiding acting from guilty motives, among other tips (Langone, 1993).

A major component of defending individuals against thought reform is therapy, interventions, and counseling to help current and former cult members recover from abuse (Goldberg et al., 2017; Hassan, 2018; Lalich & Tobias, 2006; Langone, 1993; Singer, 2003). Psychoeducation — the process cult survivors go through to become educated about thought reform and evaluate what happened to them while in their abusive situations — is important for overcoming post-cult trauma, forging or reclaiming an authentic identity, and ultimately being "able to forgive themselves and carry on with life" (Lalich & Tobias, 2006; Singer, 2003, p. 329). Thus, education about thought reform and cults serves as both a preventive and

corrective security control for defending human beings — considering these crucial roles that thought-reform education and awareness plays, the final section of this literature review summarizes what is known about this topic.

Section 4: Thought-Reform Education, Awareness, and Literacy

Some scholars consider education and awareness efforts to be the most crucial protection against thought reform. Zimbardo and Andersen stated that "knowledge is the most important ingredient in the solution of lessening one's vulnerability to mind control" (Langone, 1993, p. 119) and Atack commented that "only by exposing the tricks of undue influence can we slow down this pervasive expansion of thought reform techniques to create a safer world" (2016, p. 13). This section of the literature review will cover the history of these education and awareness efforts, mention current initiatives, and will conclude with a discussion about thought-reform literacy.

History of Thought-Reform Education and Awareness Efforts

Cult and thought-reform education and awareness efforts have a long history. One of the oldest mentions of thought-reform education in the literature is a 1975 article written by a New Jersey high school social studies teacher in the journal *The Social Studies* (Epstein). Epstein showed his students excerpts from brainwashing fiction, provided some basic historical context to totalitarianism, and had them construct original "thought control" experiments to practice on other students. The students succeeded in using group pressure to manipulate the perceptions and behaviors of fellow students, with some experiments having a success rate as high as 95%. Epstein reasoned that, given the likelihood that American high school students would come into contact with thought reform by either visiting China or

talking with someone from China, that it would be important to incorporate instruction on thought control into the high school social studies curriculum.

In the early 1970s, parents of young adults started to speak out about the cults that were inducing rapid psychological changes in their children (Langone, 1993). Langone explains that, although journalistic accounts of cults had been simmering for a few years, it was not until the Jonestown mass murder-suicide in November 1978 that the topic attracted major attention from the media. Concerned families in the United States established the Citizens Freedom Foundation (CFF) in 1979, which would later be known as the Cult Awareness Network (CAN) (Langone, 1993). The objectives of CFF/CAN were to provide public education about cults and provide help for parents. The American Family Foundation (now the International Cultic Studies Association or ICSA) was also founded in 1979 with the purpose of cult research and professional outreach (Langone, 1993). Clinicians started writing articles in 1978 and 1979 to raise awareness about the harms suffered by cult members (Clark, 1978, 1979; Singer, 1978, 1979). Thus, the 1970s — and the years 1978 and 1979 in particular — were a foundational time for the cult awareness movement.

Info-Cult, originally called Cult Project, was founded in 1980 by Michael Kropveld in Montreal, Canada (Kropveld, 2004). Similar to ICSA, the objectives of Info-Cult included research, public education, and helping people with cult-related issues. In 1987, AFF/ICSA launched the International Cult Education Program (ICEP) with the goal of promoting and developing educational programs as well as training teachers to conduct those programs (Kropveld, 2004). Before funding cuts prevented ICEP from continuing as a distinct program, the initiative produced two educational videotapes, the influential book *Cults on Campus: Continuing Challenge* (Rudin, 1996), pseudoscience fact sheets, educational flyers, a

newsletter, and a lesson plan (Kropveld, 2004). The original edition of *Cults on Campus* "helped create widespread awareness among college administrators and staff, as well as the general public, of the problems caused by destructive groups and helped many higher education executives respond knowledgeably and constructively to the challenge of cults on their campuses" (Rudin, 1996, p. 2). The late 1980s also saw CAN rise as a high-profile and effective organization for outreach, education, and activism, including the hosting of an annual conference attended by hundreds of people as well as helping professionals (Giambalvo et al., n.d.).

Between 1995 and 1997, Scientology managed to bankrupt the Cult Awareness Network after a series of lawsuits (Giambalvo et al., n.d.; Hassan, 2018; Singer, 2003). During the bankruptcy proceedings, CAN's name, logo, and phone number were sold to a Scientologist lawyer, with CAN's records later falling into the hands of Scientologists (Singer, 2003). For years, Scientology ran the new CAN as a deceptive front group named the Foundation for Religious Freedom (Hassan, 2018; Singer, 2003). This incident demonstrated the extent to which certain groups would go to keep the public vulnerable to thought reform by sabotaging cult education and awareness efforts. In 1998, an attempt was made to resurrect CAN as the Leo J. Ryan Foundation, but this initiative failed and the organization shut down in 2002 (Giambalvo et al., n.d.).

A handful of government initiatives related to cult education and awareness have occurred since the fall of CAN. In 1998 a Maryland law resulted in the creation of Task Force to Study the Effects of Cult Activities on Public Senior Higher Education Institutions (Maryland Manual On-Line, n.d.). The Task Force produced an executive summary providing 11 recommendations related to protecting Maryland college students from destructive groups,

including suggestions for awareness and training programs (Stein, 2001; Wood, 2001). The advocacy group NJ Safe & Sound successfully lobbied for the passage of a 2017 New Jersey law to investigate predatory alienation (NJ Safe & Sound, n.d.-c). This initiative culminated in a report on the state of predatory alienation in the state of New Jersey (Cronin et al., 2017), illustrating how concerned citizens can drive legal action to combat thought reform through awareness efforts.

The Open Minds Foundation (OMF) is a US and UK non-profit organization that was founded in 2015 with the goal of doing "everything within our power to minimize the effects of coercion and coercive control, and to strive for its complete eradication from society" (Open Minds Foundation, n.d.-d). The organization is unique in the way it combines education, legal activism, and support for victims of undue influence (Hassan, 2016). The OMF website provides comprehensive educational resources to expose undue influence, including its history, biological origins, and the many social contexts in which it occurs.

Existing Thought-Reform Education and Awareness Efforts

There are many organizations and initiatives that advance cult and thought-reform education and awareness efforts. Info-Cult, the International Cultic Studies Association (ICSA), and the Open Minds Foundation were discussed in the previous section. Examples of other extant groups include CultsNews101 (*CultNews101*, n.d.), Cult Education Institute (Cult Education Institute, n.d.), Freedom of Mind Resource Center (*Freedom of Mind Resource Center*, n.d.-a), Apologetics Index (Apologetics Index, n.d.), and the ICSA New York Educational Outreach Committee (International Cultic Studies Association, n.d.-c). The Open Minds Foundation maintains a large list of links to third-party organizations, many of which

promote education and awareness efforts to combat coercion (Open Minds Foundation, n.d.-a).

Cult awareness and education efforts take many forms. For instance, in October 2020, the #igotout movement started with the igotout.org website and the igotout hashtag on Twitter (iGotOut.org, n.d.-a). The #igotout movement is inspired by the #MeToo, with the goal of creating a similar truth-telling movement for people who have experienced abuse in cultic groups (iGotOut.org, n.d.-a). The igotout.org website curates blog posts and provides suggestions for educational videos, books, and podcasts to assist with helping cult victims (iGotOut.org, n.d.-b). Many other education efforts have been deployed. *Ending the Game* is a "coercion resiliency" curriculum designed for human trafficking victims to help them overcome the mind control of their traffickers (Freedom of Mind Resource Center, n.d.-b). The NJ Safe & Sound advocacy group has produced psychological manipulation awareness brochures, focusing on protecting seniors and young adults (NJ Safe & Sound, n.d.-a, n.d.-b, n.d.-d). Steven Hassan has created a 4-hour online introductory Udemy course on cults and thought reform (Hassan, 2021b).

There are various YouTube channels with dozens of free educational videos on cults, thought reform, and related topics (*Freedom of Mind Resource Center*, n.d.-a; *International Cultic Studies Association (ICSA)*, n.d.; *jon atack, family & friends*, n.d.). Two introductory videos appropriate for laypeople include Janja Lalich's animated TedEd video "Why do people join cults?" (TED-Ed, 2017) and Netflix's documentary "Cults, Explained" (Netflix, 2019). Old but pertinent educational videos about cults and thought reform can be found on the ICSA's YouTube channel, including the 1990 ICEP videotape "Cults: Saying No Under Pressure" narrated by Charlton Heston (International Cultic Studies Association, 2014b), the

ICEP videotape "After the Cult: Recovering Together" (International Cultic Studies

Association, 2014a), and Margaret Singer's 1994 video "What Is A Cult and How Does It

Work?" (International Cultic Studies Association, 2014c). Audio podcasts are also available

to learn more about these issues, such as *IndocriNation* and *Let's Talk About Sects* (Bernstein,

2018-present; Steel, 2017-present). Many educational films on cults have been produced,

including documentaries on NXIVM, Jonestown, and Aum Shinrikyo (CNA Insider, 2020;

Peck, 2020; Wolochatiuk, 2007).

Efforts have been made to initiate and maintain cult awareness and training programs

in educational settings. Training programs and workshops for resident assistants (RAs) have

been developed to help them counsel students who may be struggling with issues related to

cult recruitment (Rudin, 1996). Rudin mentioned that the University of Delaware, University

of Toronto, and Cornell University have all held cult awareness campaigns designed to

protect their students. In the 1980s, the Quebec Ministry of Education developed a six-hour

high school course on cults for the school system in Quebec (Kropveld, 2004).

Some institutions of higher education offer degree programs, courses or units on the

subject of cults and thought reform. The Psychology of Coercive Control is a master's degree

taught at the University of Salford, in Manchester, England — as of July 2021, this was the

only master's program in coercive control taught anywhere in the world (International Cultic

Studies Association, 2021a; University of Salford, n.d.). The University of Barcelona has a

postgraduate degree program in behavioral addiction and psychological manipulation, part of

which focuses on coercion (Instituto de Formación Continua - Universidad de Barcelona,

n.d.). Philip Zimbardo taught a course called The Psychology of Mind Control at Stanford

University for 15 years (Hassan, 2018). Various courses on cults have been taught in colleges

and universities in Montreal, Canada (Kropveld, 2004). In the social engineering course that I created for Dakota State University in 2020, I taught a small unit on psychological manipulation and thought reform in an effort to protect the university community against the threat.

Introduction to Thought-Reform Literacy

Literacy can be defined as "the condition or quality of being knowledgeable in a particular subject or field" (Houghton Mifflin Harcourt, n.d.-b; Merriam-Webster, n.d.-b, n.d.-c). Thus, thought-reform literacy can be defined as "the condition or quality of being knowledgeable about thought reform." Since the issue of cultism is inherently related to the issue of ideological totalism (Lifton, 2019), literacy about thought reform will necessarily involve literacy about cultism.

I coined the phrase "thought-reform literacy" in this study, as it does not appear in the cultic studies literature, despite the notion having been discussed before. As far back as 1984, the lack of formal evaluation procedures for assessing preventive cult education programs was mentioned by scholars (Bloomgarden & Langone). Bloomgarden and Langone mentioned how different assessment procedures would be necessary for evaluating cult education programs, since the programs can be designed with different goals in mind such as imparting knowledge, shifting attitudes, inspiring behavioral changes, or some combination of the three. Thought-reform literacy standards and survey instruments can help address these issues identified by Bloomgarden and Langone, as they can serve as a basis for evaluating the effectiveness of cult education programs, especially those aimed at imparting knowledge.

It is helpful to compare thought-reform literacy with climate science literacy, as both involve people being knowledgeable about complex international problems that pose

existential threats to human life. The National Oceanic and Atmospheric Administration (NOAA) is a Department of Commerce agency that has proposed climate literacy standards (Climate.gov, n.d.-a, n.d.-b). The NOAA defines climate science literacy as consisting of four parts: understanding "essential principles" about climate science; knowing how to assess the scientific credibility of information about the climate; being able to communicate meaningfully about the climate and climate change; and being able to affect the climate through "informed and responsible" decisions (Climate.gov, n.d.-b). Adapting these qualities of a climate science-literate person, a thought-reform-literate person could be defined as one who understands the core principles of thought-reform theory; can assess the scientific credibility of information about thought reform; can communicate meaningfully about thought reform; and is able to influence the current state of thought-reform abuses through personal actions. Increased and sustained awareness about the realities of climate change is crucial for averting human extinction — what Lifton has called "the climate swerve" (2017). In a similar way, an increased and sustained awareness about the realities of thought reform and cultism could be considered crucial for averting more cult-related tragedies like Jonestown, 9/11, or the January 6th attack on the US Capitol.

Science literacy surveys can reveal interesting or startling statistics about scientific knowledge in a population — for instance, one 1989 article reported that less than half of Americans knew that the Earth revolves around the sun once a year and only 12% of Americans correctly recognized that astrology is "not at all scientific" (Culliton). Carl Sagan mentioned that one survey found that 63% of American adults were "unaware that the last dinosaur died before the first human arose" (1996, p. 324). Unlike illiteracy in the areas of astrophysics or paleontology, a widespread lack of knowledge about thought reform would be

far more concerning as it would represent a pressing national security concern and would stymy systemic changes that would help prevent the suffering of millions of human beings. Thus, the dearth of thought-reform literacy data suggests the existence of a serious societal vulnerability that is not being investigated or remedied.

Thought-reform literacy standards must be adapted to the population being studied. For instance, a literacy assessment administered to adults will necessarily be different from one that is administered to adolescents or children due to developmental differences in those populations. Additionally, it may be beneficial to set higher thought-reform literacy standards for individuals working within certain occupations due to their ability to combat the threat, such as mental health professionals, journalists, reporters, law enforcement, legal professionals, doctors, psychiatrists, school administrators, educators, government officials, members of the intelligence community, military personnel, security and privacy experts, clergy, cult experts, and researchers in related fields such as counterterrorism, domestic abuse, and human trafficking.

The general public is a particularly important population to target for thought-reform literacy research and is the focus of this study. Since there are no legal protections against thought reform and cults in America, the public is left to defend themselves (Hassan, 2018), meaning that thought-reform and cult literacy among laypeople is their first line of defense. Singer emphasized that thought reform "should be studied and revealed" with the purpose of defending ordinary citizens against cultic exploitation (2003, p. 83). Since every citizen in a democracy has a stake in understanding how the security of their mind can be compromised, widespread thought reform and cult literacy can serve as a baseline for civilian defense.

Negative Bias Towards Cults and Cult Members

When assessing cult literacy, it is important to be mindful of negative biases that could influence the research results. Scholars of New Religious Movements have demonstrated a negative bias against groups described as cults in both media reporting and among the public (Patel, 2021). A telephone survey conducted in 1984 found that among 400 registered voters in Washoe County, Nevada, 35% (141 respondents) agreed with the statement that "legislation should be passed to control the spread of new religions or cults" (Richardson & Van Driel, 1984). When demographic variables were considered, those who were older, lower income, or female tended to agree with the statement more than younger, higher income, or male individuals. A contemporaneous large scale study found that 11% of "opinion leaders" and 18% of the mass public in America thought that freedom of worship did not apply to religious cults that were "strange, fanatical or weird" (McClosky H. & Brill A., 1983, cited in Richardson & Van Driel, 1984). These findings are significant because these legislative controls may conflict with the civil and religious liberties guaranteed in the United States Constitution (Richardson & Van Driel, 1984).

A 1992 study reported on a telephone survey of 1,708 Americans and 863 elites conducted in 1987 that included several questions related to public support for legal controls on cults (Bromley & Breschel). Like in the Richardson & Van Driel study, the authors found significant public support for potentially unconstitutional legal controls: 30% of respondents supported censoring the *Washington Times* (a Unification Church newspaper), 63% supported restrictions on money solicitations at airports, 63% supported FBI surveillance of cults, and 73% agreed that the conversion of teenagers by cults should be outlawed. Institutional elites had lower rates of support: 10%, 39%, 26%, and 37% for the preceding legal controls, respectively. Demographic influences were similar to those found in the Richardson & Van

Driel study: people who were older, lower income, had lower educational attainment, and were more religiously involved tended to support restrictive controls on cults compared to others. A 2006 study found similar results with 52.6% of Nebraskans supporting legal controls to restrict the practices and activities of cults, with older, lower income, less educated, and female individuals being more likely to express support (Olson).

In addition to the public support for legal controls on cults, studies also indicate suspicion and negative bias towards cults and cult members. A 1992 survey of 98 undergraduate students at the University of Nebraska was conducted to illustrate the role of group labels in the evaluation of an indoctrination scenario (Pfeifer). Research participants were presented with an identical vignette of an indoctrination scenario which was either described as portraying a young man in a Catholic seminary, the Marines, or the Moonies (a.k.a., the Unification Church). Respondents who were told the indoctrination was taking place in the Moonies were more likely to label the indoctrination vignette as "brainwashing" (70.97%) compared to using the same phrase to describe the Marines (44.12%) and the Catholic seminary (29.41%). Additionally, respondents were significantly more likely to rate the indoctrination process as negative and coerced, and to rate the young man as less intelligent, less responsible, and less happy with his life prior to joining the group if the group was the Moonies as opposed to the Marines or the Catholic seminary. This study illustrated that people may have a negative bias against groups labelled as cults (such as the Moonies) compared to other similar groups, even if the available information about group practices is identical — however, the small sample size and highly specific population makes the external validity of these findings difficult to interpret. Pfeifer hypothesized that the bias against the

Moonie indoctrination scenario was the result of a negative framing effect from overreliance on sensationalized media reporting.

A strand of research in the New Religious Movements literature is the investigation of the media for negative bias when reporting on and portraying cults (for an extended summary of the literature in this area, refer to Patel, 2021; Richardson & van Driel, 1997). Richardson and van Driel sent a survey designed to measure the attitudes and experiences that journalists who were involved with reporting religion stories had with several controversial and comparison religious groups (1997). The journalists who responded tended to have unfavorable views of groups including the Unification Church (76.3%; N=80), Scientology (77.2%; N=79), Children of God (50.7%; N=76), The Way International (73.7%; N=76), Hare Krishna (64.1%; N=78), Bhagwan Rajneesh (75.9%; N=79), and Jehovah's Witnesses (53.2%; N=79) and tended to have neutral or favorable views of other groups such as the Divine Light Mission, Transcendental Meditation, Christian Science, Salvation Army, and the Mennonites. These data suggest a degree of arbitrariness of which groups journalists tend to view negatively — however, the authors note that issues with the response rate make it difficult to interpret the external validity of these findings. Data from Pfeifer's study suggested that most people rely on indirect sources for information about cults — only 21 of the 98 research participants had direct contact with a cult member, whereas 72 of the remaining 77 respondents got their cult information from mass media such as television, magazines, radio, and newspapers (1992). Taking these findings together lends support to the hypothesis that many people tend to rely on negative media reporting for their information about cults and New Religious Movements, meaning that people may harbor potentially

biased attitudes towards certain groups due to their reliance on the media as opposed to a familiarity with the academic literature on cults.

A 2006 study reported on the results of a telephone survey that measured the public perception of cults in Nebraska (Olson). When respondents were asked if they would be comfortable if their neighbor joined a cult, 81.4% of them said that they would be somewhat or very uncomfortable. The most significant demographic variable was sex, with 88.3% of females stating that they would be uncomfortable compared to 76.5% of males. When the question wording was changed by replacing the word "cult" with "New Religious Movement" or "New Christian Church," the rate of respondent discomfort dropped to 29.1% and 6.1% respectively despite the similarity of the labels, demonstrating a negative bias towards the label "cult."

Considering the negative bias towards cults and cult members that have been demonstrated in the aforementioned studies, any survey instrument designed to measure literacy about cults should clarify and disambiguate what is meant by "cult" – if the label is used at all – or strive to emphasize neutral, unambiguous terminology such as "psychologically manipulative groups." In this way, respondents will be encouraged to consider groups that utilize thought reform techniques, which is a more neutral framing than asking the respondents about "cults" since emphasizing the label could unduly influence their responses. It should be noted that although cult scholars and professionals tend to use the term "cult" to describe any social situation involving thought reform, it is unlikely that non-expert respondents of a literacy survey will be familiar with this convention.

Common Misconceptions about Thought Reform and Cults

An important part of thought-reform literacy is overcoming common misconceptions about the issue. Lifton stated that "there are two false views of thought reform — one is that it doesn't exist… and the other is it's an absolute form of controlling and changing the mind that can't be resisted" (Freedom of Mind Resource Center, 2020a, 46:16). These are two of the oldest and most persistent misconceptions about thought reform, as they have been around since the original Chinese Communist thought-reform programs were being investigated by researchers (Lifton, 1989). Another common myth is that people who get involved with cults are "stupid, weird, crazy, weak-willed, or neurotic" — that something is wrong with them and that is why they joined (Lalich & Tobias, 2006, p. 22; Singer, 2003). This myth is related to the "Myth of the Seeker," where people falsely assume that cult victims "go out looking for cults," contrary to clinical findings and the literature (Singer, 2003, pp. 23-25). Singer also describes the myth of the invulnerable mind, another misconception that involves people believing they are somehow immune to brainwashing and cult recruitment. Other experts have noticed that some people erroneously believe that cults disappeared decades ago and are no longer a problem in society (Hassan, 2018; Lalich & Tobias, 2006). These common misconceptions were a major focus while developing the curriculum used for this study's literacy questionnaire.

Previous Attempts to Measure Thought-Reform and Cult Literacy

Despite thought-reform and cult literacy being so crucial for psychological security, extraordinarily little research has been done to measure the knowledge of these issues in any population. No previous research study has attempted to define thought-reform or cult literacy, although researchers have gathered quantitative data on attitudes, beliefs, and knowledge related to the cult problem in other survey studies. The majority of the existing

data measures attitudes, perceptions, and beliefs, rather than objective knowledge as was done in this dissertation.

A 1984 study summarized the effects of different preventive cult education programs on the attitudes, knowledge, and intended behaviors of Boston high school students (Bloomgarden & Langone). The knowledge questions involved defining and identifying cults as well as the "true objectives of cults" — however, the exact questions used were not discussed in the paper. As part of Pfeifer's 1992 survey comparing the effect of group labels on the perception of an identical indoctrination scenario, knowledge about cults was assessed by asking respondents to identify specific cults or cult leaders, describe what makes a cult, describe an average cult member, and identify where they get their cult information from. The majority (74.47%, or 70 of 94; and 82.42%, or 75 of 91) participants provided negative descriptions for a cult and the average cult member, respectively. The Pfeifer study also found that 90.82% (89 of 98) of undergraduate students at the University of Nebraska were familiar with either the Manson Family murders or Jonestown mass murder-suicide and 75.51% (74 of 98) were familiar with the label "Moonie."

Information about a middle and high school lesson plan on cults available on ICSA's website mentions administering a pre- and post-test designed to "assess how much they [the students] know about cults and psychological manipulation" (Rudin, 1992). This literacy test appears to be one of the first ones developed that was specifically targeted towards children and adolescents. The lesson plan covered various aspects of cultic studies, including defining a cult, cultic harms, mind control and psychological manipulation, and resisting occult rituals, mind control, and psychological manipulation. However, the content of the pre- and post- test

and any statistics obtained from the survey instrument do not appear to be available in the research literature.

In 2001, researchers in Spain presented a poster on the results of a Likert survey designed to measure the changes in attitudes, perception, and knowledge of secondary school and university students who had partaken in an educational session on cults (Almendros et al., 2001). Among the questions asked were knowledge questions about whether it is difficult to become involved with a cult, whether cults encourage disconnection from family and friends, and whether the size of a cult determines how dangerous it is, among other questions (C. Almendros, personal communication, July 17, 2021). The educational intervention had a statistically significant effect on the participants' knowledge, attitudes, and perceptions — however, exact statistics for the individual knowledge questions were not reported.

The most recent study to discuss thought-reform literacy statistics is a 2009 Spanish study that assessed a preventive education program to protect adolescents from psychologically manipulative groups (Maté et al.). Two types of intervention programs and a no-treatment control group were assessed across different secondary schools in Barcelona by administering a pre- and post- questionnaire designed to measure attitude and belief changes in the research participants (n=525). Thus, there were six different data points for each question that was asked of the research participants. When asked about their intentions to engage in a range of self-protective behaviors when confronted with a "group with unclear intentions," such as not giving out their personal data and searching for more information about the group, between 64.5% and 98.4% of the adolescents answered affirmatively before the intervention and between 74.5% and 98.1% post-intervention. When asked if they had "searched for information about a group with unclear intentions" in the past month, only

between 4.7% and 11.3% pre-intervention and between 3.8% and 12.0% post-intervention said yes.

Several of the questions in Maté et al.'s study measured attitudes and beliefs about psychological manipulation and the supporters of manipulative groups. At least 90.4% of the adolescents pre-intervention and 86.8% post-intervention agreed with the statement "joining a psychologically manipulative group is harmful." When asked if "psychologically manipulative groups make attractive offers," between 63.3% and 79.6% pre-intervention and between 72% and 91.8% post-intervention agreed. Approximately 30-45% of respondents stated they were "currently living in a psychologically manipulative situation." Statistics on the perception of cult supporters included the following: the supporters receive affection (between 4% and 6% pre, 3.1% and 17% post); supporters are led without their knowledge (between 63.5% and 81.6% pre, 56.6% and 87.1% post); supporters receive all the information (between 2.8% and 6.8% pre, 1.4% and 9.4% post); supporters are not intelligent (between 7.6% and 26.9% pre, 6.3% and 17% post); supporters have more than one erroneous belief (between 0% and 0.5% pre, 0% and 0.8% post). Between 33.6% and 72.5% of respondents across the six surveys identified either "refuse to talk if someone is angry," "victimize to elude responsibilities," or "insist when someone says no" as psychological manipulation tactics.

Perhaps the most meaningful literacy statistic in Maté et al.'s study was the survey question about belief in vulnerability to cults. Before partaking in the education program, between 2.4% and 11.3% of the adolescents believed that they "could be lured into a psychologically manipulative group," and this range increased to between 5.1% and 17.0% post-intervention. However, when asked about whether they thought their "friends could be

lured into a psychologically manipulative group," between 12.1% and 28.8% of respondents across the treatment groups said yes pre-intervention and this range increased to between 17.3% and 34.4% in the post-intervention survey. These low rates of belief in the psychological vulnerability of themselves and their friends suggests that many of the adolescents' minds were not secure, since humility is a foundational security control for psychological self-defense. Perhaps unsurprisingly, the statistics also suggest that the adolescents were likely to believe their own minds were secure but were comparatively less likely to extend this same optimism to their friends. Any population with a high rate of cult and thought-reform literacy would have vulnerability belief statistics approaching 100%, especially for the measure of belief in self-vulnerability.

Current State of Thought-Reform and Cult Literacy

It has been suggested by experts and advocacy groups that people in general are insufficiently literate about thought reform and cults. The Open Minds Foundation states that "most people in today's world are unaware of the severe dangers of coercion. Even worse, many think it does not exist, while others think it can only happen to gullible people" (Open Minds Foundation, n.d.-e, p. 8). Throughout the course of his professional work, Hassan has noticed that many people are unaware of seminal cult tragedies like Jonestown, Aum Shinrikyo, Heaven's Gate, and Waco (2018). As has been discussed earlier in this literature review, there are still professionals and academicians who are not literate about these issues, illustrating how thought-reform illiteracy can affect anyone regardless of their profession or educational attainment. Although cult professionals have made these observations about thought-reform literacy, there is a general lack of literacy data in any population as outlined in the previous section, and thus the current state of thought-reform literacy is largely unknown.

A related topic is literacy studies in closely related research fields, such as surveys that have been administered to measure the public's familiarity with totalitarian regimes. One survey investigating familiarity with communist leaders and regimes found that, among millennials in the study, 42% and 18% were unfamiliar with the communist leaders Mao Zedong and Joseph Stalin, respectively (Langlois, 2016). Surprisingly, a third of millennials in the study believed more people were killed by George W. Bush than Joseph Stalin, the latter of which killed millions during his reign. A different study investigated literacy about the Holocaust (Zauzmer, 2018). It found that two-thirds of American millennials did not know that Auschwitz was a concentration camp, and a whole 22% of millennials and about 11% of American adults either had not heard of the Holocaust or were not sure if they had heard of it. Although there is more literature in these adjacent research fields that could have been summarized in this literature review, it was not exhaustively searched since scholars in these areas (including human trafficking, domestic abuse, and terrorism) tend to not focus on thought reform itself, which minimizes that literature's usefulness for direct statistical comparison with the results of thought-reform literacy in general, which is the focus of this study.

CHAPTER 3

METHODOLOGY

Overview of the Chapter

Chapter 2 discussed the importance of thought-reform education and the widespread lack of thought-reform literacy data in the literature. This chapter outlines the methodology that was used to measure thought-reform literacy among South Dakotan adults. This was achieved by administering a mail survey of South Dakotans containing layperson-appropriate questions designed to measure thought-reform knowledge. The survey instrument was constructed with the help of external thought-reform experts to ensure the accuracy of test questions and their appropriateness for laypersons.

The remainder of this chapter discusses the following: the appropriateness of survey research as the chosen methodology for this study and why a mail survey design was chosen; the research questions, hypotheses and variables involved; the population and sampling frame; details about the survey instrument and how it was validated by thought-reform experts; data collection procedures; validity, reliability, and bias concerns; the plan followed for the data analysis; other statistical issues related to survey design; and the ethical assurances observed for protecting all stakeholders of this study.

Method Appropriateness of Mail Survey Research

The purpose of survey research is to produce quantitative descriptions of a population by asking questions of a sample of the people in that population (Fowler Jr., 2014). Fowler

explains that research survey designs are particularly useful for measuring aspects of people that are not readily available through other means, including psychological attributes such as knowledge, attitudes, and beliefs. Since the purpose of this study was to measure knowledge of thought reform among South Dakota adults, survey research was particularly well-suited for this study.

Mail surveys are one of several mediums for collecting survey data and involve the physical mailing of paper questionnaires to members of the population and those recipients mailing the forms back to the researcher (Fowler Jr., 2014). There were various reasons a mail survey was chosen over the other forms of survey such as an internet or telephone survey. Most importantly, a mail survey was better suited for covering the target population than internet or telephone surveys as mail surveys can reach anyone with a physical address. Most South Dakotan adults have a physical address, and it was reasonable to assume that comparatively fewer would use the internet or have landline telephones. Additionally, mail surveys often have sufficient response rates and executing a mail survey design is achievable by a single researcher, both in terms of labor and monetary cost (Fowler Jr., 2014). In-person household interviews were excluded due to their prohibitive cost and time commitment, although such interviews could be a promising option for future studies of this kind.

Variables, Research Questions, and Hypotheses

The predictor variables consisted of the survey participants' demographic information, which included the following characteristics:

- Age
- Educational Attainment

- Subjective Social Status

- Ethnic and Racial Identity

- Sex

Age, subjective social status, and educational attainment were ordinal-scale variables since they were classifications that could be ascendingly ordered, but sex and ethnic and racial identity were nominal-scale variables since they could not be logically ordered (Hatcher, 2013). The criterion variables consisted of the composite literacy score of the entire questionnaire, which was a combination of the scores within the following four content areas:

- Content Area 1: Ontology

- Content Area 2: Seminal Tragedies and Harms

- Content Area 3: Prevalence

- Content Area 4: Vulnerability and Defense

All of the criterion variables were interval variables because they were represented by a numeric score that linearly scaled with how well respondents performed on the literacy test – they were not, however, ratio-scale variables because a score of 0 would not necessarily mean a participant had absolutely no knowledge of thought reform (Hatcher, 2013).

This study intended to answer the broader research question RQ0: "What is the degree of thought-reform literacy among adult South Dakotan laypeople?" The overall degree of thought-reform literacy was determined by calculating the composite mean literacy score from the entire questionnaire. This overarching research question was broken down into several sub questions; these sub-questions investigated the influence that the predictor variables had on respondent thought-reform literacy. Table 7 summarizes these 7 research questions that guided this study:

Table 7

The research questions investigated in this study

Label	Description	Result Sought
RQ0	What is the degree of thought-reform literacy among adult South Dakotan laypeople?	Mean Score
RQ1	What is the relation between age and the degree of composite respondent thought-reform literacy?	Correlation Coefficients
RQ2	What is the relation between educational attainment and the degree of composite respondent thought-reform literacy?	Correlation Coefficients
RQ3	What is the relation between subjective social status and the degree of composite respondent thought-reform literacy?	Correlation Coefficients
RQ4	What is the relation between race and ethnicity and the degree of composite respondent thought-reform literacy?	Correlation Coefficients
RQ5	What is the relation between sex and the degree of composite respondent thought-reform literacy?	Correlation Coefficients
RQ6	What is the relation between belief in self-vulnerability to thought reform and the degree of composite respondent thought-reform literacy?	Correlation Coefficient

Table 8 shows the six null hypotheses:

Table 8

The null hypotheses tested in this study

Label	Description
NH1	Respondent age is not correlated with composite thought-reform literacy.
NH2	Respondent educational attainment is not correlated with composite thought-reform literacy.
NH3	Respondent subjective social status is not correlated with composite thought-reform literacy.
NH4	Respondent race/ethnicity is not correlated with composite thought-reform literacy.
NH5	Respondent sex is not correlated with composite thought-reform literacy.
NH6	Respondent belief in self-vulnerability to thought reform is not correlated with composite thought-reform literacy.

These six null hypotheses were proposed due to the scarcity of data on thought-reform

literacy in any population — although there was data on the influence of demographic

variables on attitudes towards cults, most of the data was not related to objective knowledge

about thought reform, and no data existed for the South Dakotan adult population. Thus, there

was little existing empirical evidence that respondent demographic variables would have any

influence on thought-reform literacy, so the null hypotheses were chosen as a presumptive

baseline.

Total Survey Design

Total survey design consists of the following three methodologies: sampling, question

design, and data collection (Fowler Jr., 2014). Potential sources of survey error include issues

involving differences between the sample and the target population as well as issues with how

well answers measure what the researcher intends to measure (Fowler Jr., 2014). Fowler notes

that, as the quality of the data will be limited by the most error-prone of these components of

the survey design, it is important for researchers to attend to all three of these aspects of the

survey design by optimizing their limited resources to limit these two types of error. The

following three sections discuss the important decisions made within each of these

methodological areas to optimize the total survey design.

Population and Sampling Frame

Evaluation of survey sampling procedures is important for determining the quality of

the statistical inferences that are made about the population being studied (Fowler Jr., 2014).

Fowler explains that there are two types of error associated with sampling procedures:

sampling error and bias. Sampling error can occur if there is random variation between the

population being studied and the sample that is utilized, such as when a disproportionate

number of women answer the survey compared to how many women are in the target

population. Bias is another form of error that can occur during sampling when the sample that

is utilized is different in some systematic way from the target population, with an example

being how mail surveys usually fail to include prisoners, the homeless, and those in group

living situations in the sample. Both sources of error need to be considered by the researcher. Details about the sampling frame, sample design, and the probability sampling procedures are all necessary for evaluating the quality of a sample. These aspects are discussed in the following two sections.

Sampling Frame

The sampling frame consists of all people who have a chance of being included in the survey sample (Fowler Jr., 2014). There are three general types of sampling frames in survey research — having a complete list of individuals in a population; sampling people at a specific location under a specific condition; or multi-stage sampling using geographic areas, housing address lists, or telephone numbers. This study used a simple random sampling design utilizing a complete address list. The sample consisted of a random set of adults chosen from a comprehensive list of South Dakotan addresses purchased from the list vendor Melissa Inc.

It is important to consider how the sampling frame was constructed because it can limit the quality of the research survey findings. Fowler (2014, p. 16) lists three key aspects of the sampling frame that researchers must evaluate:

- "*Comprehensiveness*, that is, how completely it covers the target population"
- "Whether or not a person's *probability of selection* can be calculated."
- "*Efficiency*, or the rate at which members of the target population can be found among those in the frame"

Most sampling frames will leave out some portion of the target population, meaning that the sampling frame has less than perfect comprehensiveness (Fowler Jr., 2014). This is also called coverage error (Dillman et al., 2014). Fowler explains that mail surveys often leave out people in prisons, dormitories, nursing homes, or other group-living situations, and

the homeless. Since residential address lists based on the United States Postal Service's records were utilized, this study left out some unknown proportion of the South Dakotan adult population that fell under the aforementioned categories. Additionally, although the addresses purchased from the data vendor are updated monthly (Melissa, 2020), an unknown proportion of all South Dakotan addresses were either new, unknown, or undeliverable by the United States Postal Service (USPS) (Melissa), leading to further reduced comprehensiveness. The best estimate of coverage error is between 3% and 5%, as one 2011 study found that between 95% and 97% of households in the US can be reached with a mail survey (Dillman et al., 2014). Due to budget and time limitations, no analysis of coverage error was conducted and instead the differences between those that were in the sampling frame and those that were not was assumed to be negligible, as mentioned in Chapter 1.

It was possible to estimate the probability of selection for each member of the population. The survey questionnaire included a question to collect the number of adults in each respondent's household, a measure that was needed to properly weight the survey responses. The efficiency for this study was estimated to be near 89.1% (100% minus the South Dakota vacancy rate of 10.9% (America Counts Staff, 2021)) since all South Dakotan adults are in the target population and the probability that an inhabited physical address did not have an adult present is small.

Simple Random Sample Design and Probability Sampling Procedures

This study utilized a simple random sampling design – a complete list of USPS-deliverable South Dakotan addresses was purchased to maximize the likelihood that everyone in the population had an equal chance of being selected. Since only addresses were purchased

from the list vendor, stratification was not performed based on respondents' demographic variables like sex or educational attainment.

The desired sample size was determined to be 204 (calculations for this desired sample size are shown later in this chapter). The details of the 4-phase mailing schedule are covered later in this chapter, and incremental responses were expected as each phase was executed. Assuming an estimated 20% of respondents would reply to the first survey parcel and reminder postcard, an additional 10% to the second mailing of the survey in phase 3, and a further 10% with the final reminder letter in phase 4, it was estimated that at least 500 survey parcels would need to be mailed during phase 1 in order to reach this target sample size.

The probability sampling procedure for the complete address list was simple – a random number generator (RNG) was used to "pull numbers out of a hat" to select random addresses from the list. A custom RNG was scripted in Python and used for this purpose, and is shown in Appendix N. The probability sampling procedure for selecting a participant in a household with two or more adults can be challenging (Olson & Smyth, 2017). In order to avoid bias, every eligible adult in the household must have an equal chance of being selected, but this requirement for randomness must be reasonable to avoid having the selection procedure seem too cumbersome or intrusive (Fowler Jr., 2014). Thus, this study utilized the common technique known as the "next birthday" method, which required the adult with the next birthday to fill out the survey. A 2017 study found that using an active question to verify that the correct adult (the one with the next birthday) increased proper selection of that adult by 59% compared to passive instructions in the cover letter, with a modest decrease in response rates and no difference in item nonresponse (Olson & Smyth). Thus, this study also used Olson and Smyth's active question method to increase the odds that the correct adult

within each household would fill out the survey. The varying numbers of adults within households meant that adults had varying probabilities of being selected, making the weighting of the survey results based on the number of adults in the household necessary. Two questions were included in the demographic question section for these purposes and are shown in Appendix A.

Survey Instrument and Question Design

The survey questionnaire presented in this study is titled the "Thought-Reform Literacy Questionnaire for South Dakotan Laypeople (TRLQ-SDL)." This naming convention is being introduced because some of the questions are geography-specific to the population being studied and would need to be modified for non-South Dakotan populations. Thus, derivative questionnaires that target different lay populations can easily be distinguished from each other while allowing the reader to infer that the research results can be compared across studies. Additionally, derivative questionnaires can be developed for non-lay populations, such as mental health professionals or attorneys, and this naming convention allows for the distinction between those assessments and uses of the TRLQ that target the general public.

Literacy Questionnaire Blueprint Design Process

Psychometrics is the study and practice of psychological assessment, which can include measurement of peoples' personality, attitudes, and knowledge (Rust et al., 2021). As this study investigated knowledge in a population using a survey instrument, the questionnaire that was developed is a psychometric assessment. Thus, psychometric principles were considered throughout the design of the TRLQ-SDL.

The blueprint serves as a framework for developing the psychometric questionnaire (Rust et al., 2021). Rust et al. explain that it is typically represented in a grid and consists of

content areas along the horizontal axis and manifestations along the vertical axis. The content areas of the survey are determined by its purpose and span the different aspects of what is being tested. The manifestations cover the different ways in which each content area can be measured — as this was a knowledge assessment, the manifestations were inspired by Bloom's taxonomy of learning objectives to ensure different forms of knowledge were tested. Rust et al. note that it is best practice to utilize four to five content areas and four to five manifestations in the blueprint.

The content areas of the survey spanned different themes of thought-reform literacy and included Ontology, Seminal Tragedies and Harms, Prevalence, and Vulnerability and Defense. These content areas were identified early in the curriculum-building process as areas of thought-reform literacy appropriate for laypeople. These areas were defined as follows: Ontology concerns the existence and terminology of thought reform; Seminal Tragedies and Harms includes the major historical events related to thought reform and the typical harms experienced by people in thought-reform environments; Prevalence covers statistics and facts related to how common thought reform is; and Vulnerability and Defense involves psychological security concepts as they relate to thought reform.

Krathwohl's paper on Bloom's revised taxonomy was utilized to identify appropriate manifestations for the blueprint (2002). Since this literacy test was administered to laypeople, the bottom two levels of the cognitive process and knowledge dimensions were chosen to ensure that the test questions were as simple as possible. Table 9 shows how the manifestations were inspired by the Taxonomy Table from Krathwohl (full taxonomy table not shown).

Table 9

The manifestations mapped to the Taxonomy Table

	The Cognitive Process Dimension		
The Knowledge Dimension	1. Remember	2. Understand	3. Apply
A. Factual Knowledge	Manifestation 1	Manifestation 3	-
B. Conceptual Knowledge	Manifestation 2	Manifestation 4	-
C. Procedural Knowledge	-	-	-

The four manifestations used in the blueprint for this survey consisted of the four pairings of the first two levels of the Knowledge and Cognitive Process dimensions. Descriptions were adapted from (Krathwohl, 2002). Manifestation 1 involved the remembering of factual knowledge, or the retrieval of knowledge about specific terminology, details, or elements. Manifestation 2 involved the remembering of conceptual knowledge, or the retrieval of knowledge about classifications, categories, principles, generalizations, theories, models, and structures. Manifestation 3 involved the understanding of factual knowledge, or the ability to determine the meaning of instructional messages related to specific terminology, details, or elements. Manifestation 4 involved the understanding of conceptual knowledge, or the ability to determine the meaning of instructional messages related to classifications, categories, principles, generalizations, theories, models, and structures.

An integral part of the survey design process is determining the appropriate length of the survey. The relation between survey length and response rate is difficult to predict (Allen, 2016; Burkhart et al., 2021; Fowler Jr., 2014). This is because response rates vary based on the population sampled and the topic of the survey (Fowler Jr., 2014), as well as the fact that

response rates can suffer in surveys that are either too long or too short (Allen, 2016). Furthermore, there is evidence that if the page count of a survey is increased to make it more attractive for respondents, increasing the survey page length can actually increase response rates (Burkhart et al., 2021).

In general, the research suggests that shorter surveys have higher response rates than longer surveys (Allen, 2016). However, since approximately 12 questions are necessary to ensure adequate reliability for each subscale of the psychometric blueprint, a balance must be struck with regard to question count and respondent response rate (Rust et al., 2021). A target survey length of 48 questions was chosen as it allowed for all four content areas to have at least 12 test items in the final version of the literacy questionnaire, the minimum needed for adequate reliability. Since the pilot survey should contain at least 50% more questions than the final survey (Rust et al., 2021), it was determined that the pilot survey would contain 72 questions.

Once the content areas and manifestations were defined and the total survey length was determined, the following survey blueprint was created to plan how many questions should be allocated amongst the content areas and manifestations, following the process described in (Rust et al., 2021). This involved weighting the different sections of the survey considering the overall survey length. Table 10 shows how the questionnaire was weighted across the content areas and manifestations in the form of (number of items in pilot, number of items in final survey).

Table 10

Blueprint table showing the assignment of weightings and number of questions

		Content Areas				Number of Items
		1. Ontology (25%)	2. Seminal Tragedies and Harms (25%)	3. Prevalence (25%)	4. Vulnerability and Defense (25%)	
Manifestations	1 (58%)	10, 7	10, 7	10, 7	10, 7	40, 28
	2 (17%)	3, 2	3, 2	3, 2	3, 2	12, 8
	3 (17%)	3, 2	3, 2	3, 2	3, 2	12, 8
	4 (8%)	2, 1	2, 1	2, 1	2, 1	8, 4
Number of Items		18, 12	18, 12	18, 12	18, 12	72, 48

No content area was identified as being inherently more important than the others, so they were all equally weighted with a target of 12 final test items allocated to each one. An unequal distribution was chosen for the manifestations. The majority of the questions were associated with Manifestation 1, which is the intersection of Factual Knowledge and Remember from the Knowledge and Cognitive Process dimensions of the revised Bloom's Taxonomy, respectively. Manifestation 1 was chosen for the majority of the survey questions because it represents the least cognitively complex type of knowledge that could be assessed, which is appropriate considering this literacy test was administered to a lay population. Additionally, testing knowledge in this manifestation allowed for the use of efficient question groupings that reduced the cognitive load for the respondents, such as asking the respondent whether they recognize ten different synonyms for thought reform, yielding ten test responses with a single question prompt. Since Manifestation 1 was identified as the most important

manifestation subscale, it was prioritized for exceeding the 12 item quota for sufficient reliability suggested by Rust et al. (2021).

Appendix B shows the final test questions kept after the pilot survey, with supporting information including their content area, manifestation, and rationale for inclusion in the TRLQ-SDL. It should be noted that although the initial plan was to use facility and discriminant analyses to reduce the final survey length to exactly 48 questions with 12 in each content area and with question removals evenly distributed across the manifestations, these analyses yielded results that suggested a different final survey layout – keeping the questions with the strongest statistical properties and avoiding questions with weak statistical properties was prioritized over having a perfectly balanced questionnaire blueprint. More details about this process can be found later in this chapter in the section describing the analysis of the pilot survey data. Additionally, certain questions (such as the Jonestown question) were inherently important due to a lack of data in the research literature despite certain topics' legacy on thought-reform literacy, so some questions were going to be included in the final survey even if the pilot discriminant and facility analyses suggested they be removed.

Demographic Questions

The demographic questions included in this survey were designed to collect information on respondents' age, sex, race and ethnicity, subjective social status, and educational attainment – these are shown in full detail in Appendix A. These five demographic categories served as the predictor variables in this study. Although it did not serve as a predictor variable, the number of adults in the household was asked in a separate demographic question, as it was needed to calculate the probability of selection in the sampling frame so that the survey results could be weighted properly.

Survey demographic question design is important to ensure inclusivity and diversity is respected as well as to strengthen the integrity of the research (Hughes et al., 2016). Hughes et al. explain that when demographic questions are perceived as being too sensitive or do not respect the complexities of respondents' identities, response rates and the accuracy of responses can suffer. The demographic questions used in this study were adapted almost verbatim from Hughes et al.'s paper, with the exception of the age and sex questions.

Hughes et al. suggested using an open-ended question to collect respondents' ages. A multiple choice format was chosen instead for two main reasons. First, avoiding open-ended questions simplified data analysis by avoiding the collection of qualitative data. Second, asking for individual ages with an open-ended question would have presented a privacy problem, especially for those South Dakotan adults who were above the age of 85 — the anonymity set of older individuals can be small for those over the age of 85, increasing the risk of deanonymization for these older adults. To decrease this privacy risk, the item "86 or older" was included to encompass all ages above 85, a reporting convention that has been used by the US Census Bureau (refer to Table 1 in United States Census Bureau, n.d.).

A custom format for the age ranges was chosen. The starting age range of 18-25 was based on the fact that adolescent brain maturation does not stop until around age 25 (Arain et al., 2013) — given that other researchers have discussed the vulnerability of adolescents to psychological manipulation (Maté et al., 2009), it is appropriate for a thought-reform literacy survey to isolate the age range of 18-25 to ensure that all young adults still undergoing adolescent neurological development are represented in one group. Biological sex was chosen as a demographic variable instead of gender identity for the sake of statistical simplicity and to reduce survey length, although more thorough thought-reform literacy studies in the future

could include both to investigate if the differences in literacy rates between sex and gender are appreciable.

Including the Belief in Self-Vulnerability to Thought Reform Question

A belief question was included at the end of the questionnaire and served as an additional predictor variable. This question asked the respondent if they believed they could ever "be lured into a psychologically manipulative group or relationship." The inclusion of this question was important as it allowed for the comparison to and potential replication of findings related to a similar survey question asked in Maté et al.'s study of adolescents in Spain (2009). A core theory in the thought-reform education field is that those who are humble about their own vulnerability to the threat are more protected than those who assume they are invulnerable to brainwashing and cults (Atack, 2016; Hassan, 2018; Singer, 2003). Thus, a squared point-biserial correlation coefficient analysis was conducted with this predictor variable to determine if there was any correlation between belief in self-vulnerability and the degree of respondent thought-reform literacy, which provided quantitative evidence for the veracity of this theory.

Expert Review, Layperson Demos, and Pilot Survey

The finalization process of the TRLQ-SDL consisted of three components. The first involved external review by one thought-reform expert (Dr. Michael Langone) during the initial stages of the survey design and reviews by three other thought-reform experts (Dr. Alexandra Stein, Chris Shelton, and Jon Atack) in the final stages of the question design to ensure the content validity of the knowledge questions that were evaluated in the pilot survey. The first expert review identified problems with the difficulty of questions and produced

additional ideas for questions to be included which helped shape the final questionnaire. The second expert review stage revealed various distractors which needed to be changed, necessary rewording of several distractors, various rewordings in question stems for clarity, a whole question that was too difficult for laypersons, and a question which was factually incorrect. These issues were addressed by swapping out distractors for improved ones, rewording distractors and question stems, making the difficult question significantly easier for laypersons, and swapping the incorrect question for a correct one. Additionally, conversations with the dissertation committee suggested that, for the sake of clarity and to avoid controversy, it was a good idea to transition from the phrases "brainwashing" and "cults" to "psychological manipulation" and "psychologically manipulative groups" in the survey booklet, so this change was implemented to enhance reliability and reduce confusion among survey respondents.

The second component involved demoing the survey instrument with family members, colleagues, and friends to detect issues related to reliability, such as whether the instructions were clear enough and if there were any questions that were difficult for the average person to comprehend. The form used for this purpose is shown in Appendix L. Demoing the mail survey before the pilot survey can detect issues related to printing, packaging, and mailing of the survey materials. This second type of review was conducted in lieu of formal cognitive laboratory reviews, which are similar but more intensive (Fowler Jr., 2014). These informal reviews of the questionnaire revealed several issues with the usability and reliability of the draft survey instrument, including: that answer bubbles should be aligned top center instead of aligned center; periods and other visual indicators should be included to delineate answers; clustered answer groupings should be individually numbered; spacing should be used to

delineate instructions from answers more clearly; the wording of several questions needed improvement; certain aspects of the wording of the survey instructions and cover letter needed improvement; the estimated time to complete the survey should be included in the cover letter; and that the respondent should be instructed to include only the survey booklet in their return mail.

The last phase of the process was conducting the pilot survey and then using the initial findings to trim the survey length based on which questions had the best facility and discrimination, as discussed in (Rust et al., 2021). Rust et al. discuss the importance of including at least 50% more questions on the pilot survey compared to the final survey. Thus, approximately a third of the 72 pilot questions were removed for a final count of 47 knowledge questions on the final survey. The removals were based on both the discrimination and facility analysis as well as trying to keep the number of questions within each content area even. A target total of 73 pilot survey responses was sought for a strong discriminant analysis (one plus the number of pilot questions) (Rust et al., 2021), so the pilot survey mailings were based on this minimum target number of responses. These discriminant and facility analysis results are presented below in the Pilot Survey section in this chapter. Appendix C shows the final formatting of the final survey booklet as it appeared to survey respondents.

Addressing Validity, Reliability, and Bias

Validity refers to how well the survey measure reflects the true value being measured (Fowler Jr., 2014). Checking for validity is crucial for assuring that the researcher is measuring what they think they are measuring. Some methods for increasing survey validity when measuring subjective states such as individual knowledge include making the questions

as reliable as possible, ensuring the respondent will take the questionnaire seriously (known as face validity), and asking multiple questions that measure the same thing and then combining the results (Fowler Jr., 2014; Rust et al., 2021). The professionalism and serious tone of the survey communications as well as the posing of similar questions in the TRLQ-SDL questionnaire were design decisions intended to enhance validity. Content validity was strengthened by having the knowledge questions screened by thought-reform experts to detect issues with accuracy and appropriateness for a lay audience.

Reliability refers to how consistent a survey is at measuring what it is intended to measure in similar situations. In theory, if this survey instrument were administered twice under similar conditions, it should produce similar results regardless of who administers it. Some methods for increasing survey reliability include ensuring questions posed in questionnaires are free from grammatical errors; using simple vocabulary; defining complex terms such as "psychological manipulation" for the respondent; asking questions in complete sentences; ensuring the meaning of questions is consistent across all respondents; avoiding complex question designs (questions that ask for two or more pieces of information at once), among other tactics (Fowler Jr., 2014). The expert review and layperson demos were intended to strengthen the reliability of the survey instrument by addressing these types of issues.

Addressing bias concerns, also referred to as the psychometric principles of equivalence, is the requirement that survey tests be fair and free from bias (Rust et al., 2021). Rust et al. note that, depending on context, psychometric tests can be unfair based on group membership including disability, ethnicity, gender, and cultural, linguistic, and religious differences, among other aspects. The unfairness of a test result is most evident when biased test results are used to make decision about human beings (Rust et al., 2021).

Although bias is less of an immediate concern for this study than validity and reliability since the test results were not used to make determinations about specific survey respondents, it is important to minimize bias since the curriculum introduced here could be used for such determinations in the future. The questions were designed to use as simple English as possible, use respectful language when referring to the demographic groups, and to avoid using potentially offensive material except where it was unavoidable. Examples of the unavoidable use of potentially offensive material include all the mentions of brainwashing and psychologically manipulative groups, the ontology of which are historically controversial; the mention of traumatic events such as 9/11 and the Holocaust in the pilot survey, which could have offended or triggered some respondents; and the inclusion of offensive and incorrect distractors in the questions regarding cult members, which allowed survey respondents to consider and select options that blamed the victim. The negative aspects of these phrases and ideas are directly related to what this survey is intended to measure, so the controversial phrases and ideas could not be avoided. Instead, they were stated as neutrally as possible out of respect and to avoid unduly influencing participant responses.

Data Collection Procedures

Data collection procedures include the logistics of the mail survey, such as the layout of the survey, the survey cover letter, the types of paper and envelopes used, postage, and the mailing schedule, among other issues. Design principles from the literature on survey research were followed throughout the planning of these procedures, with most aspects planned based on the advice from (Dillman et al., 2014; Fowler Jr., 2014).

Mailing Schedule

Fowler notes that the most important difference between a well-executed mail survey and a poorly executed one is "the extent to which researchers make repeated contact with nonrespondents" (Fowler Jr., 2014). The mailing schedule consisted of four phases, as shown in Table 11. This mailing schedule was based on guidelines presented in (Dillman et al., 2014). Although it would have increased response rates further, no telephone or in-person interview follow-ups were performed after phase 4 to keep the time and monetary cost of the survey down. Since the timing of the dissertation final defense allowed for it, the waiting period before finalizing the data was extended past the suggestion of 7 days to 20 days, which allowed for the inclusion of several more survey responses.

Table 11

The four-phase, 54-day mailing schedule for this study

Phase	Wait Period before Next Phase	Description
1	3 days	Sent initial mail survey parcel to entire sample
2	17 days	Sent thank you and reminder postcards to entire sample
3	14 days	Sent additional copy of mail survey with letter emphasizing importance of high rate of return to nonrespondents
4	20 days	Sent one final reminder letter to nonrespondents before finalizing data

Total Survey Budget

A major determinant of the statistical power of this survey was the survey budget since the number of mail surveys was constrained by available funding and the number of mail surveys sent determined the sampling error. The final survey mailing included 500 sampled addresses and was based on the arbitrary chosen maximum sampling error of 0.0686 assuming a final 40% or greater response rate. Table 12 shows the final itemized costs for the

pilot and final survey. The whole survey cost of $8,004.12 was paid for using my (Rozario

Steinhagen's) personal funds.

The printing costs for envelopes and black and white printouts was less than 1 cent,

which is significantly cheaper than typical print shop prices and was available because a local

church volunteered the use of their printers at the actual printing cost with no markup. The

anticipated response rates were optimistic but reasonable estimates based on response rates

that have been achieved by other mail surveys, but the incremental response rates throughout

the mailing schedule were smaller than anticipated, which led to higher-than anticipated costs

for phases 3 and 4.

Table 12

Breakdown of the monetary expenditures for the survey

Survey Component	Cost
UPS personal mailbox rental to receive survey parcels	$157.98
Comprehensive list of USPS-deliverable South Dakota residential addresses	$2,454.27
Printing Costs	$136.48
Mailing Supplies	$377.45
Cash Incentives	$2,150.00
Postage Costs	$2,857.94
Returned Cash Incentives	-$130.00
Total Cost	$8,004.12

Layout of Survey

Appendix C shows the final layout of the mail survey booklet. Design principles for

mail surveys were followed during the construction of the survey booklet. These included

having a clear layout, attractive and consistent spacing of questions, easy-to-answer questions, colored paper (blue pastel paper was chosen for this purpose), visual cues for guidance, and evenly spaced answers to avoid influencing the responses, among other aspects (Dillman et al., 2014; Fowler Jr., 2014). Familiarity questions (those that did not have a single, objective answer) were grouped together and placed at the beginning of the survey. This placement was intended to help the respondent by putting interesting and easy-to-answer questions first, and to make the organization clear. Instructions delimited these familiarity questions from the knowledge questions, the latter which the respondent was told to give only a single answer which they believed was the correct one.

To minimize the risk of respondents systematically guessing test items, the answers to the questions were randomized to the greatest possible degree. Many question answers were not randomizable as there was a logical ordering to the answers or the randomization would only confuse respondents. The randomizable questions were randomized manually using die rolls, then an inventory was taken of which position answers appeared in. Questions were then modified to maximally spread the answers whose positions could be changed across the four positions.

Cash Incentives

A 2018 paper demonstrated that providing small cash incentives of $1 or $2 can decrease the overall cost of a mail survey due to the increases in response rate (which reduce the need for repeated contact) (Williams et al.). This survey included $2 cash incentives in both the initial mailing and the second mailing of the survey booklet in order to help maximize the response rate.

Survey Envelope

Appendix D shows an example manila survey envelope that contained the survey booklet and other contents of the mail parcel. A 2019 research article found that addressing respondents by name (the technique known as personalization) can actually harm response rates in a mail survey (Dykema et al., 2019). Considering the great cost in purchasing names with addresses from a list vendor and the potential for many of the name-address pairings to be incorrect or outdated, which could offend respondents, this study avoided personalization and instead used the general salutation "South Dakota Resident" on all correspondence. The survey parcels were mailed out in #12 envelopes, which are slightly bigger than #10s and allowed for the easy packing of the return envelope with the survey booklet, cover letter, anonymous postcard, and cash incentive. All papers were tri-folded by hand, ensuring that all survey materials came out of the envelope at the same time as the survey booklets.

Return Envelopes

All return mail was sent to a UPS personal mailbox rented for the duration of this study. This mailbox is shown in Appendix M. Return envelopes were included in the mail survey parcels and return envelope postage was prepaid in the form of stamps. Standard #10 envelopes were chosen for the return envelopes because they were cheap and the survey booklets fit easily inside. Appendix E shows an example return envelope that was used in this study.

Anonymous Postcards

Fowler discusses a method for allowing respondents to confirm they have completed the questionnaire without identifying which filled out survey is theirs (Fowler Jr., 2014). Green cardstock postcards addressed to the researcher were included in each survey mail

parcel and the respondent was instructed to send the postcard in the mail at the same time they sent the completed survey. Unique identifiers on the postcard revealed who had responded, with the lack of identifiers on the actual survey responses ensuring the anonymity of responses. Given the cost-effectiveness of postcards and the potential increases in response rates for protecting privacy, this postcard technique was utilized in this study. Appendix F contains an example anonymous postcard utilized in this study.

Survey Cover Letter

The cover letter included in the initial survey mailing can be found in Appendix G. The cover letter design and contents were inspired by the example mail survey cover letter provided in (Dillman et al., 2014, p. 374). Tactics for maximizing the response rate discussed in Dillman et al.'s text were followed, including asking for help, leveraging the scarcity principle, being professional, providing contact information, explaining how participating can be beneficial, explaining the potential benefits of the research results, and stressing the privacy protections that have been deployed to protect the respondent. The cover letter also explained the purpose of the unique identifier on the included postcard and stressed that survey responses will not be correlated with addresses, as suggested in (Fowler Jr., 2014). Although it was explored as an option, university letterhead could not be used for this project, which likely harmed response rates.

Thank You and Follow-Up Postcard

Due to the ideal timing of the follow-up postcard being a few days to a week after the initial mailing of the survey packet, there is not adequate time to wait for responses to come in and selectively prepare and send separate thank you and follow-up postcards to respondents

(Dillman et al., 2014). Thus, combining the thank you message with a follow-up reminder and sending the postcard to all respondents was an effective method to achieve both goals with one mailing. This was phase 2 of the mailing schedule. The thank you and follow-up postcard can be found in Appendix H.

Follow-Up Letters

Two different follow-up letters were used in this study – the first was the cover letter included with the second mailing of the survey booklet in phase 3 and the second was the last communication sent in phase 4. Design principles from Dillman et al. were followed in the design of these follow-up letters (2014), including being slightly more forceful, using similar but different content than the previous mailings, and mentioning more explicit benefits of the research, including how participating in this study could help prevent fraud, human trafficking, and terrorist incidents. These follow-up letters can be found in Appendices I and J.

Informed Consent Form

Appendix K shows the informed consent form sent with each copy of the survey booklet in both the pilot and final survey. This form was created in collaboration with Dakota State University's Institutional Review Board to ensure proper communication of the rights and freedoms of the research participants, such as their right to refuse the survey and to skip any questions while filling out the survey. This form also communicated the estimated time to complete the survey.

Procedures for Undeliverable Mail and Returned Cash Incentives

Researchers administering mail surveys must establish protocols for handling undeliverable mail and returned cash incentives. The United States Postal Service gives three

general reasons why mail is undeliverable: there was a change of residence by the household; there were errors in the mailing address; or the letter was refused or unclaimed (Dillman et al., 2014). Since a general salutation was used instead of specific respondent names, the first type of undeliverable mail was ignored, and failed deliveries suggesting forwarding were instead removed from the mailing list. The undeliverable mail due to address errors resulted in the associated addresses being removed from the mailing list – these were likely faulty addresses sampled from the comprehensive address list. The rejected mail was taken out of the mailing schedule to save money and to honor the rights of the respondents who actively refused the mail (Dillman et al., 2014). Most of the undelivered mail parcels were associated with vacancies, which was unsurprising considering the South Dakota vacancy rate of 10.9% mentioned earlier in this section.

An additional concern is tracking returned cash incentives (Dillman et al., 2014). If a mail survey is funded by external sources, accounting for all of the monetary incentives may be crucial. Although the cash incentives were personally supplied in this study, they were accounted for and reported.

Data Analysis Plan

It is crucial to have a sound data analysis plan prior to the collection of any survey data. Planning every step of the data analysis helped ensure that the objectives of the study were met and that data collection and analysis proceeded smoothly. This section starts with a discussion of the main statistical results that were sought from the questionnaire and then discusses sample size determination, presents a general description of each data analysis step

that was performed, and concludes with the statistical issues that are unique to survey designs, such as nonresponse bias.

Statistics Desired

Although various statistics could be derived from thought-reform literacy questionnaires in general, the TRLQ-SDL was designed to obtain specific statistics. Table 13 shows the main statistical results gathered in this study. All of these statistics were inferential, meaning their purpose was to estimate the corresponding true parameter value for the entire population of South Dakotan adults. A bar plot was prepared for each test question, showing the breakdown of distractors that were selected. Bar plots were also prepared for each predictor variable showing the distribution of respondent characteristics. Lastly, 7 correlation statistics regarding the influence of predictor variables on test scores, as well as 5 average literacy score statistics, made up the remainder of the core statistics presented in this study. The proportion of the sample that answered each test question affirmatively or correctly was used to produce novel statistics such as the estimated proportion of the South Dakotan adult population that had heard of Jonestown or knew that human trafficking occurs within the state.

Table 13

Table showing the primary statistical measures that were analyzed in this study

Statistical Result	Type, Unit, Range	Plain English Description
Literacy Scores		
Composite Literacy Score		This is the average literacy score across all 4 content areas for the entire sample
Content Area 1 Literacy Score		This is the average literacy score in content area 1 for the entire sample
Content Area 2 Literacy Score	Mean or Median, Percentage (%) or Integer, 0 - 100	This is the average literacy score in content area 2 for the entire sample
Content Area 3 Literacy Score		This is the average literacy score in content area 3 for the entire sample
Content Area 4 Literacy Score		This is the average literacy score in content area 4 for the entire sample

Statistical Result	Type, Unit, Range	Plain English Description
Individual Question Distributions		
Test Question Results	Bar plot, Percentage (%), 0 - 100	Breakdown of which answers were selected for each test question
Predictor Variable Results		Breakdown of predictor variables for the respondents
Influence of Demographic Variables		
Correlation between age and composite literacy scores		Percent of variance accounted for by the age variable
Correlation between educational attainment and composite literacy scores		Incremental percent of variance accounted for by the educational attainment variable
Correlation between subjective social status and composite literacy scores	Test of Association, Multiple Regression Coefficients (Model R^2 and ΔR^2), 0-1	Incremental percent of variance accounted for by the subjective social status variable
Correlation between race and ethnicity and the composite literacy scores		Incremental percent of variance accounted for by the race and ethnicity variable
Correlation between sex and composite literacy scores		Incremental percent of variance accounted for by the sex variable
Correlation between sex and composite literacy scores		Percent variance of test scores accounted for by the sex variable
Correlation between self-reported vulnerability and composite literacy scores	Test of Association, Point-Biserial Correlation Coefficient (r_{pb}), 0-1	Percent variance of test scores accounted for by belief in self-vulnerability to thought reform

Multiple regression was chosen to conduct the tests of association because the procedure could be used to analyze the relationship between nominal- and ordinal-scale variables like the demographic variables and an interval-scale variable like the composite test scores on an achievement test like the TRLQ-SDL. Multiple statistical assumptions underlie multiple regression analyses, including independence of observations, adequate sample size, normality of the predictions, homogeneity of variance, independence of errors, linearity of the correlations, absence of multicollinearity, absence of outliers, and absence of interaction (Hatcher, 2013). Hatcher notes that the most serious concern when assessing a multiple regression model is to ensure outliers do not bias the results. Thus, an outlier analysis was performed for the hierarchical multiple regression model before assessing the other assumptions; since no statistically significant results were found for the five demographic predictor variables after removal of the outliers, the remaining assumptions were not investigated further since there were no statistically significant results to report. The aforementioned outlier analysis is described in detail in Chapter 5 of this study.

Not all possible statistical results were sought in this study. For instance, analysis of composite manifestation scores was excluded because the manifestations are of unequal size (making them harder to directly compare) and their analyses would not be as important as analyzing the composite content areas of the questionnaire. Although the influence of demographic variables could have been analyzed with regard to each of the four content areas of the questionnaire and each individual question (e.g., analyzing whether older people tend to recognize the Jonestown massacre more often than young people), these analyses were excluded to keep the scope of the study focused and manageable as there would have been hundreds of interactions to sift through and analyze.

Calculating Needed Sample Size

The target sample size for a survey study is dependent on many factors and must be made on a per-study basis (Fowler Jr., 2014). Fowler mentions common misconceptions about the desired sample size, including the notion that there is some minimum proportion of the target population that needs to be sampled, or that the size of the population is important, when really their impact on whether the sample adequately describes the population is negligible. Additionally, Fowler notes that a common mistake is determining the target sample size based on a single precision estimate for the entire survey. This is due to multiple factors, including: the unreasonableness of using a single statistical measure to determine the sample size; the fact that only in rare cases "a specific acceptable margin for error can be specified in advance"; and there are other error sources that must be mitigated that are unrelated to the sample size (Fowler Jr., 2014, p. 38).

Despite the preceding caveats, the data analysis plan still helped inform the target sample size decision (Fowler Jr., 2014). For instance, concentrating on the "smallest

subgroups of importance" within the study – which in this study would be the different demographic groups, such as age ranges, sex, and educational attainment – helped determine the "minimum sample sizes that can be tolerated" for those subgroups (Fowler Jr., 2014, p. 39). Table 14 shows the estimate for each demographic variable for South Dakotan adults, pulled from several outside data sources (America Counts Staff, 2021; Data USA; United States Census Bureau, 2021). It is important to note that the percentages for race/ethnicity do not add up to 100% since overlap among categories is possible. Subjective social status was estimated based on poverty and income data with the following convention: income below $20,000 was considered "poor" (the percentages in this income bracket summed to be approximately equal to the poverty rate for South Dakota); income between $20,000 and $60,000 (the latter of which was the median income for South Dakotan households) was considered "working class"; income between $60,000 and $200,000 "middle class"; and income above $200,000 was considered "affluent."

Table 14

The estimate in % and approximate number of South Dakotan adults that fall under each demographic category (total population = 674,755)

Demographic Category	Percentage (%)	Approximate Number (n)
Age		
18-25	14.03	94,673
26-35	17.12	115,500
36-45	15.32	103,400
46-55	14.55	98,200
56-65	17.24	116,300
66-75	12.61	85,100
76-85	6.17	41,620
86 or older	2.95	19,962
Sex		
Female	49.7	335,397
Male	50.3	339,358

Demographic Category	Percentage (%)	Approximate Number (n)
Other	N/A	N/A
Race/Ethnicity		
Native American	11.1	74,898
Asian	2.1	14,170
Black or African American	3.0	20,243
Hispanic	4.4	29,689
Middle Eastern or North African	N/A	N/A
Native Hawaiian or Pacific Islander	0.2	1,350
White	85.7	578,265
Other	N/A	N/A
Subjective Social Status		
Poor	12.3	82,995
Working Class	37.83	255,260
Middle Class	45.42	306,474
Affluent	4.45	30,027
Highest Educational Attainment		
Less than high school diploma	9.73	65,675
High school diploma or equivalent	29.92	201,900
Some college or vocational training	22.94	154,800
Associate's Degree	10.92	73,700
Bachelor's Degree	18.82	127,000
Master's or Specialist Degree	6.65	44,840
Doctorate Degree	1.01	6,840
Other	N/A	N/A

Note. Some age estimates are off by a few years because reference data had different ranges – e.g., estimate for ages 18-25 is 2020 census data for ages 20-24 plus the remainder adult population not covered in the other ranges, estimate for ages 26-35 is census data for ages 25-34, etc... Subjective social status was estimated from income and poverty data using arbitrary cutoff points and without considering household size or non-income capital in order to simplify estimates.

Estimates of sampling error begin with estimating sampling error if the study utilized a simple random sample, and then analyzing effects of deviations from the paradigmatic simple random sampling design (Fowler Jr., 2014). Since this study utilized a simple random sample, the standard error of an estimated percentage (e.g., the proportion of a characteristic, such as sex, that the sample has) is calculated as follows (Fowler Jr., 2014):

$$SE = \sqrt{\frac{p(1-p)}{n}}$$

SE is the standard error, *p* is the proportion of the sample that has the characteristic, and *n* is the sample size. The *p(1-p)* term is the variance and is maximized when *p* = 0.5 (Fowler Jr., 2014). This means that for a demographic characteristic like sex, the standard error can be expected to be close to maximum for any given sample size. Likewise, all demographic characteristics with *p* < 0.5 were expected to have comparatively smaller sampling errors for the same sample sizes. For 95% confidence intervals, it is plausible that the true population value is expected to be between ±1.96*SE of the sample mean.

Table 14 shows that the demographic variable closest to a 50% proportion is the sex variable – setting *p* to 0.5 estimated the maximum sampling error for any given sample size *n*. Although choosing a sample size based on just the sampling error of the sex variable is arbitrary, this strategy was utilized because it was convenient to know that all other variables were expected to have sampling errors equal to or less than the sample distribution of respondent sex. Setting SE to 0.035 (i.e., there is 95% confidence that the true population value of sex proportion is within approximately ± 6.86% of the sample mean percentage). Thus, the target minimum sample size for this study was calculated as:

$$0.035 = \sqrt{\frac{0.5(1-0.5)}{n}}$$

$$n = 204$$

Thus, 204 or more survey responses were desired to ensure the target standard error of 0.035 was met for all demographic variables. Dividing this chosen sample size by the expected response rate of the mail survey helped estimate the number of mail parcels that need to be mailed to meet this target sample size (this was discussed in an earlier section).

Data Analysis Steps

This section details the mathematical calculations that were used to obtain the desired statistics and other important values such as reliability estimates. This data analysis plan was inspired by the content in the book *Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results* (Hatcher, 2013).

Data Entry and Item Coding

Two kinds of error are possible during the preparation of survey data for analysis – coding decision errors related to inconsistent or misapplications of the coding rules being used and data entry errors where incorrect values are recorded in the data file (Fowler Jr., 2014). The data from the mail surveys were keypunched by hand into Microsoft Excel and then imported into R Studio. Incoming surveys were numbered by hand with a serial identifier to aid the unique identification of each record. Double entry was conducted to help prevent and detect keying errors.

The specific function of the data analysis software being used can influence which coding practices are practical – for example, some software packages do not interpret blanks as zeros, so the researcher may have to manually type zeros rather than use blank fields (Fowler Jr., 2014). A code can be used for missing items due to nonresponse to differentiate them from zeros – in this study, an "NA" value indicated an item that was not responded to, or where it is not possible to distinguish a single unambiguous answer from the respondent (e.g., when they select all the bubbles in a multiple choice question or answered both true and false). Binary questions (those with yes/no or true/false answers) were coded "0" for a no or false response and "1" for a yes or true response. Some questions featured a general "manipulation doesn't exist" answer that was unique and separated from the other distractors – when a respondent selected this special response, each question it was associated with was

given the special value "MDE". For all other multiple choice answers, the answers were coded sequentially starting with the value "1" and going up to "4" depending on the number of possible answers. This data coding scheme allowed for the distractors to be distinguishable from each other when creating individual question bar plots showing how often respondents selected which distractors. A codex was created and then used to calculate the composite literacy scores by comparing each answer with the codex and adding up all correct answers for each respondent to calculate their final score.

The sex variable was coded as zeros indicating men and ones indicating women. The number of adults living in the household was the actual integer given by respondents since it was a ratio-scale variable. The "I prefer not to answer" option in the demographic questions was treated as item nonresponse with value "NA". Race and ethnicity categories were dummy-coded into eights vectors with the White category being the reference value of zero (the eight vectors were the six non-White race types plus the "Other" and "Mixed" categories). Educational attainment, subjective social status, and age were all staircase coded. The 11 categories of the educational attainment variable were collapsed down to 7 categories during data entry by combining similar responses. The educational attainment response "Other" was ignored due to the difficulty in interpreting what education level this would correspond to without following up with each respondent who gave this answer.

Frequency Bar Plots

Dozens of frequency bar plots were prepared as the first step of data analysis and can be found in Chapter 4. These included one bar plot for each of the demographic variables, one for the belief in self-vulnerability to thought reform, and one for each literacy question or group of questions sharing the same question stem. These bar plots were used to gain a

preliminary understanding of the distribution of the predictor variables as well as the relative frequencies for all the collected data.

Frequency Histograms

Five frequency histograms (one for the composite literacy scores and four for the content area literacy scores) were created to estimate how close the survey results were to a normal distribution. Frequency histograms help the researcher visualize how close to a perfect normal distribution their data is and whether a variable displays negative or positive skew (Hatcher, 2013). Skewness and kurtosis statistics were calculated for each of these five score distributions, as most did not appear to have normal distributions and the sample size was less than 200, increasing the risk of assuming normality when presenting the literacy statistics. These calculations are presented in Chapter 4.

Measures of Central Tendency

The three main measures of central tendency – mean, median, and mode – are only appropriate under certain conditions (Hatcher, 2013). The following determinations for which measures of central tendency were used were based on the guidelines given by Hatcher. The mean is only appropriate for interval or ratio scale variables that have a normal distribution, so was calculated for the composite literacy scores (as its distribution was almost normal), but mean was not calculated for the demographic variables or the content area literacy score distributions. Median is appropriate for ordinal variables or for interval variables that have a skewed distribution – thus, medians were calculated for the age, educational attainment, and subjective social status demographic variables as well as for the content area literacy score

distributions. Mode is the best measure of central tendency for nominal variables, so mode was calculated for the sex and race and ethnicity variables.

Measures of Variability

Interquartile range is more robust compared to range as a measure of variability as the former is more resistant to the influence of outliers and skewness. Boxplots are used to understand the presence of outliers and extreme values in a distribution, and are built from the interquartile range, medians, and range. Boxplots were provided in Chapter 4 for the literacy scores distributions as their skewness and kurtosis statistics suggested they deviated from normal distributions. Standard deviation is appropriate for interval-scale variables that are normally distributed, so was calculated for the composite literacy score distribution, as it was the only score distribution that was approximately normal. Both sample standard deviation (S) and the unbiased estimate of the population standard deviation (s) were reported.

Calculating Internal Reliability

Multiple-item scales – such as the literacy scores in this study – have strong internal-consistency reliability when "scores from the individual items constituting that scale display strong correlations with one another or with the total scale score" (Hatcher, 2013, p. 87). Hatcher notes that coefficient alpha is routinely used to estimate reliability and it was the chosen method for estimating the internal reliability of the TRLQ-SDL. For an ability test such as the literacy instrument used in this study, a coefficient alpha between 0.80 and 0.90 is desirable (Rust et al., 2021, p. 41).

Standardization

Standardization of the literacy scores would involve converting the composite test scores into z scores, where the mean score is 0 and the standard deviation is 1 (Hatcher, 2013). The distribution of composite literacy scores was almost normal in skewness (when ignoring outliers) but its kurtosis statistic was statistically significant even with outliers removed. Thus, the statistical assumption necessary for standardization (that the frequency distribution for the composite literacy scores is normal) was not met, so interval estimates based on area under the normal curve were not reported.

Significance Tests, Confidence Intervals, and Effect Size

Significance tests, confidence intervals, and effect size are three of the most common results reported in quantitative research studies (Hatcher, 2013). Hatcher notes that significance tests are focused on providing information about probability and typically take the form of null-hypothesis significance tests. The significance level of this study was set to the standard value of $\alpha = 0.05$. Since all of the hypotheses investigated in this study are null hypotheses, statistically significant results will occur when the calculated p value for a statistic is smaller than alpha, or $p < \alpha$.

Type I and Type II errors may occur when conducting null hypothesis tests. Type I errors are false positives (statistical significance is reported when the results are not statistically significant), and for comparison-wise Type I error (such as the estimate of the population's composite literacy score) their probability of occurrence is equal to α. Type II errors are false negatives and occur when statistical significance is not reported when the results were significant (Hatcher, 2013). Hatcher notes that Type II errors can be mitigated by ensuring the significance level is high enough in the study and using a large enough sample, among other techniques.

Confidence intervals communicate precision of calculated estimates and consist of an upper and lower limit with some likelihood that the sample's confidence interval is one of the infinitely many possible confidence intervals (based on the sample) that contains the true population parameter (Hatcher, 2013). Confidence intervals help with determining statistical significance, with significance being reported "if the population parameter described in the null hypothesis is outside of the obtained confidence interval" (Hatcher, 2013, p. 152). All confidence intervals reported in this study were 95% confidence intervals.

The effect size indicates the "strength of the relationship between predictor variables and criterion variables" (Hatcher, 2013, p. 161). Hatcher notes that effect size is important because statistically significant findings can be trivial if the effect size is small. The variance accounted for indices (the r family) were used as they are appropriate for calculating the proportion of variance between criterion and predictor variables in correlational studies such as this one. The squared point-biserial correlation coefficient (r_{pb}^2) is appropriate for a dichotomous predictor variable, so was used to determine the effect size of the influence of respondent sex and belief in self-vulnerability on composite literacy scores. The squared multiple correlation coefficient (R^2) is used in multiple regression and signifies the "percent of variance in the criterion variable that is accounted for by the linear combination of predictor variables" (Hatcher, 2013, p. 257). The R^2 results estimated the percent of variance in composite literacy scores accounted for by the five demographic variables used in the hierarchical multiple regression analysis.

Coding the Data for Multiple Regression

Dummy coding is the process by which categorical, nominal-scale variables are transformed so that they can be included in a multiple regression analysis (Hatcher, 2013).

Sex was treated as dichotomous in both the point-biserial correlation analysis and the hierarchical multiple regression analysis since no respondent selected the "Other" response for biological sex. Thus, one dummy vector for "female" was used to analyze the influence of the sex variable, with "male" serving as the reference category. Variables with a greater number of possible values (such as the seven possible categories of race and ethnicity) required a number of vectors equal to the number of values present in the sample minus 1 (Hatcher, 2013). Since there were three distinct non-White ethnicities in the sample (Native American, Hispanic, and Hawaiian or Pacific Islander), and an additional category was necessary for those of mixed race, a total of four vectors were used for the race and ethnicity variable, with White serving as the reference category.

Ordinal-scale variables such as age, educational attainment, and subjective social status can also be coded for use in a multiple regression analysis. Several options exist for coding these. Although many researchers just treat ordinal-scale variables as interval-scale during multiple regression (Regorz Statistics, 2021), this technique assumes the differences between each category is constant, which is most likely not the case for the three ordinal-scale demographic variables in this study. Another technique which is similar to the coding process for nominal-scale variables is using staircase coding, which allows for the analysis of differences between each value in the ordinal-scale variable (Regorz Statistics, 2021). The first level is coded with all 0s (as the reference variable), the second level starts with a single 1, and each progressive category has an additional 1 with the last category having all 1s. Age and subjective social status were coded with the same number of levels as there are values, and educational attainment was collapsed into seven values (less than high school, high school or equivalent, some college, associate's, bachelor's, master's or specialist, and

doctorate or equivalent). Staircase coding has some drawbacks, including a high number of

degrees of freedom which reduces statistical power, a reduced likelihood of finding statistical

significance, and the problem of overfitting. Despite these weaknesses, staircase coding was

chosen for its simplicity and to avoid the pitfalls of treating ordinal-scale variables as interval-

scale.

Hierarchical Multiple Regression and Point-Biserial Correlation

Multiple regression with hierarchical entry is a variant of multiple regression that

allows for the inclusion of nominal- and ordinal-scale predictor variables (Hatcher, 2013).

Hatcher explains that the variables are added into the hierarchical multiple regression analysis

step by step, and that it is crucial that the order in which this is done is predetermined by the

researcher. The following order was predetermined for the demographic variables when

constructing the multiple regression model: age, educational attainment, subjective social

status, race/ethnicity, and sex. The ordering of these variables was mostly arbitrary, although

the literature review indicated that adolescents (those below the age of 26) may be more

vulnerable to thought reform, suggesting that age may be a crucial demographic factor for

thought-reform knowledge – thus, age was chosen for step 1. Sex was included last because

its dichotomous nature allows for a separate analysis with the squared point-biserial

correlation coefficient, thus it was the lowest-priority inclusion in the multiple regression

model.

Statistical Issues Unique to Survey Design

There are four main analytical considerations for researchers to address in survey

designs: adjusting for nonresponse, dealing with items that were not answered, utilizing

weighting to adjust for different probabilities of selection, and calculating the influence of

sample design on statistical calculations (Fowler Jr., 2014). Since this survey will utilize a simple random sample, the influence of sample design on the statistical calculations was minimal. This section discusses the other three concerns.

Survey Nonresponse Rate

Survey nonresponse error occurs when a high percentage of people in the sample do not respond to the survey (Fowler Jr., 2014). Nonresponse is influenced by the people who refuse to fill out the survey, people who are excluded from the sampling frame, and people who would have filled out the survey but have some situational, physical, or mental limitation which precludes their participation (Fowler Jr., 2014). It is anticipated that approximately 10.9% of all the mail surveys sent were mailed to vacant housing units – thus, the actual nonresponse rate that could result in error is less than the nonresponse rate before considering the vacancy rate. This adjusted nonresponse rate is discussed in more detail in Chapter 5.

There is no universal consensus when it comes to acceptable response rates for a survey, although certain stakeholders such as the U.S. government may have strict requirements (Fowler Jr., 2014). Fowler notes that the nature of the bias introduced by nonresponse may change depending on the particular survey and survey medium – for instance, it has been observed that mail surveys with low response rates tends to be biased with regard to the purposes of the research – in other words, those who respond to the thought-reform survey may be statistically more likely to be interested in issues related to thought reform compared to those who do not respond. Availability concerns are less prominent for mail surveys compared to telephone or in-person interview surveys because there is no set time of day the respondent must engage with the survey (Fowler Jr., 2014). The relation between response rate and nonresponse bias is not clear, as one study found a

relatively weak correlation (0.33) between the two and the nonresponse error can vary

significantly between different variables (Fowler Jr., 2014). Fowler notes that the most

significant concern is whether the nonresponse bias impacts the values the survey is designed

to estimate.

It is usually too difficult and costly to directly measure the effect of nonresponse bias

in a survey – instead, researchers should aim to reduce nonresponse bias with sound survey

procedures (Fowler Jr., 2014). Example tactics utilized in this study included repeated contact

with nonrespondents, attractive and professional surveys, clear layout, and easy-to-read

questions – these were discussed in the section on data collection procedures. An overall

nonresponse bias estimate was calculated for the entire study, but no detailed nonresponse

analysis was conducted.

Fowler discusses the pros and cons of weighting the survey results based on

differences between the population demographic characteristics and the sample

demographics, but this can make statistical estimates less accurate if nonrespondents with the

weighted characteristics differ significantly from respondents (2014). Since determining the

extent to which nonrespondents differ from respondents is outside the scope of this survey, no

nonresponse weighting was performed. Although the impact of the nonresponse rate is

discussed in general in Chapter 5, in reporting the statistical findings of this study it was

assumed that there were no significant differences between respondents and nonrespondents.

Item Nonresponse

Item nonresponse occurs when respondents leave some portion of the survey questions

unanswered or provide ambiguous answers that cannot be coded (Fowler Jr., 2014). Fowler

discusses that when an item's nonresponse rate is 5% or lower, the potential for item

nonresponse bias is minimal and substituting the average response for the missing responses is appropriate (2014). More advanced methods for imputing missing data were not utilized in this study.

Different Probabilities of Selection

The survey results were weighted to account for the unequal probabilities of South Dakotan adults being selected among households of different sizes. All survey responses were weighted by multiplying the response by the number of adults in the household of the respondent (Fowler Jr., 2014). The weights were all positive natural numbers and can be interpreted as the number of times each corresponding data record was represented in the data analyses that allowed for inclusion of weighted averages, such as the mean composite literacy score calculation. The following is the basic formula that was used to weight the survey responses (where r is the survey result being weighted, n is the number of records in the sample, and w is each record's weight):

$$Weighted\ Average = \frac{\sum_{i=1}^{n} r_i * w_i}{\sum w_i}$$

Ethical Assurances and IRB Approval

There are many ethical considerations when planning and conducting research (Creswell, 2014; Fowler Jr., 2014). Issues identified by Creswell and Fowler that are relevant to this study include: obtaining Institutional Review Board (IRB) approval for the study; being transparent with respondents as to the purposes and benefits of the study; ensuring the research problem will benefit respondents; not deceiving respondents; not unduly influencing respondents to participate in the study; avoiding the collection of harmful information;

respecting privacy and anonymity; ensuring all respondents are treated equally; not engaging in research misconduct; and clearly communicating data retention plans and who owns the data from the study.

The cover letter and follow-up letters describe the purposes and benefits of participating in the study, including that the benefits are largely future potentials rather than immediate. The $2 cash incentive included with each mailing of the survey booklet is standard practice and was not so large as to prevent respondents from feeling like they can voluntarily respond to the survey (Fowler Jr., 2014). Although the survey instrument deals with a controversial topic, the data collected is focused on general knowledge of thought reform and literacy scores are not directly tied to individual identities – thus, issues related to the risk of vengeance due to focusing on particular cultic groups is largely avoided and the literacy results cannot be used by malicious actors to tailor their thought-reform programs to the vulnerabilities of specific respondents.

Privacy and anonymity were protected by avoiding the collection of survey respondent names and decoupling unique identifiers from completed survey instruments (Fowler Jr., 2014). The lack of respondent names in the mail list that was purchased for this study as well as the use of the anonymous postcard accomplished these goals. Identical survey mailings were distributed to every respondent. The data collected in this study is owned by Dakota State University and will be stored for at least 5 years (or longer at the discretion of DSU) and will then be destroyed. When the mailing schedule concluded, the mail address list used was destroyed to further protect respondent identities.

This study was reviewed by the Institutional Review Board at Dakota State University before the beginning of the pilot survey and received approval on March 7, 2024, after

expedited review. A request for continuing review was made to modify the survey protocol to its final form and received approval on April 25, 2024, after expedited review.

Pilot Survey

The pilot consisted of only phases 1 and 2 of the mail schedule; the phase 1 parcel was sent on Tuesday March 12, 2024, and the phase 2 reminder postcard was sent on Friday March 15, 2024. Only mail parcels received on or before Friday March 29, 2024, were included in the pilot survey analysis. A total of 183 mail parcels and reminder postcards were sent, and 37 people responded to the pilot survey. Thus, the response rate for the pilot survey was 20.2%. This response rate estimate rises to approximately 22.7% after adjusting for the vacancy rate of South Dakota.

Four recipients returned blank survey booklets and were not included in the pilot data analysis. A total of four pilot mail parcel envelopes were returned because they were undeliverable or had other reasons for not reaching recipients. Returned pilot cash incentives totaled $20 – $8 from the undelivered mail parcels and $12 from six people who returned them, five of whom were nonrespondents. One return envelope came back with nothing inside. One individual mailed a note stating they were interested in the survey but that the original survey booklet was discarded, and seven survey responses came past the two week deadline – a replacement survey was not sent since the pilot only consisted of phases 1 and 2, and the late responses were not included in the data analysis.

Utilizing double entry caught 6 data field errors which were corrected. The methodology for addressing item nonresponse with data imputation was as follows. First, mean imputation was used to fix a single weight nonresponse field and several questions

where there was a single person who did not respond. A total of 31 test questions were mean imputed due to item nonresponse less than or equal to 5%; 33 other test questions could not be fixed with mean imputation due to higher than 5% nonresponse. Remaining nonresponse values were treated as incorrect responses when calculating the discriminant and facility scores for each test question. Other methods for data imputation were explored but could not be used due to high collinearity in the data – indicating that many questions were redundant. This was apparent in the Manifestation 1 portion of the questionnaire, where many questions had little variation in responses (i.e., poor facility scores and undefined discrimination).

Facility and Discriminant Analysis – Pilot Survey

Although the target sample size of 73 was not reached during the pilot survey, it was still appropriate to use the collected data to help inform shaping the final survey (Rust et al., 2021). Table 15 shows the facility and discriminant analysis results from the pilot survey. Facility scores represent the proportion of respondents who answered each question correctly – effective questions do not have extreme scores (close to, or equal to, 0.0 or 1.0). Discriminant correlations represent the relation between respondents answering a question correctly and how well they performed on the remainder of the knowledge assessment – effective questions have larger, positive correlations. Lower *p* values indicate that the observed correlation is less likely to be due to sampling error compared to higher *p* values. Standard errors are reported but are not a focus of the pilot survey analysis since there is little variation in the range of the standard errors – thus, it was the *p* values and observed correlations that determined which questions were removed.

Table 15

Pilot Facility and Discriminant Results

Question	Facility	Discrimination			
		Correlation	Std.err	t.value	p.value
Recognize Terms (Ontology)					
Brainwashing	0.973	0.675	0.125	5.405	4.70E-06
Coercion (*)	0.946	0.011	0.169	0.064	0.950
Coercive Control	0.487	0.114	0.168	0.678	0.502
Gaslighting	0.838	0.126	0.168	0.753	0.457
Mind Control (*)	0.973	-0.091	0.168	-0.539	0.593
Psychological Abuse	0.892	0.468	0.149	3.132	0.003
Psychological Manipulation	0.838	0.154	0.167	0.920	0.364
Radicalization	0.676	0.464	0.150	3.099	0.004
Thought Reform	0.459	0.279	0.162	1.722	0.094
Undue Influence	0.784	0.381	0.156	2.440	0.020
Historical Tragedies (Harms)					
Boarding School Era	0.919	0.605	0.135	4.501	7.18E-05
Holocaust (*)	1.0	NA	NA	NA	NA
MK-ULTRA	0.703	0.132	0.168	0.788	0.436
Manson Family	0.973	0.675	0.125	5.405	4.70E-06
Patty Hearst	0.811	0.236	0.164	1.438	0.159
Jonestown	0.946	0.660	0.127	5.196	8.86E-06
Waco	0.973	0.675	0.125	5.405	4.70E-06
Aum Shinrikyo	0.243	0.279	0.162	1.722	0.094
Heaven's Gate	0.378	0.204	0.165	1.232	0.226
9/11 (*)	1.0	NA	NA	NA	NA
Ontology					
Manipulation Exists (*)	0.973	0.077	0.169	0.454	0.652
Isolation (*)	0.973	0.077	0.169	0.454	0.652
Fear (*)	1.0	NA	NA	NA	NA
Environment Control	0.946	0.359	0.158	2.275	0.029
Force/Deception	0.757	0.303	0.161	1.879	0.069
Influence Paradigms (*)	0.730	-0.175	0.166	-1.053	0.299
Parts of Mind Influenceable	0.622	0.121	0.168	0.723	0.475
How Manipulation Works	0.757	0.104	0.168	0.620	0.539
Harms/Tragedies					
Physical Harm	0.784	0.242	0.164	1.472	0.150
Mental Harm (*)	0.973	-0.174	0.166	-1.044	0.303
Financial Harm	0.865	0.272	0.163	1.670	0.104
Cult Leader	0.162	0.176	0.166	1.058	0.297
Manipulation Always Negative (*)	0.568	-0.106	0.168	-0.632	0.532
Children Being Harmed (*)	1.0	NA	NA	NA	NA
Why Participate (*)	0.324	-0.013	0.169	-0.078	0.938
Why Not Leave (*)	0.378	-0.217	0.165	-1.312	0.198

Question	Facility	Discrimination			
		Correlation	Std.err	t.value	p.value
Prevalence					
Business Training Programs	0.865	0.446	0.151	2.947	0.006
Families	0.946	0.672	0.125	5.367	5.27E-06
Grooming	0.865	0.556	0.140	3.959	3.51E-04
Internet Communities (*)	1.0	NA	NA	NA	NA
Multi-Level Marketing	0.865	0.154	0.167	0.921	0.363
Political Movements	0.892	0.675	0.125	5.415	4.56E-06
Religious Movements	0.892	0.773	0.107	7.219	1.99E-08
Romantic Relationships	0.919	0.410	0.154	2.661	0.012
Schools/Universities	0.865	0.199	0.166	1.204	0.237
Therapy/Life Coaching	0.919	0.450	0.151	2.982	0.005
Human Trafficking in SD	0.973	0.290	0.162	1.792	0.082
Manipulation in USA (*)	1.0	NA	NA	NA	NA
Manipulation in Democracies	0.892	0.441	0.152	2.905	0.006
Manipulation in Totalitarian Regimes (*)	0.919	0.003	0.169	0.018	0.986
PMG Size (*)	0.324	0.002	0.169	0.014	0.989
PMG Count (*)	0.270	0.079	0.168	0.471	0.640
Number of Affected People	0.378	0.416	0.154	2.705	0.010
Manipulation in Politics (*)	0.919	0.145	0.167	0.864	0.393
Defense and Vulnerability					
Children Under 13 (*)	1.0	NA	NA	NA	NA
Teenagers (*)	1.0	NA	NA	NA	NA
Adults Below 65	0.973	0.675	0.125	5.405	4.70E-06
Adults Over 65 (*)	1.0	NA	NA	NA	NA
Lawyers	0.892	0.561	0.140	4.008	3.05E-04
Medical Doctors	0.946	0.672	0.125	5.367	5.27E-06
Mental Health Professionals	0.946	0.672	0.125	5.367	5.27E-06
Military Personnel	0.973	0.191	0.166	1.152	0.257
Politicians (*)	1.0	NA	NA	NA	NA
Professors (*)	1.0	NA	NA	NA	NA
Learning As Defense	0.946	0.260	0.163	1.590	0.121
Humility As Defense (*)	0.730	0.073	0.169	0.433	0.668
Privacy as Defense	0.973	0.171	0.167	1.029	0.310
Terrorist Recruitment of Professionals	0.892	0.570	0.139	4.100	2.34E-04
Legal Protections	0.703	0.475	0.149	3.191	0.003
Most Commonly Recruited	0.378	0.306	0.161	1.905	0.065
Who is Vulnerable	0.811	0.458	0.150	3.044	0.004
Defense Ontology	0.649	0.203	0.166	1.224	0.229

Note. (*) values in the Question column indicate the question was removed from the final survey. NA values for discrimination scores indicated that all respondents responded the same

for that question, making it impossible to calculate a discrimination score. Questions are listed in this table in the order they appeared in the pilot survey. Question titles are meant to be concise descriptors of what the question measured – detailed information about both the final questions and questions cut from the pilot survey can be found in the appendices. Question numbers were omitted from this table to reduce confusion, as they changed between the pilot and final survey and test question numbering did not start at 1 in either survey booklet.

The methodology for determining which questions to remove from the pilot survey was as follows. A total of 11 questions had facility values of 1.0 and were useless for the discriminant analysis – these were prioritized for removal first. Next, it was noted that six questions had negative correlation values, and seven more had correlations near 0.0 (defined as positive but smaller than 0.1). Although there was a considerable margin of error and fairly large p values for many of these 13 questions, indicating they might have resolved to higher positive correlations with repeated measurement, they were removed because of the existence of test questions in the corresponding content areas that had larger correlations and smaller p values. This procedure minimized the risk of introducing negatively or uncorrelated test questions into the final survey.

When deciding how many questions to remove from the pilot survey, the goal was to cut exactly six questions from each content area so that the subscales would remain equal and would have the minimum 12 questions each needed for adequate internal reliability. Only Content Area 2 – Tragedies and Harms needed a seventh question removed to prevent a question with near-zero correlation from being included in the final survey. Thus, a total of 25 questions were removed. The final questionnaire contained 47 test questions, representing a 35% reduction in size compared to the 72-question pilot survey.

It is important to note a few unique properties of the pilot survey data that are not apparent from Table 15. There were two questions which had facility scores below 1.0 yet had respondents who answered uniformly (nonresponse alone led to the facility scores being less

than 1.0). One of these questions measured whether respondents knew that psychological manipulation happens within totalitarian regimes. It had a correlation of 0.003, $p = 0.986$, and a standard error indicating a wide margin of error that could resolve in either the negative or positive direction with repeated use of the survey instrument. These findings are likely due to the fact that none of the respondents selected "no" for this question (i.e., poor facility), and instead the comparison was solely between the 92% of respondents who selected "yes" and the NA values which resolved to "no" – indicating no correlation between nonrespondents and the majority response of "yes." It is interesting to note that the Environment Control question had the aforementioned properties, but instead resolved to a moderate positive correlation with very high confidence and was therefore retained for the final survey.

One of the 37 pilot respondents indicated that manipulation is a myth and does not exist, although they did not utilize the "manipulation doesn't exist" options for any of the other test questions, indicating they may have changed their mind partway through the pilot survey. None of the pilot respondents selected the "manipulation doesn't exist" (MDE) option for any of the test questions. Despite this finding, the MDE options were kept for the final survey because the literature review indicated that some minority of people may believe that there is no such thing as thought reform, and the MDE options allow such individuals to answer the knowledge test in good faith, and thus could help prevent nonresponse from this segment of the population. Lastly, the Most Commonly Recruited question had many unusable responses due to research participants selecting more than one answer – a reminder was appended to the question urging respondents to select only one answer in an effort to combat this trend.

Methodology Summary

This chapter summarized the major design decisions and considerations for this study. Details about the appropriateness of the research design, research questions, variables, hypotheses, sampling frame, population, survey instrument, data collection and data analysis were discussed. Reflections on potential sources of error, ethical concerns, and methods for addressing concerns related to validity, reliability, and bias were also examined. Finally, the results of the pilot survey were documented and discussed in detail to show how it informed the molding of the final survey booklet.

CHAPTER 4

RESULTS

Chapter 3 discussed the methodology and introduced the various statistical measures that were sought in this research. This chapter presents the results of the first TRLQ-SDL survey, including properties of the sample, literacy scores, distributions for the predictor variables and each individual question, various estimates of error, the correlation and multiple regression analyses, and the other statistical measures discussed in the previous chapter.

Final Survey Mailing Schedule and Returned Cash Incentives

A total of 500 South Dakotan addresses were sampled from a comprehensive address list – Appendix N contains the random number generator script used. The final survey mailing schedule consisted of four phases; 500 phase 1 parcels were sent on Friday May 3, 2024, and the 500 phase 2 reminder postcards were sent on Tuesday May 7, 2024. A total of 392 phase 3 parcels were sent to nonrespondents on Tuesday May 21, 2024. Phase 4 consisted of 341 final reminder letters that were sent on Tuesday June 4, 2024. Only mail parcels received on or before Monday June 24, 2024, were included in the final survey analysis. A total of 500 addresses were sampled, and 147 people responded to the pilot survey.

Cash incentives sent totaled $1,784 in $1 bills, and a total of $110 were returned – $60 from undeliverable manila parcels, $44 from refusals and $6 from those who filled out the survey but chose to return the money. Double data entry caught 6 data field errors which were corrected.

Estimating Sampling Error

Given the sample size of $n = 147$ and standard deviation s of a statistic, it is possible

to calculate the standard error for that statistic:

$$SE = \frac{s}{\sqrt{n}}$$

$$SE = \frac{s}{12.12}$$

This formula can be used to account for the sampling error for each statistic with a

standard deviation. For a 95% confidence interval, the formula for the sampling error range is:

$$Sampling\ Error = \pm 1.96 * \frac{s}{12.12}$$

$$Sampling\ Error = \pm 0.162 * s$$

These values were calculated automatically in R and are presented where appropriate.

For any given proportion statistic, such as the Jonestown recognition rate of 84.4%,

the 95% confidence interval can be calculated using the formula presented in Chapter 3:

$$95\%\ Confidence\ Interval = \pm 1.96 * \sqrt{\frac{p(1 - p)}{n}}$$

Where p is the sample proportion statistic, and n is the sample size of 147. Any given

test proportion statistic has a 95% confidence interval with absolute value less than or equal to

the maximum of $\pm 8.08\%$, depending on the value of p.

Survey Nonresponse Error

A total of 147 mail surveys were processed during the final survey phase of this study.

Since 500 addresses were selected to partake in the study, the overall survey response rate

was 29.4%. However, a more accurate adjusted response rate is 33%, which factors in the

South Dakota vacancy rate of 10.9%. Thus, the maximum nonresponse error of the survey estimates was estimated to be 70.6% with the true theoretical maximum value likely being closer to 67%.

Addressing Item Nonresponse

Item nonresponse was addressed in the same manner as it was during the pilot survey. Mean imputation was used to replace NA values with the mode (the most common response) for all questions and the weight field when item nonresponse was 5% or less. A single weight value and a total of 30 test questions were imputed in this way; 17 other test questions could not be fixed with mean imputation due to higher than 5% nonresponse. Other imputation methods were explored but ultimately could not be used to address the remainder of the nonresponse values – this was likely due to sparse patterns in the data which caused predictive methods to fail. As this was a knowledge test, the remaining nonresponse values were treated as incorrect responses when calculating each respondent's composite literacy score.

Figure 2 shows the degree of item nonresponse across respondents, after mean imputation. Since NA values resolved to point deductions on a respondents' composite literacy score, it was important to conduct a separate analysis of unusually high NA counts to see if the outliers had an effect on the data analysis. The impact of respondents with item nonresponse rates of 9 or above were accounted for with an outlier analysis, which is discussed in Chapter 5.

Figure 2

Respondent Item Nonresponse Counts

Sample Item Nonresponse Counts
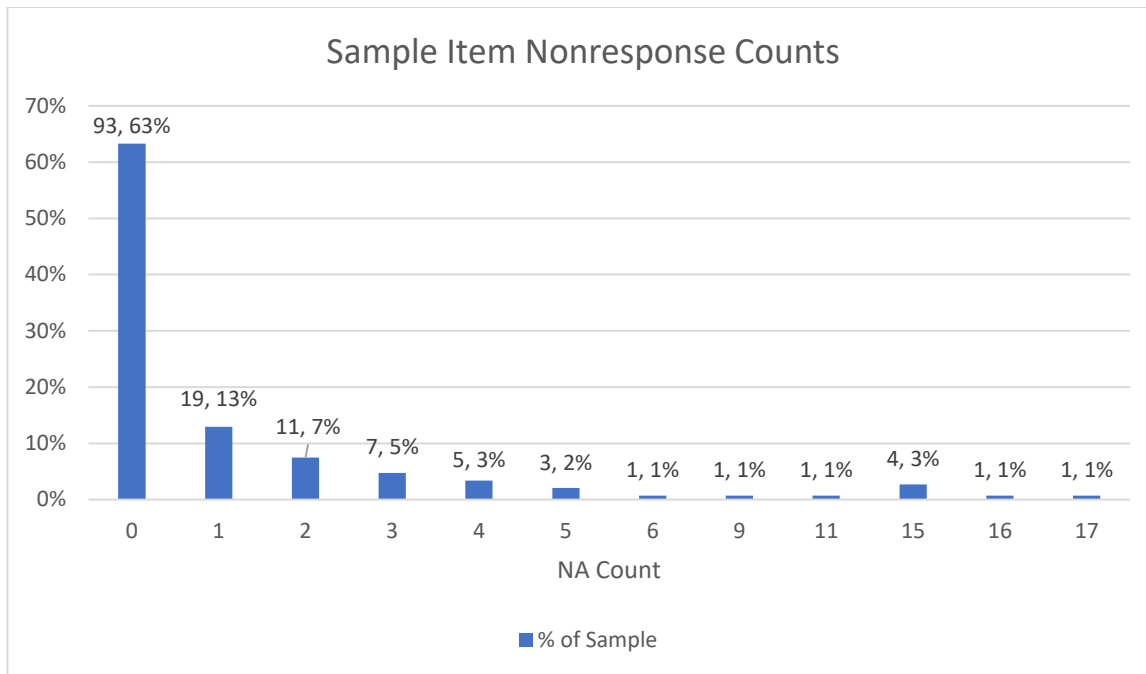
Facility and Discriminant Scores – Final Survey

Table 16 shows the facility and discriminant analysis results for the final survey. None of the test questions had extreme facility scores of 1.0 or 0.0 – thus, discrimination scores could be calculated for every test question. All 47 of the test questions displayed positive discrimination, indicating that correct answers on each individual question tended to correlate positively with overall performance on the knowledge assessment. The correlations ranged from 0.164 to 0.799, with most being between approximately 0.33 and 0.67. Notably, all of the p values were statistically significant. Two p values were close to the statistical significance threshold cutoff and were associated with some of the lowest-correlated test questions: $p = 0.0474$ for the Cult Leader question, and $p = 0.0357$ for the Most Commonly Recruited question. All the other p values were below the statistical significance threshold of 0.05, with the majority approaching zero.

Table 16

Final Facility and Discriminant Results

Question	Facility	Discrimination			
		Correlation	Std.err	t.value	p.value
Recognize Terms (Ontology)					
Brainwashing	0.973	0.499	0.072	6.936	1.24E-10
Coercive Control	0.599	0.376	0.077	4.883	2.73E-06
Gaslighting	0.829	0.540	0.070	7.717	1.76E-12
Psychological Abuse	0.930	0.663	0.062	10.656	6.10E-20
Psychological Manipulation	0.916	0.324	0.079	4.121	6.32E-05
Radicalization	0.729	0.421	0.075	5.585	1.12E-07
Thought Reform	0.475	0.299	0.079	3.773	2.34E-04
Undue Influence	0.669	0.397	0.076	5.206	6.48E-07
Historical Tragedies (Harms)					
Boarding School Era	0.910	0.550	0.069	7.940	5.08E-13
MK-ULTRA	0.692	0.411	0.076	5.422	2.40E-07
Manson Family	0.953	0.746	0.055	13.500	2.07E-27
Patty Hearst	0.739	0.335	0.078	4.275	3.45E-05
Jonestown	0.833	0.491	0.072	6.786	2.73E-10
Waco	0.903	0.534	0.070	7.601	3.36E-12
Aum Shinrikyo	0.314	0.236	0.081	2.927	3.97E-03
Heaven's Gate	0.431	0.373	0.077	4.838	3.32E-06
Ontology					
Environment Control	0.823	0.371	0.077	4.816	3.64E-06
Force/Deception	0.806	0.396	0.076	5.188	7.03E-07
Parts of Mind Influenceable	0.602	0.380	0.077	4.947	2.06E-06
How Manipulation Works	0.799	0.357	0.078	4.605	8.94E-06
Harms/Tragedies					
Physical Harm	0.836	0.398	0.076	5.218	6.14E-07
Financial Harm	0.943	0.665	0.062	10.718	4.20E-20
Cult Leader	0.395	0.164	0.082	2.000	4.74E-02
Prevalence					
Business Training Programs	0.876	0.532	0.070	7.572	3.95E-12
Families	0.946	0.670	0.062	10.881	1.57E-20
Grooming	0.880	0.540	0.070	7.717	1.76E-12
Multi-Level Marketing	0.913	0.584	0.067	8.666	8.10E-15
Political Movements	0.943	0.728	0.057	12.794	1.46E-25
Religious Movements	0.957	0.712	0.058	12.196	5.45E-24
Romantic Relationships	0.967	0.799	0.050	16.008	7.38E-34
Schools/Universities	0.916	0.563	0.069	8.205	1.14E-13

Question	Facility	Discrimination			
		Correlation	Std.err	t.value	p.value
Therapy/Life Coaching	0.913	0.558	0.069	8.099	2.08E-13
Human Trafficking in SD	0.983	0.571	0.068	8.383	4.12E-14
Manipulation in Democracies	0.903	0.673	0.061	10.954	1.01E-20
Number of Affected People	0.318	0.272	0.080	3.402	8.64E-04
Defense and Vulnerability					
Adults Below 65	0.967	0.799	0.050	16.008	7.38E-34
Lawyers	0.843	0.629	0.065	9.748	1.41E-17
Medical Doctors	0.826	0.624	0.065	9.609	3.21E-17
Mental Health Professionals	0.843	0.609	0.066	9.238	2.87E-16
Military Personnel	0.873	0.621	0.065	9.531	5.09E-17
Learning As Defense	0.903	0.654	0.063	10.404	2.78E-19
Privacy as Defense	0.890	0.661	0.062	10.595	8.81E-20
Terrorist Recruitment of Professionals	0.880	0.624	0.065	9.609	3.22E-17
Legal Protections	0.649	0.215	0.081	2.649	8.96E-03
Most Commonly Recruited	0.264	0.173	0.082	2.120	3.57E-02
Who is Vulnerable	0.849	0.406	0.076	5.355	3.28E-07
Defense Ontology	0.629	0.264	0.080	3.296	1.23E-03

Note. Questions are listed in this table in the order they appeared in the final survey. Question titles are meant to be concise descriptors of what the question measured – detailed information about these questions can be found in Appendix B. Question numbers were omitted from this table to reduce confusion, as they changed between the pilot and final survey and test question numbering did not start at 1 in either survey booklet.

Internal Reliability – Cronbach's Alpha

The final survey had a coefficient alpha value of 0.875, which is within the acceptable range for a knowledge assessment. This indicates that the TRLQ-SDL has high internal reliability. Cronbach's alpha was calculated using the alpha function in R, after converting each test response into a Boolean representing an incorrect (0) or correct (1) answer for each respondent. Converting the data to Booleans in this manner is crucial as the Cronbach's alpha formula utilizes the variance of the question results. The original encoding scheme used for the multiple choice questions, where values ranged from 1 to 4, denote categorical values

indicating the answer the respondent gave – not ordinal or interval data. Thus, the original

encoding scheme needed to be converted to binary vectors to obtain an accurate alpha value.

Weight and Birthday Bar Charts

Figure 3 and Figure 4 show the distribution of survey weights and answers to the "next

birthday" question, respectively. The majority of the South Dakotan adults in the sample

either lived alone or with one other adult. One respondent did not answer the weight question

and so their survey weight was set to the mode weight of 2. Research on selecting the proper

adult in the household during mail surveys suggests that although the active yes/no question

used in this survey likely reduced the risk of incorrect adults filling out the survey, it is

unlikely everyone followed the instructions properly (Olson & Smyth, 2017). Thus, although

the majority of the sample reported being the adult in the household with the next birthday,

some unknown portion of the adults who answered "yes" may have been the incorrect adults,

introducing a selection bias to the survey statistics.

Figure 3

Weight Bar Chart (n = 147)
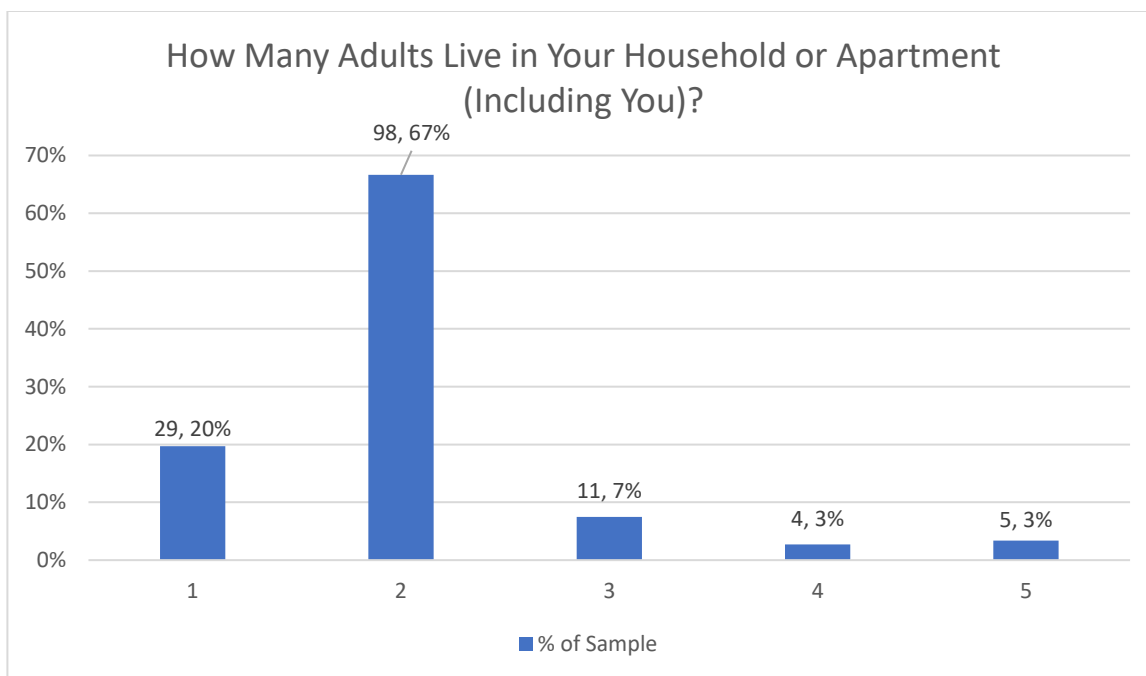
Figure 4

Birthday Bar Chart (n = 147)
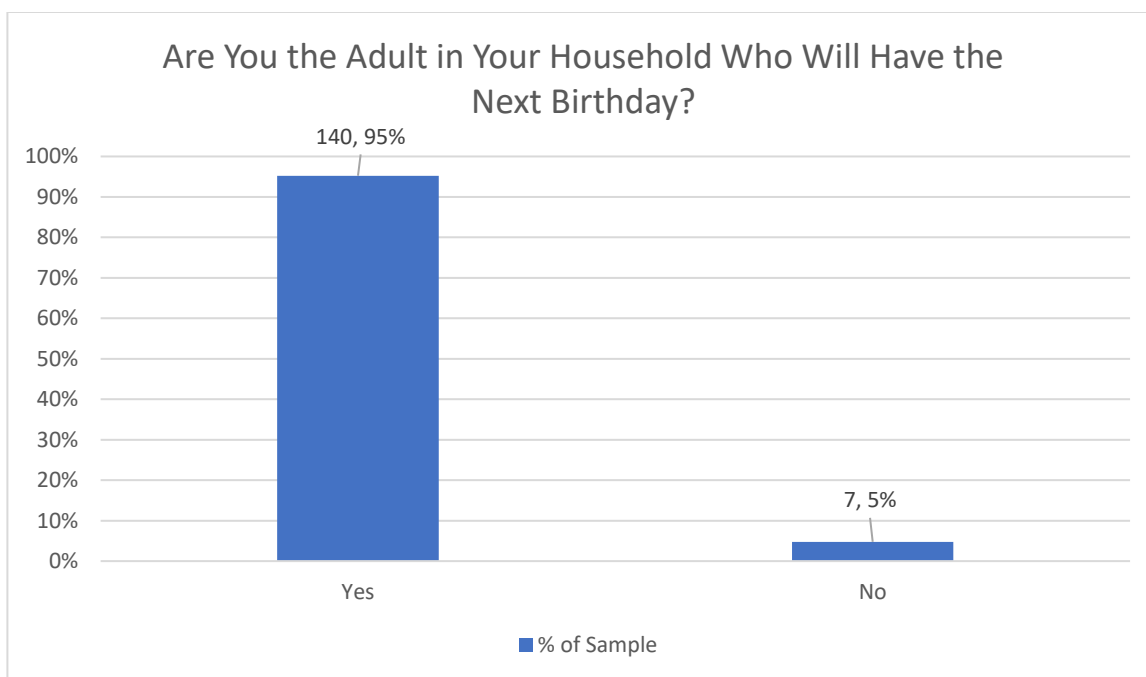
Demographic and Predictor Variable Results

Figure 5 through Figure 10 show the frequencies of the following predictor variables – age, educational attainment, subjective social status, race/ethnicity, sex, and belief in self-vulnerability to thought reform. The following were the median or mode values for each demographic category: 56-65 for age; Bachelor's degree for educational attainment; middle class for subjective social status; white for race and ethnicity; and female for biological sex. A comparison between the demographic characteristics of the sample and the reference statistics is provided in Chapter 5.

Figure 5

Age Frequencies (n = 147)
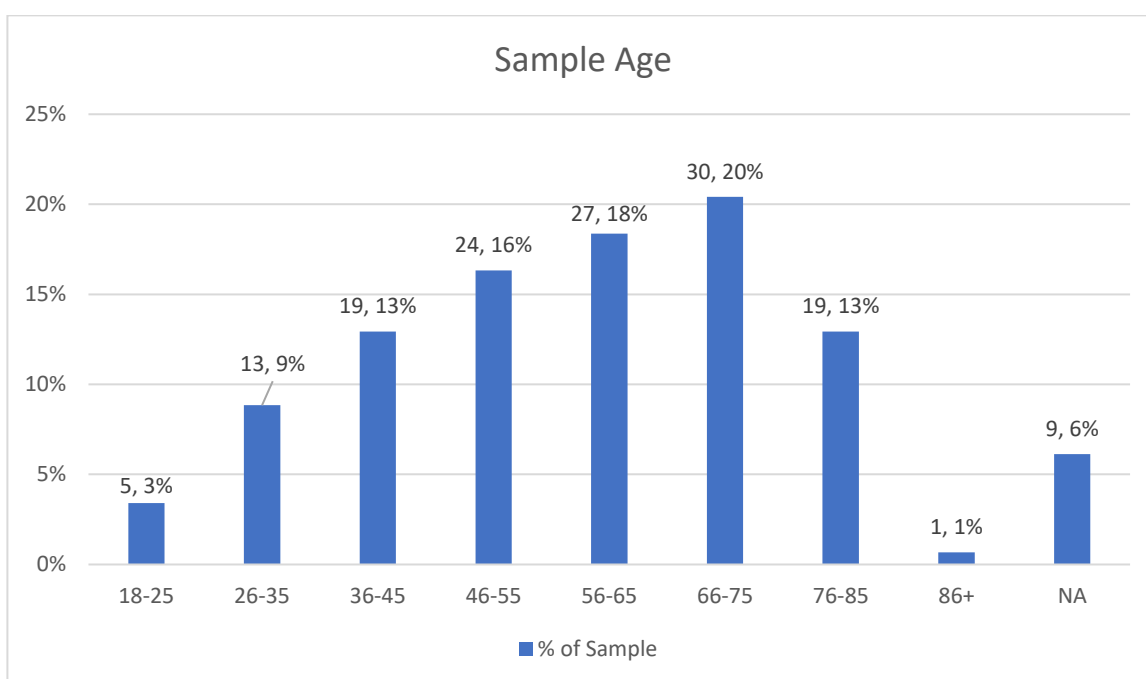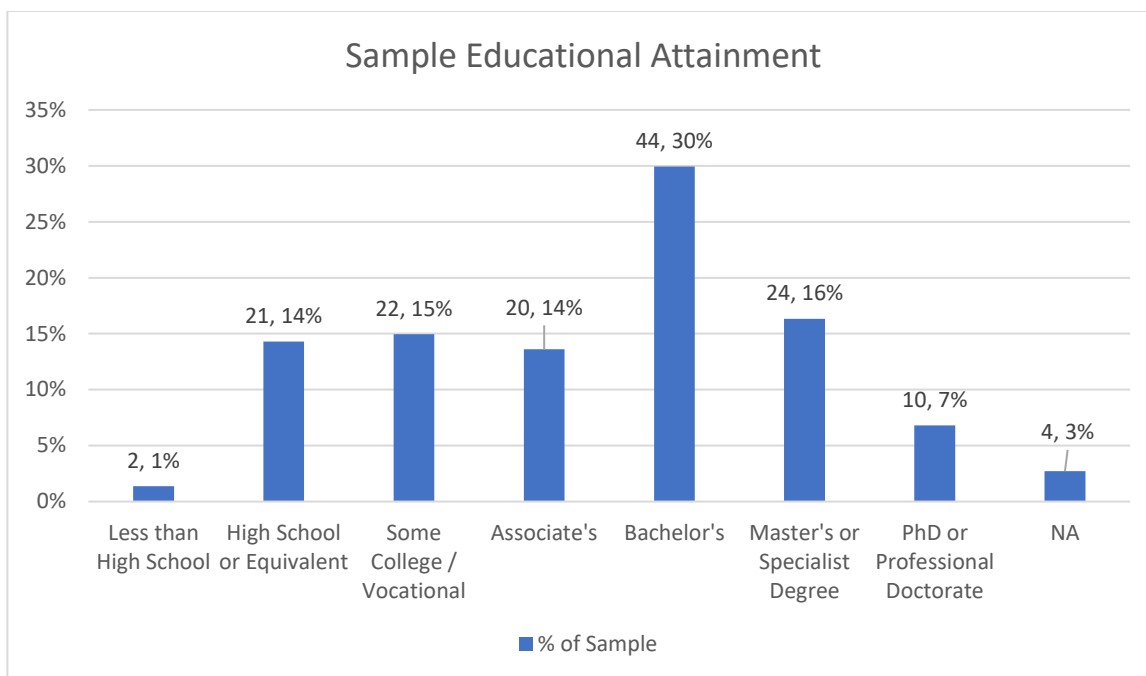

Figure 6

Educational Attainment Frequencies (n = 147)

Figure 7

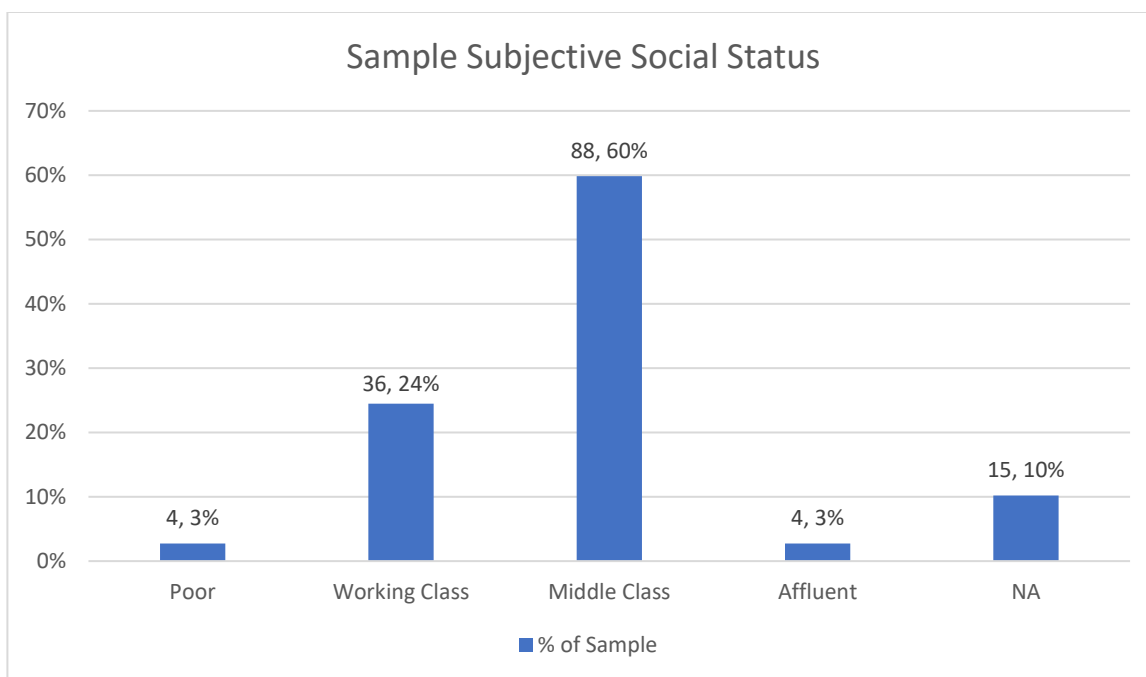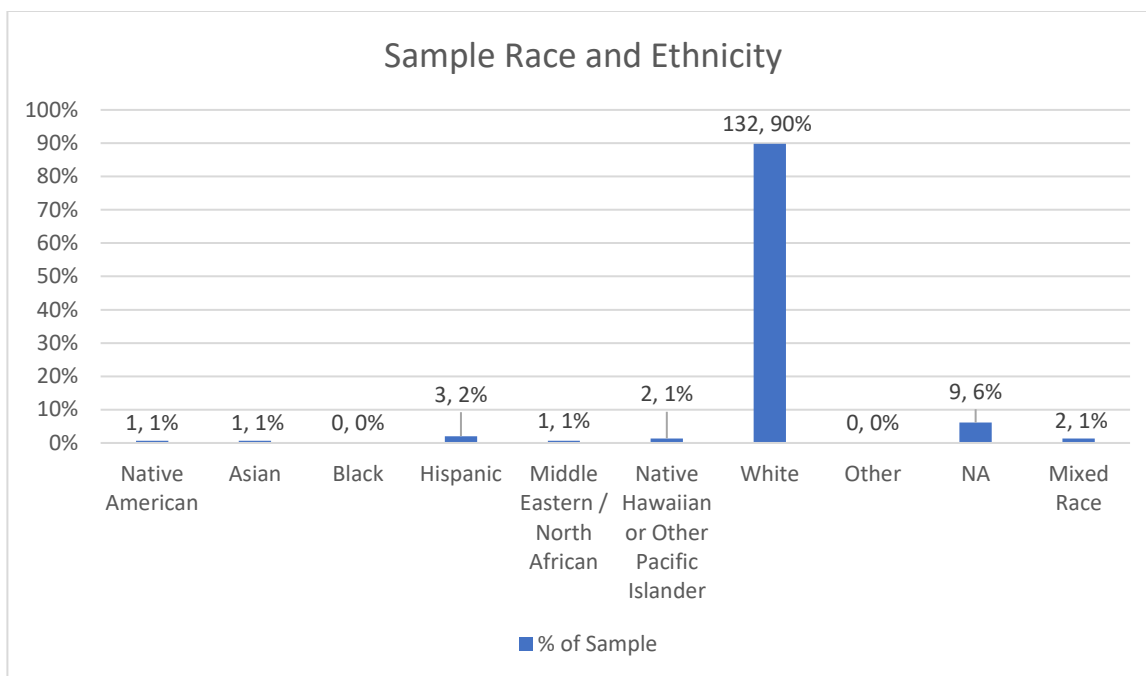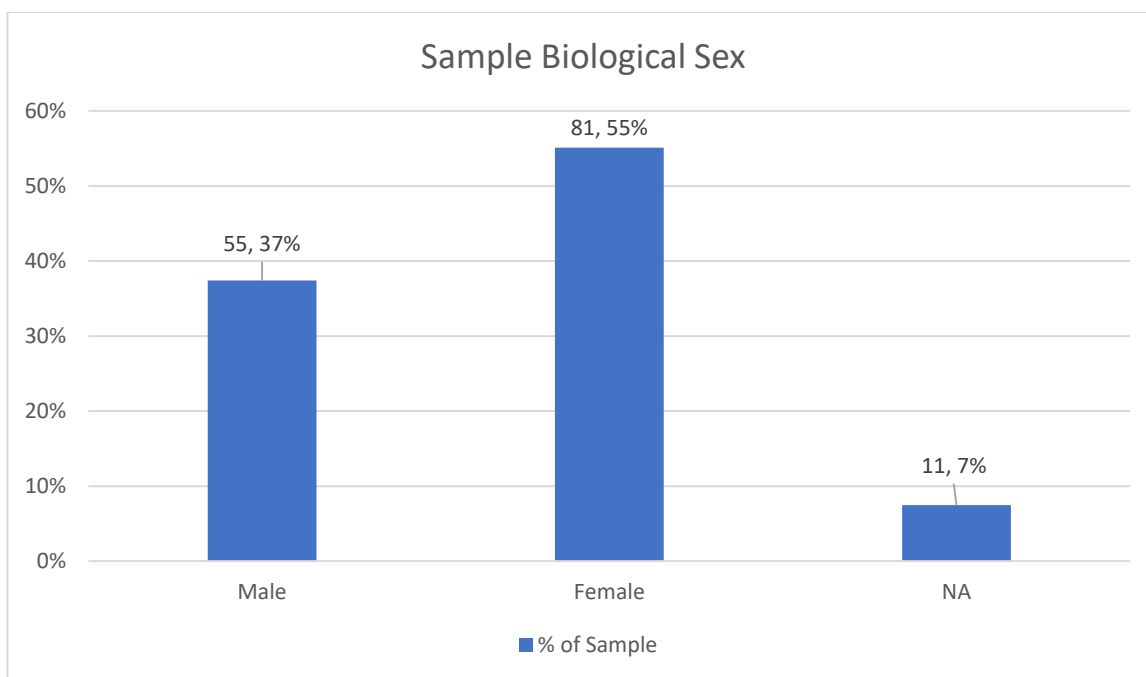*Subjective Social Status Frequencies (n = 147)*
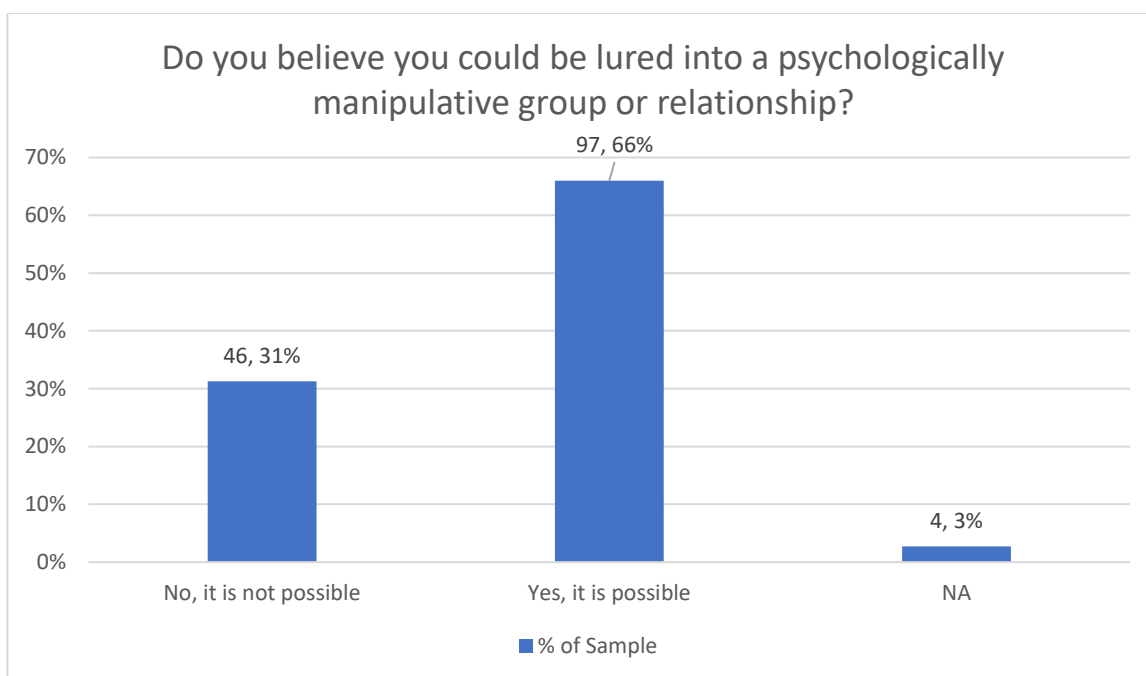

Figure 8

Race/Ethnicity Frequencies (n = 147)

Figure 9

Sex Frequencies (n = 147)

Figure 10

Belief in Self-Vulnerability to Thought Reform (n = 147)

Literacy Scores Charts and Tables

Figure 11 through Figure 15 are histograms of the composite and content area literacy scores. Table 17 shows the skewness and kurtosis statistics for these five score distributions for both the full sample and after the two extremely low-scoring outlier scores were removed from the sample. Jarque-Bera test *p* values of less than 0.05 indicate statistically significant departures from normality (Bobbitt, 2020a). All literacy score distributions had negative skewness, indicating that respondents tended to be clustered at the higher end of the score distributions. The severity of this skewness diminished for all score distributions after removal of the thought-reform deniers from the sample. Even with outliers removed, all literacy score distributions were not normally distributed as indicated by the Jarque-Bera tests. Despite the composite score distribution failing the Jarque-Bera test, further statistics were produced assuming normality since it visually appears close to a normal distribution after the removal of the thought reform deniers. This allowed for a separate regression analysis of

belief in self-vulnerability to thought reform to be conducted to further investigate a

statistically significant correlation that was found, and the statistical assumptions

underpinning this analysis are discussed in detail in Chapter 5.

Table 17

Skewness and Kurtosis Statistics for Literacy Scores

Literacy Score Distribution	Full Sample			Outliers Removed		
	Skewness	Kurtosis	Jarque-Bera Test (*p*)	Skewness	Kurtosis	Jarque-Bera Test (*p*)
Composite	-2.645	14.82	2.2E-16	-0.794	3.493	2.4E-4
Content Area 1	-1.048	4.751	1.2E-10	-0.580	2.873	0.02
Content Area 2	-1.056	5.111	1.4E-12	-0.529	3.185	0.03
Content Area 3	-3.556	20.59	2.2E-16	-1.554	5.334	2.2E-16
Content Area 4	-2.014	6.84	2.2E-16	-1.978	6.887	2.2E-16

Kurtosis represents the "peakedness" or "flatness" of a frequency distribution

(Hatcher, 2013). Like with the skewness statistic, the kurtosis scores of the distributions

tended to decrease after the thought-reform deniers were removed from the sample, with the

exception of Content Area 4. Most kurtosis scores were greater than 3, indicating a leptokurtic

distribution (high peakedness) for every literacy score distribution besides Content Area 1

after deniers were removed from the sample.

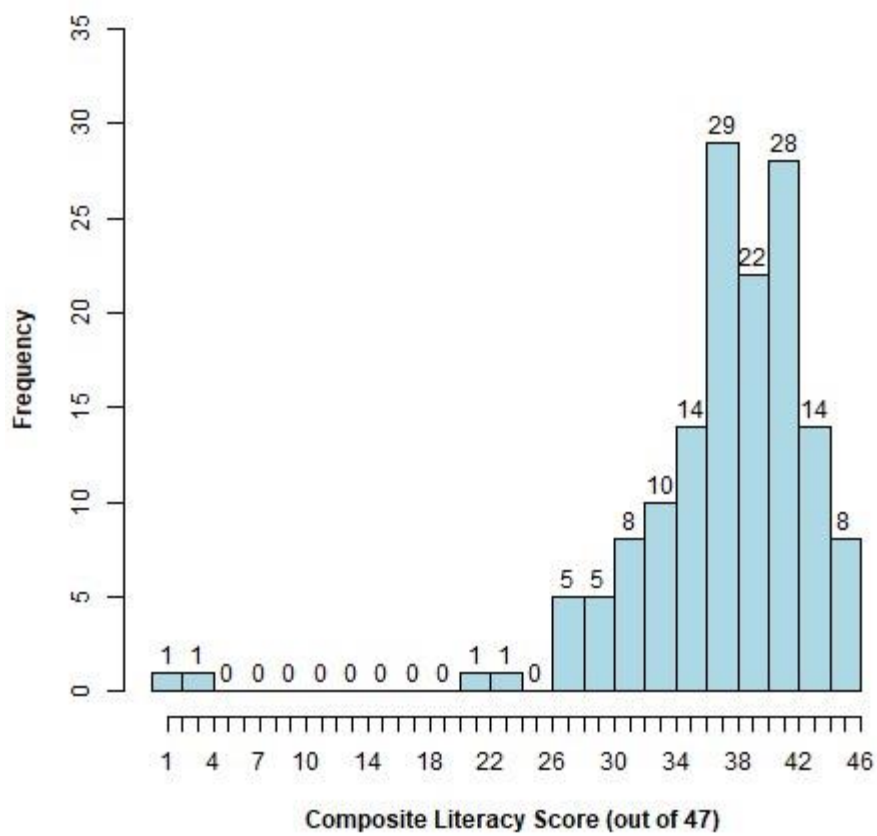**Figure 11**

Composite Literacy Scores (n = 147)

Figure 12

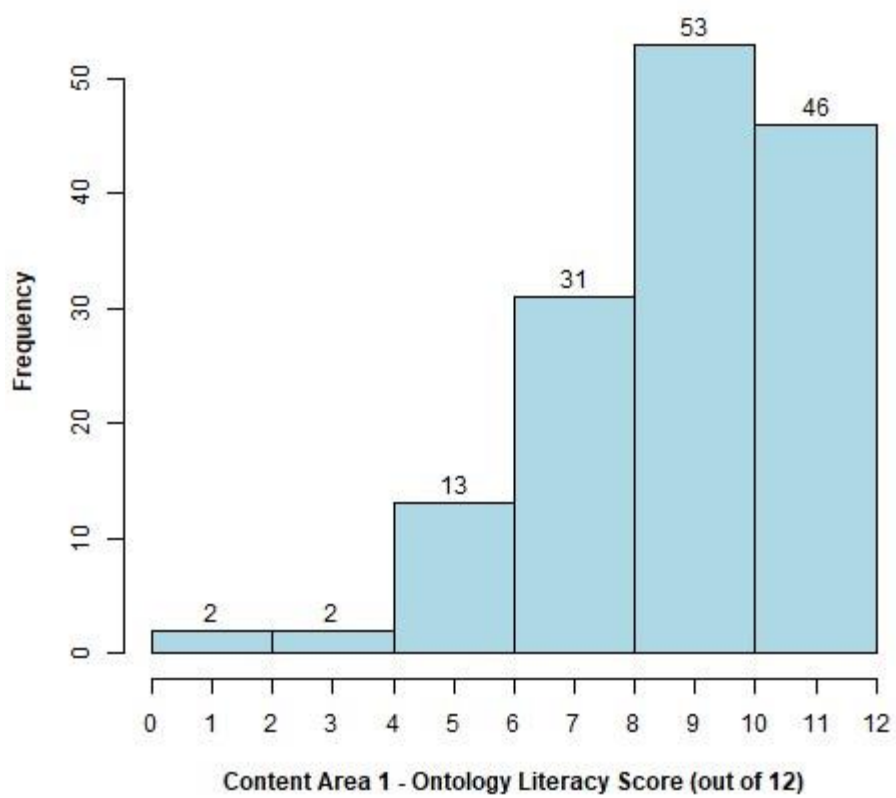*Content Area 1 (Ontology) Literacy Scores (n = 147)*

Figure 13

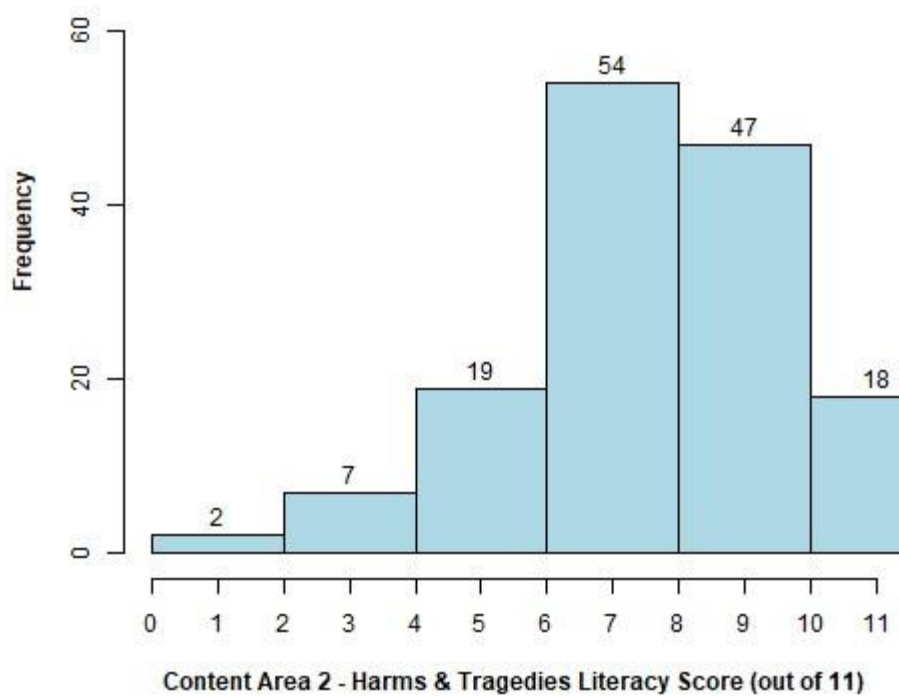*Content Area 2 (Harms and Tragedies) Literacy Scores (n = 147)*

Figure 14

Content Area 3 (Prevalence) Literacy Scores (n = 147)

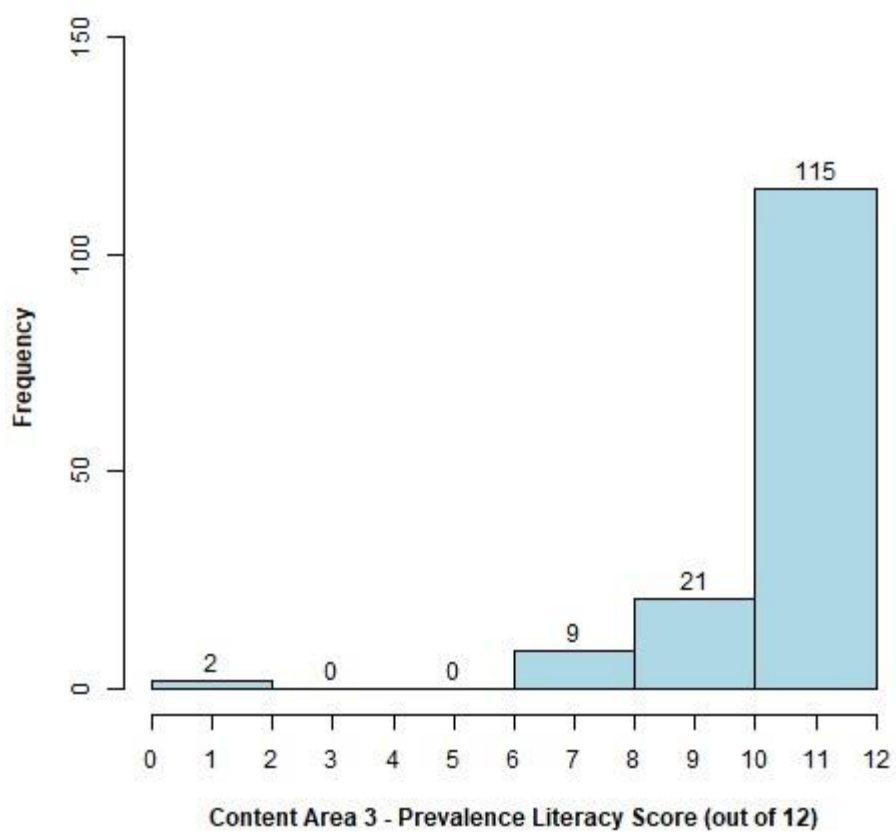**Figure 15**

Content Area 4 (Defense) Literacy Scores (n = 147)

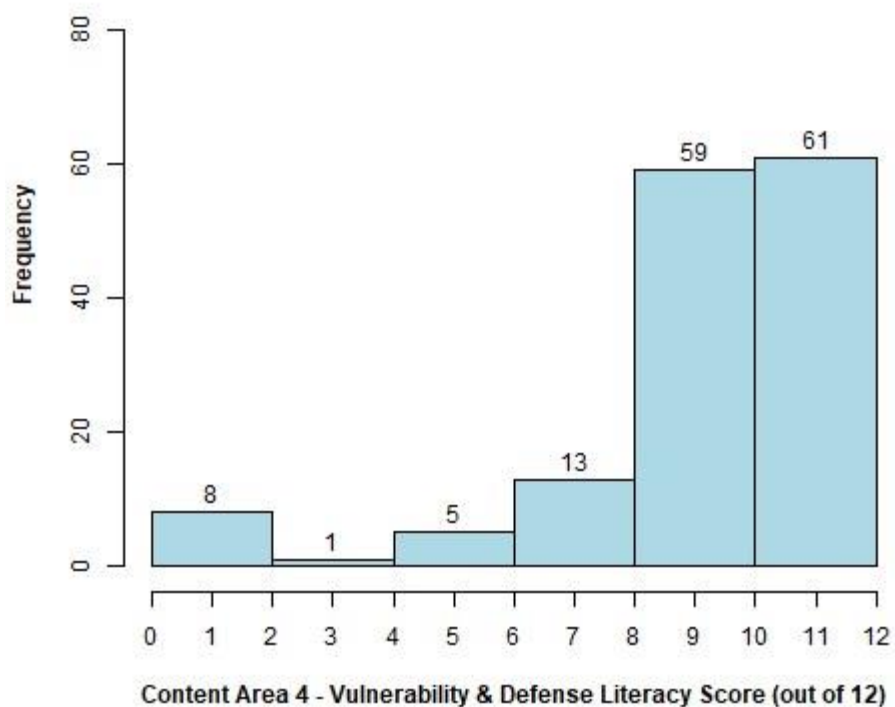Content Area 4 - Vulnerability & Defense Literacy Score (out of 12)

Table 18 shows the primary statistics for the composite literacy scores. The maximum composite score possible was 47. The maximum possible score for Content Area 2 was 11. The other content areas had maximum possible scores of 12. Only the composite literacy score had an associated standard deviations, standard error, and upper and lower bounds for the score estimate as it was the only score distribution that visually appeared close to a normal distribution. The four content areas' mean scores were the associated median scores for their distributions: Content Area 1 had a median score of 9; 8 for Content Area 2; 11 for Content Area 3; and 10 for Content Area 4. Table 18 also reports the composite literacy score statistics with all outliers removed from the sample (including both deniers and respondents with high

item nonresponse). Chapter 5 discusses the impact of the outlier scores on the estimate of the

mean composite literacy score and standard deviation in greater detail.

Table 18

Literacy Score Table

	Mean Score	Unbiased Standard Deviation (s)	Sample Standard Deviation (S)	Standard Error	95% Confidence Interval	
					Lower Limit	Upper Limit
Composite – Full Sample	37.03	8.087	8.073	0.667	35.72	38.34
Composite – Outliers Removed	38.89	4.256	4.248	0.364	38.18	39.61

Table 19 shows the full breakdown of frequency of the composite literacy scores for

the sample. Respondent composite scores ranged from 1 to 46 – no respondent got a perfect

score of 100%, and no respondent got a score of 0. The two outlier respondents who scored

exceptionally low had selected the "Manipulation Doesn't Exist" distractor on either all or the

majority of the instances where it was an option. Thus, the non-denier respondent score range

was between 22 and 46 (out of 47) on the TRLQ-SDL.

Table 19

Sample Composite Literacy Score Counts

Composite Literacy Score	# of Respondents with Score
1	1
3	1
22	1
23	1
27	2
28	3
29	1
30	4
31	5
32	3
33	3

Composite Literacy Score	# of Respondents with Score
34	7
35	9
36	5
37	14
38	15
39	10
40	12
41	12
42	16
43	8
44	6
45	6
46	2

Figure 16 and Figure 17 show box and whisker plots for composite and content area literacy scores, respectively. The "x" value in each figure is the score distribution's mean. Each box has three values: From top to bottom, these numbers indicate the third quartile Q3, or the 75th percentile; the median; and the first quartile Q1, or the 25th percentile. The top and bottom whisker values indicate the maximum and minimum scores in the dataset that were within 1.5 box lengths of the interquartile range. The data points below the whiskers are considered outlier values compared to the interquartile range. Since outliers appeared only below the bottom whiskers, these figures illustrate that every distribution had a negative skew. The mean score of 37.49 in Figure 16 is different than the one reported in Table 18 because it is the unweighted mean of the composite scores.

Figure 16

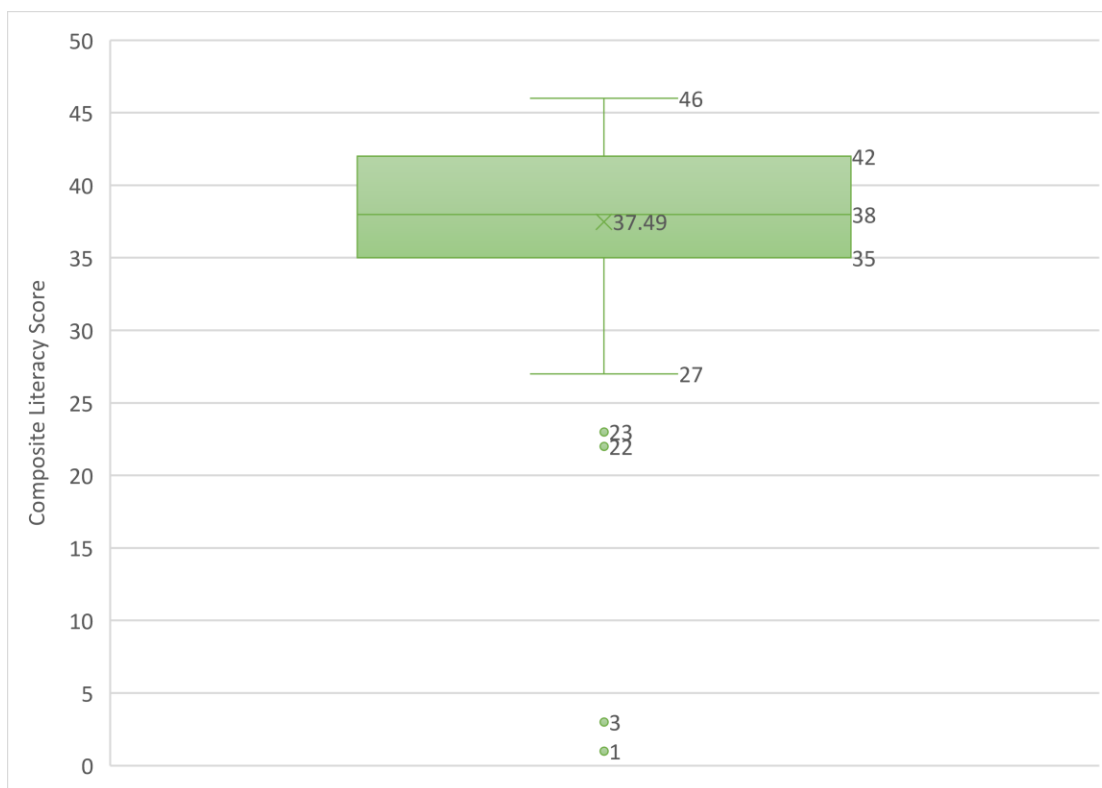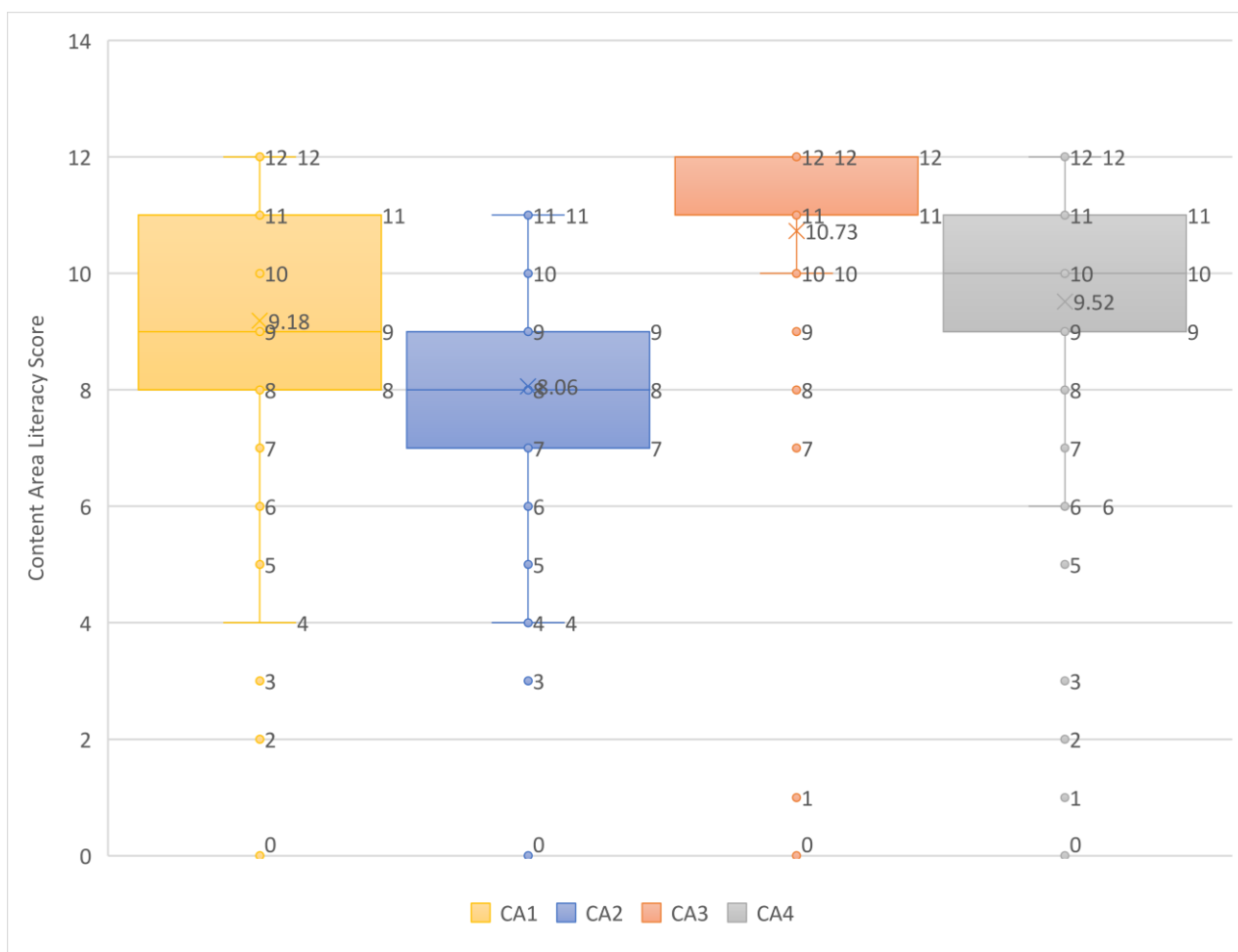*Composite Literacy Score Box and Whisker Plot*

Figure 17

Content Area Box and Whisker Plots

Question Bar Charts

Figure 18 through Figure 36 are bar charts showing the final statistics for each individual test question. These figures are analyzed and interpreted in detail in Chapter 5. All number labels are rounded to the nearest percentage in order to enhance the readability of the charts – exact percentages are easily calculated from the information provided in each bar chart. The category "NA" indicates the item nonresponse frequency.

Figure 18

Bar Chart of Thought Reform Terminology (n = 147)

Familiarity with Thought Reform Terminology
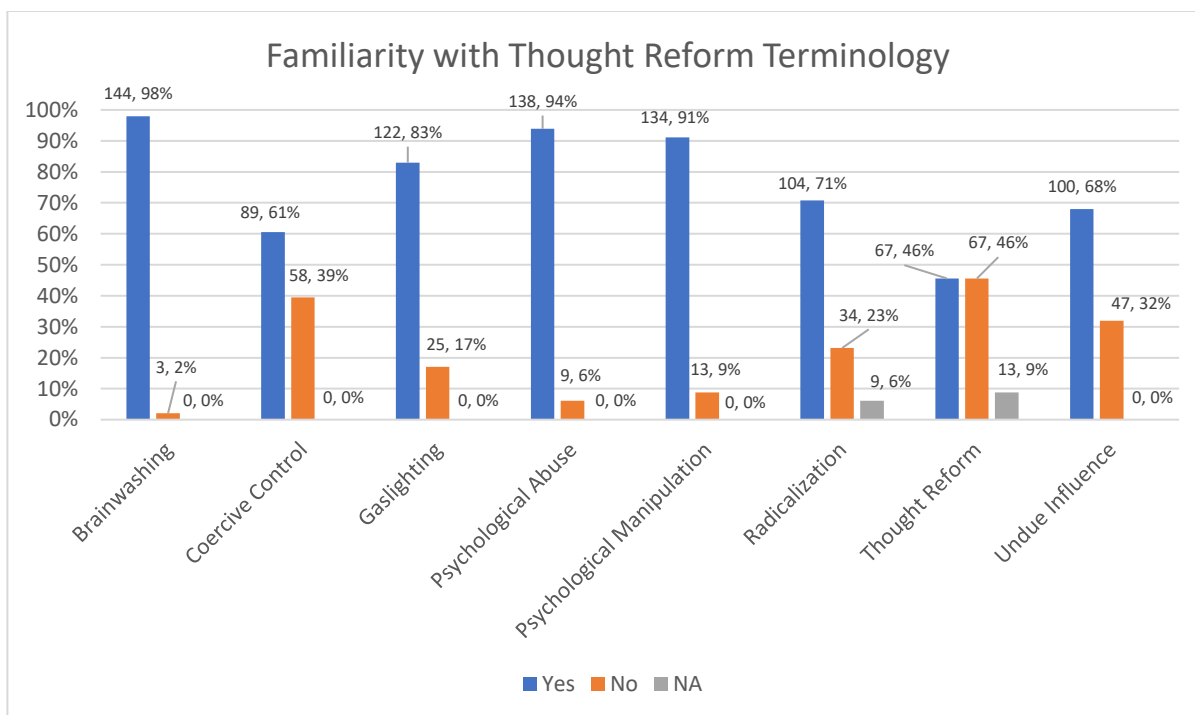
Figure 19

Bar Chart of Tragedies (n = 147)

Familiarity with Thought Reform Tragedies
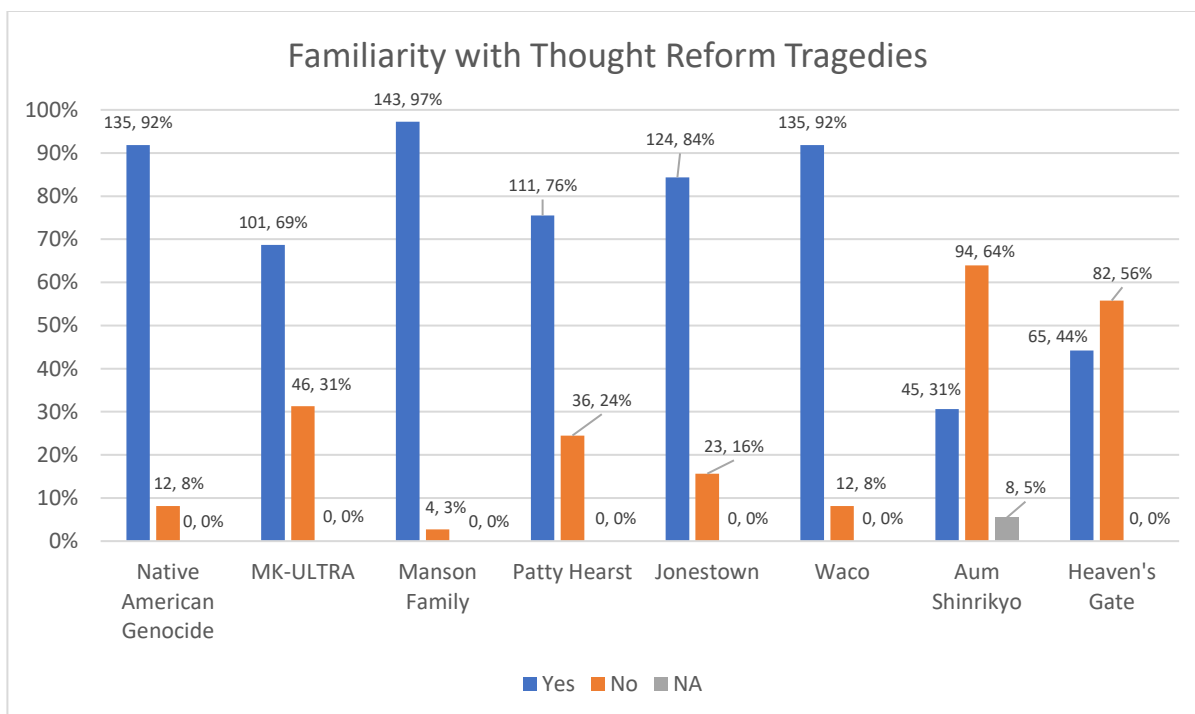
Figure 20

Bar Chart of Does Psychological Manipulation Often Involve Milieu Control (n = 147)

True or False: Psychological Manipulation Often Involves Taking Control of the Target's Environment
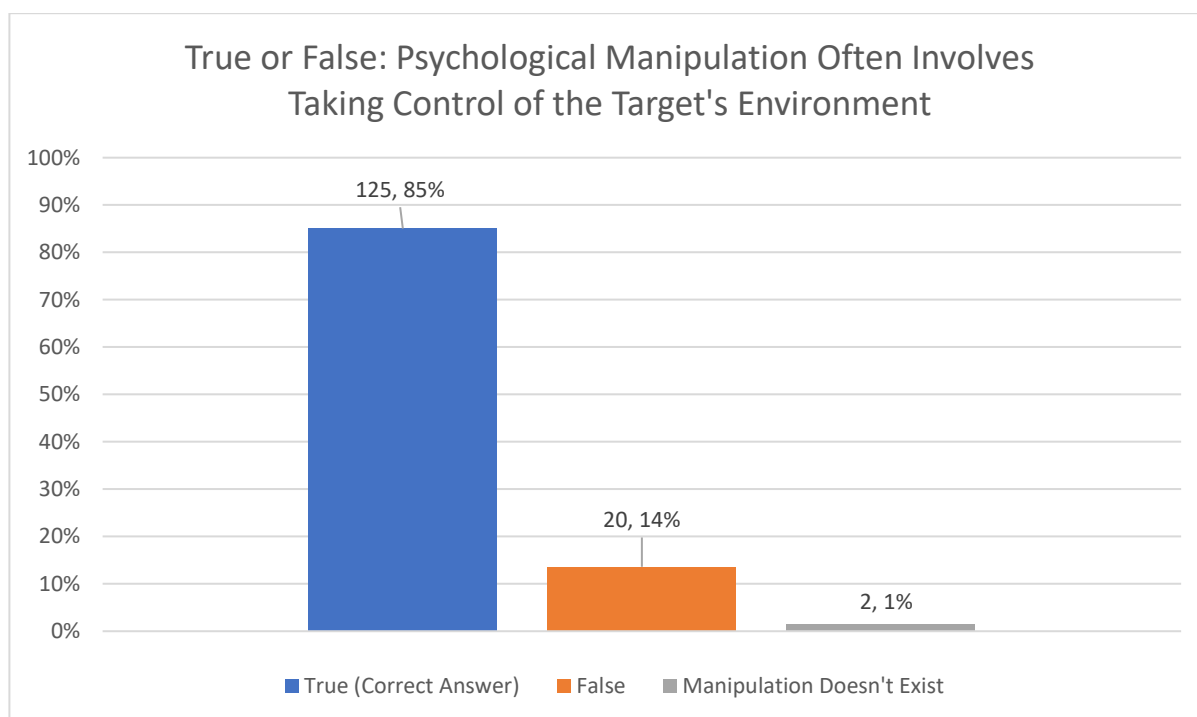
Figure 21

Bar Chart of Thought Reform Modes (n = 147)
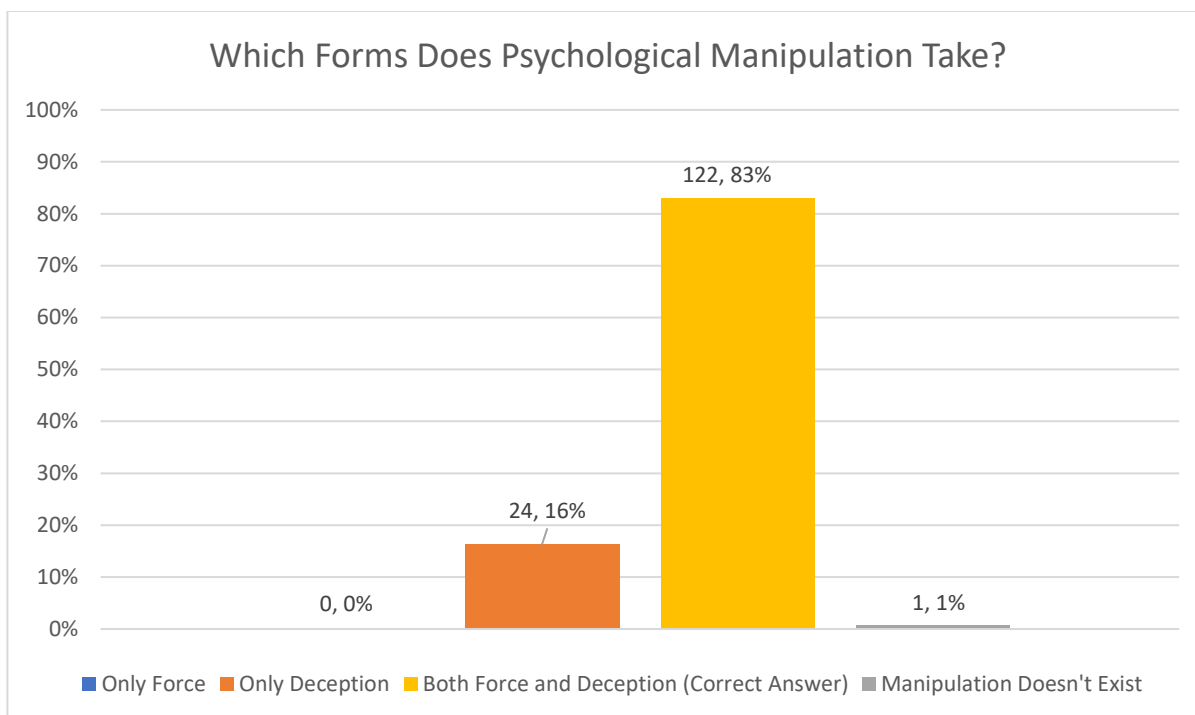
Figure 22

Bar Chart of Parts Influenceable (n = 147)
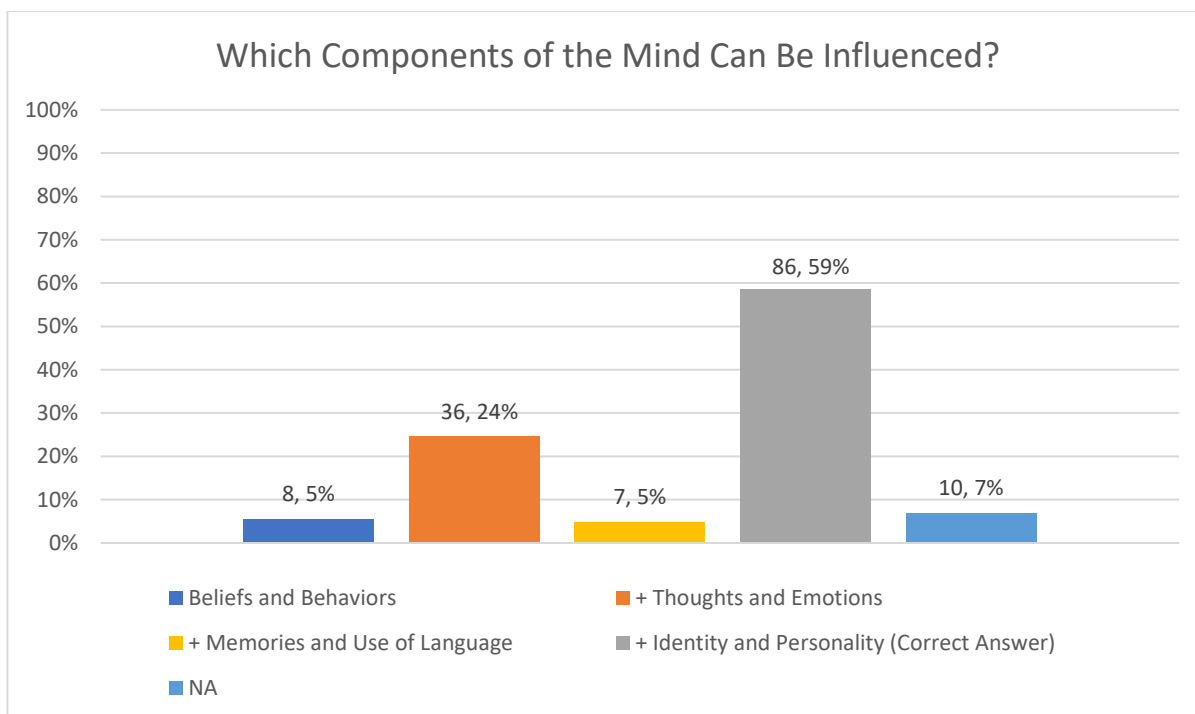
Figure 23

Bar Chart of How Does Psychological Manipulation Work? (n = 147)
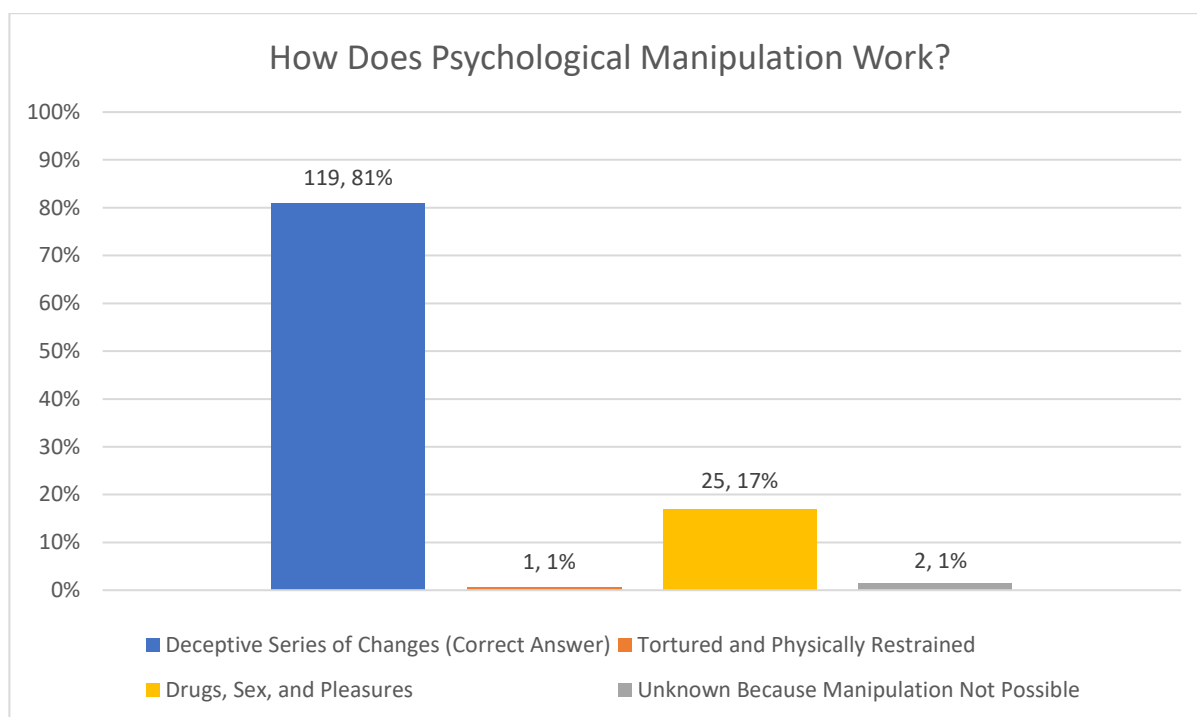
Figure 24

Bar Chart of Typical PMG Harms (n = 147)
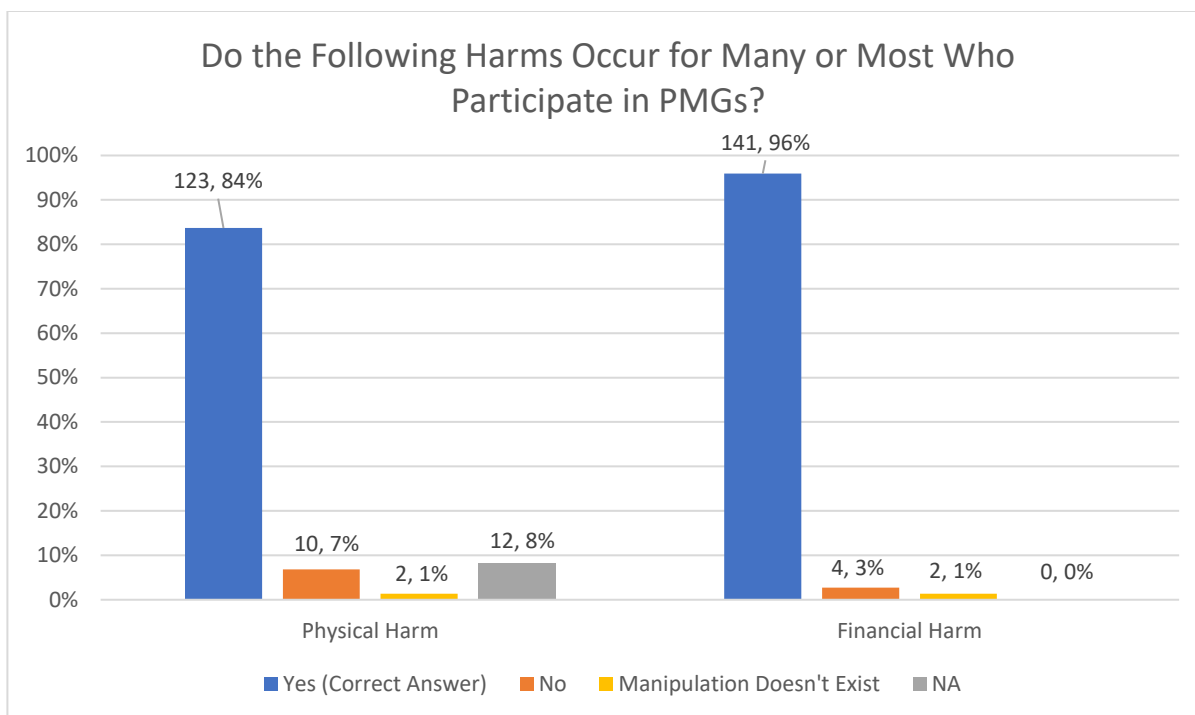
Figure 25

Bar Chart of Who Becomes the Leader of a PMG? (n = 147)
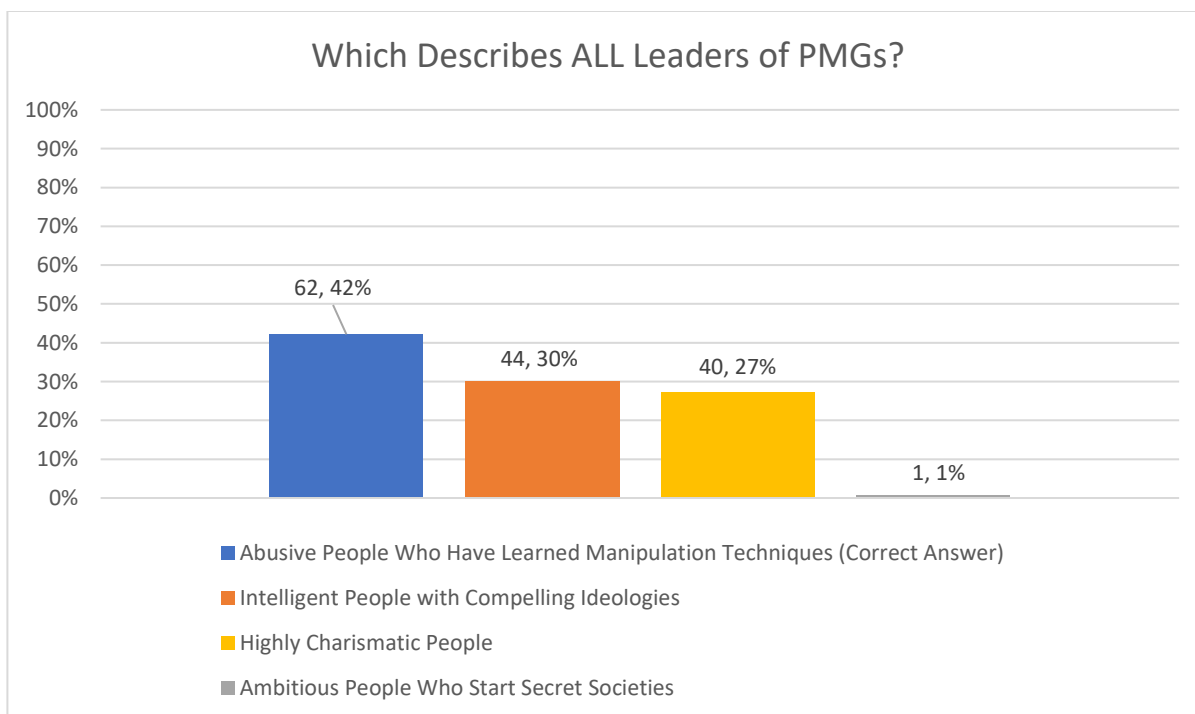
Figure 26

Bar Chart of Psychological Manipulation Possible Within Social Contexts (n = 147)
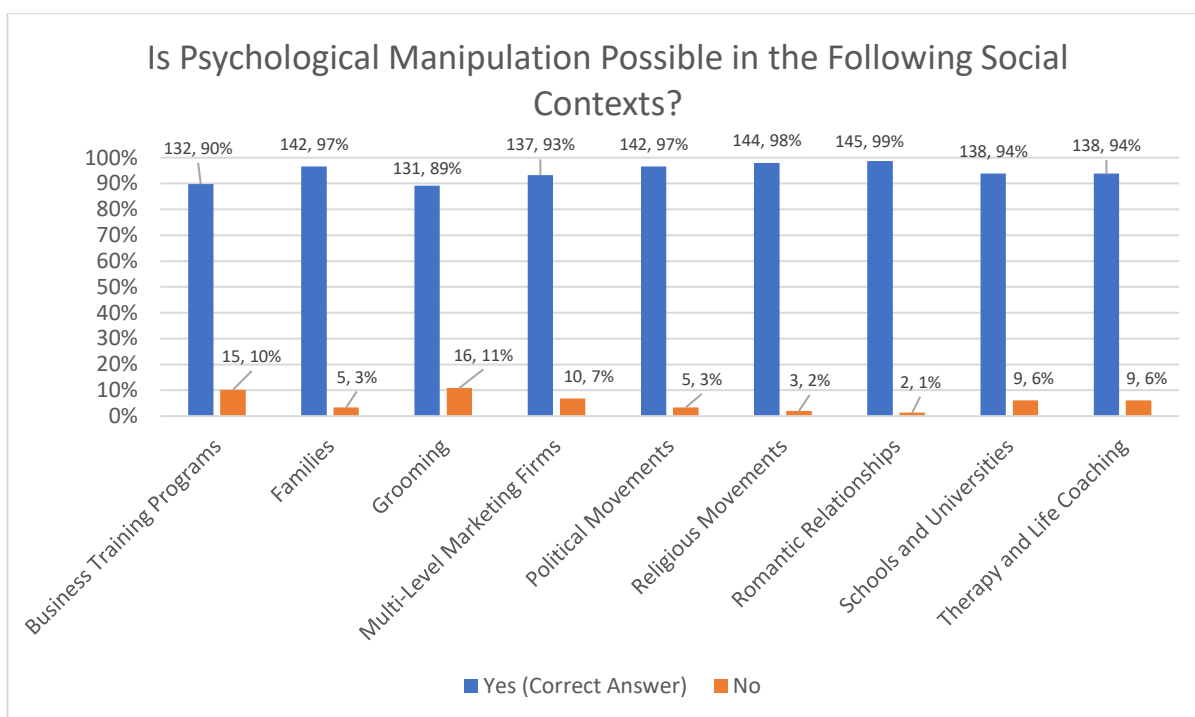
Figure 27

Bar Chart of Does Human Trafficking Happen in South Dakota? (n = 147)
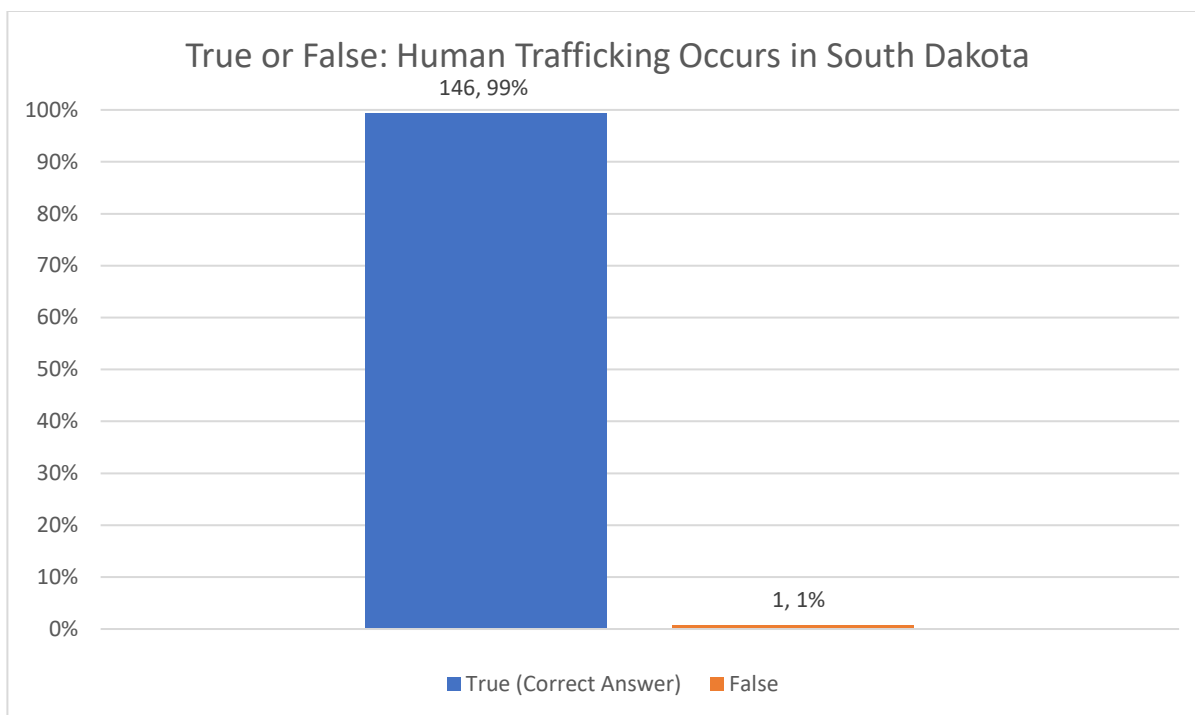
Figure 28

Bar Chart of Thought Reform in Non-American Democracies (n = 147)
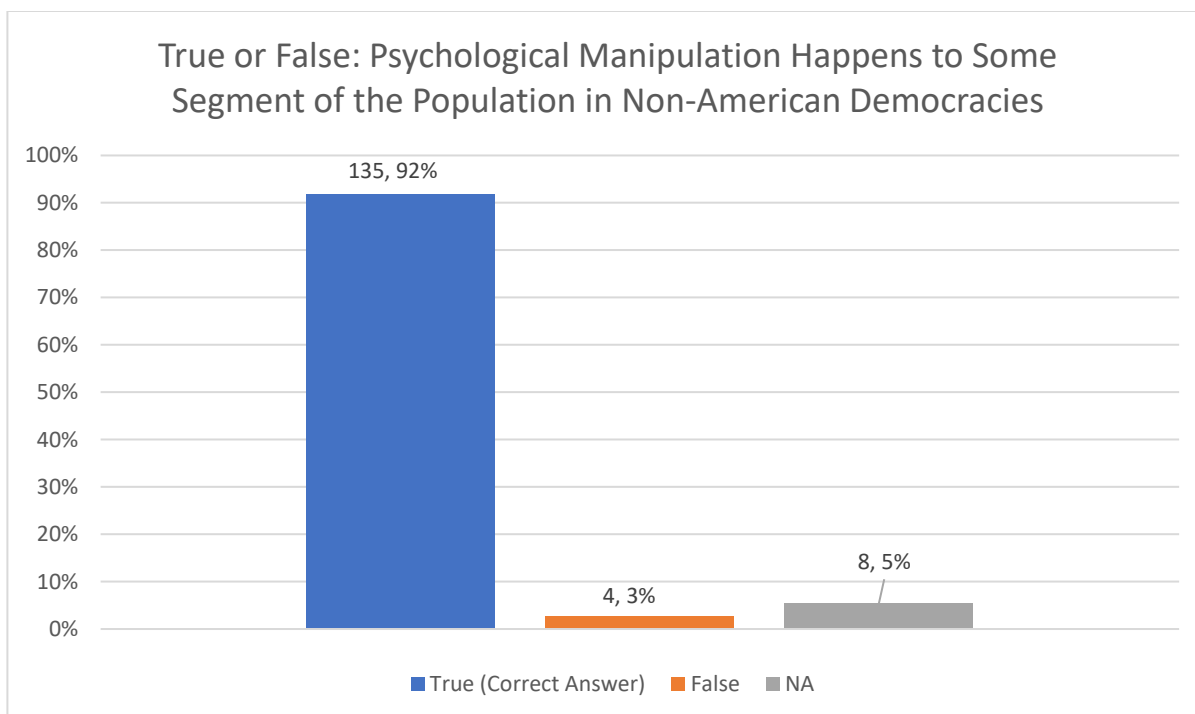
Figure 29

Bar Chart of How Many Humans Are Psychologically Manipulated in the World? (n = 147)
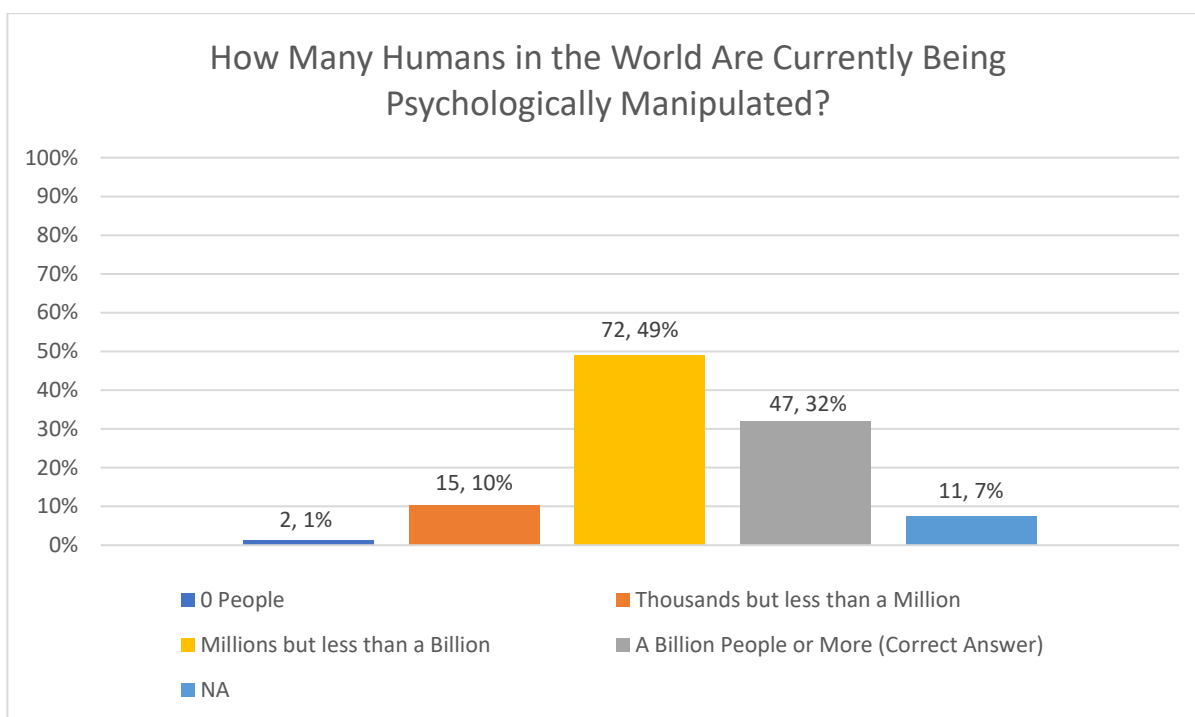
Figure 30

Bar Chart of Can the Following Types of People Be Lured into a PMG or Psychologically

Manipulative Relationship? (n = 147)
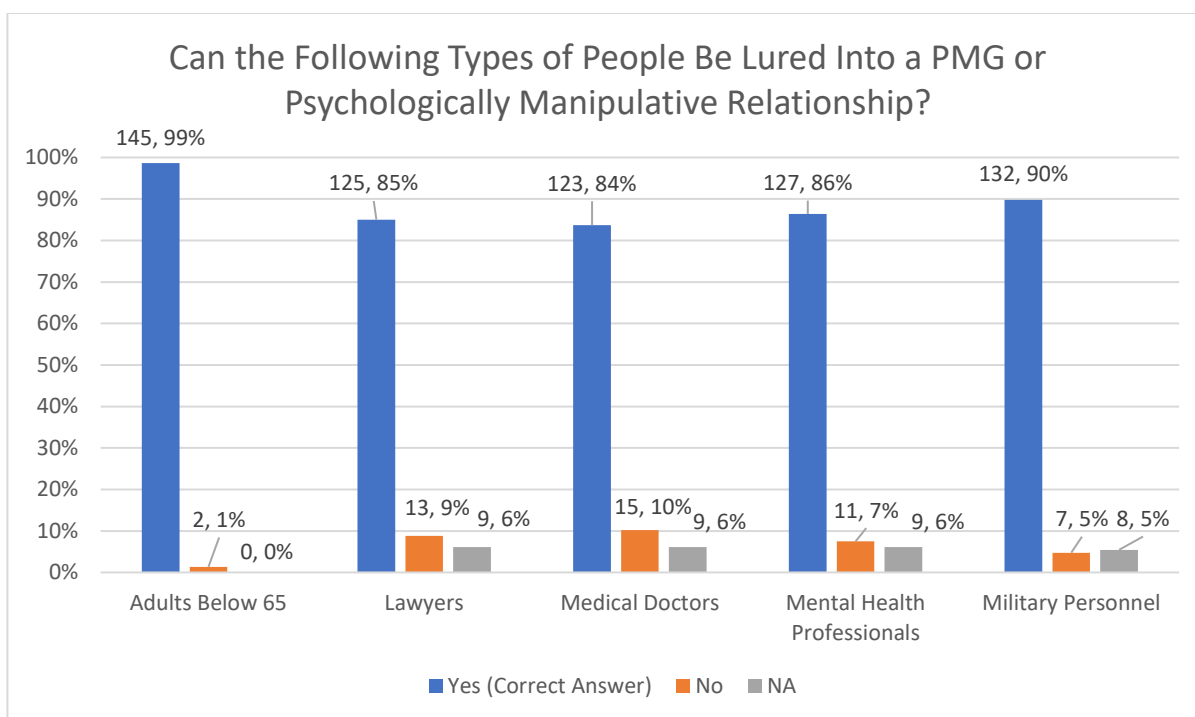
Figure 31

Bar Chart of Terrorist Groups Recruiting Educated Professionals (n = 147)
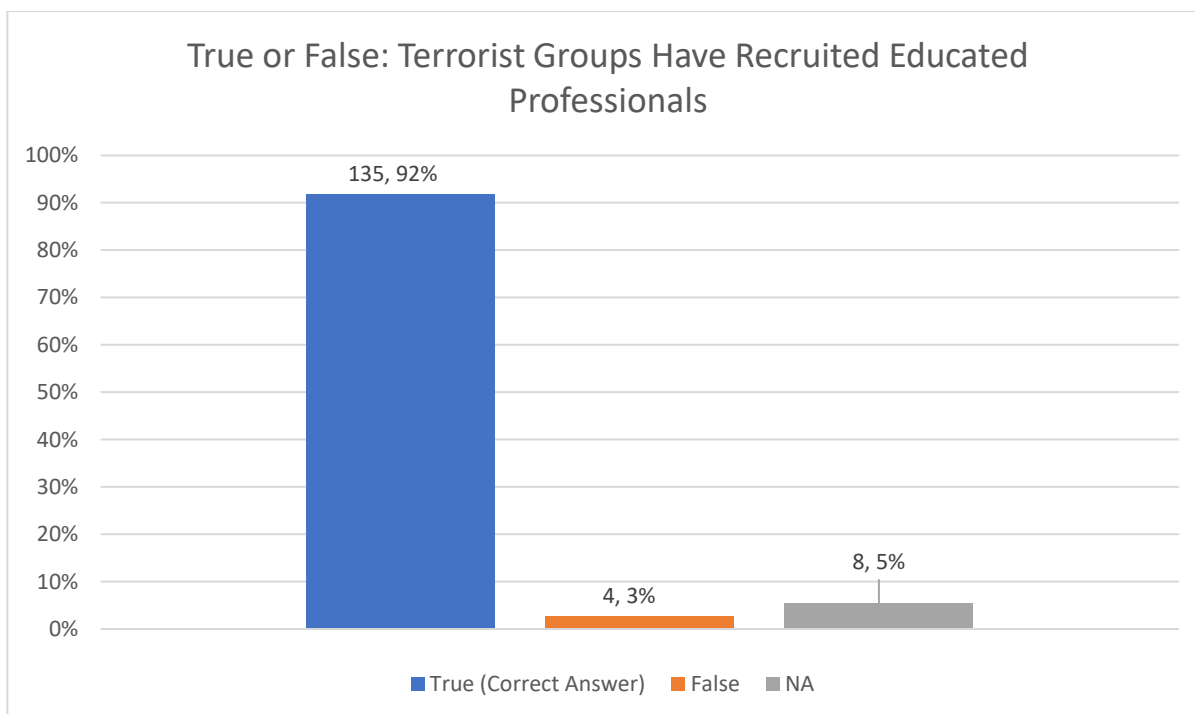
Figure 32

Bar Chart of Thought Reform Defensive Controls (n = 147)
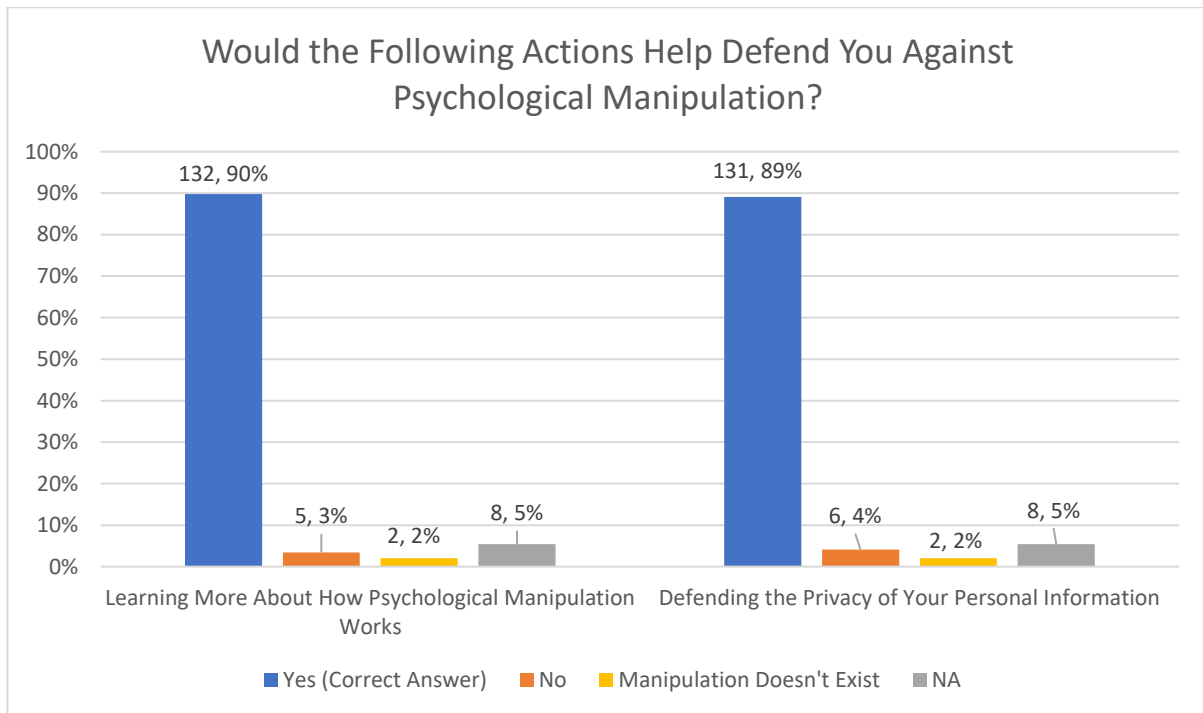
Figure 33

Bar Chart of Legal Protections Against Thought Reform (n = 147)
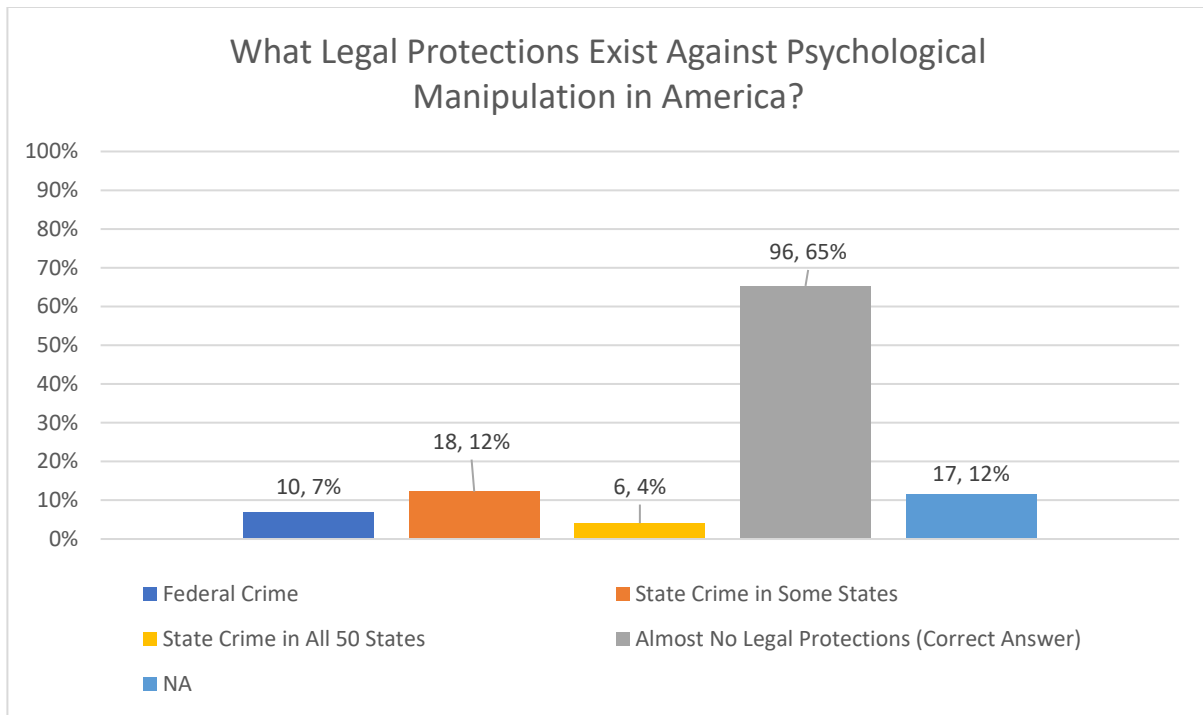
Figure 34

Bar Chart of Most Commonly Recruited Type of Person (n = 147)
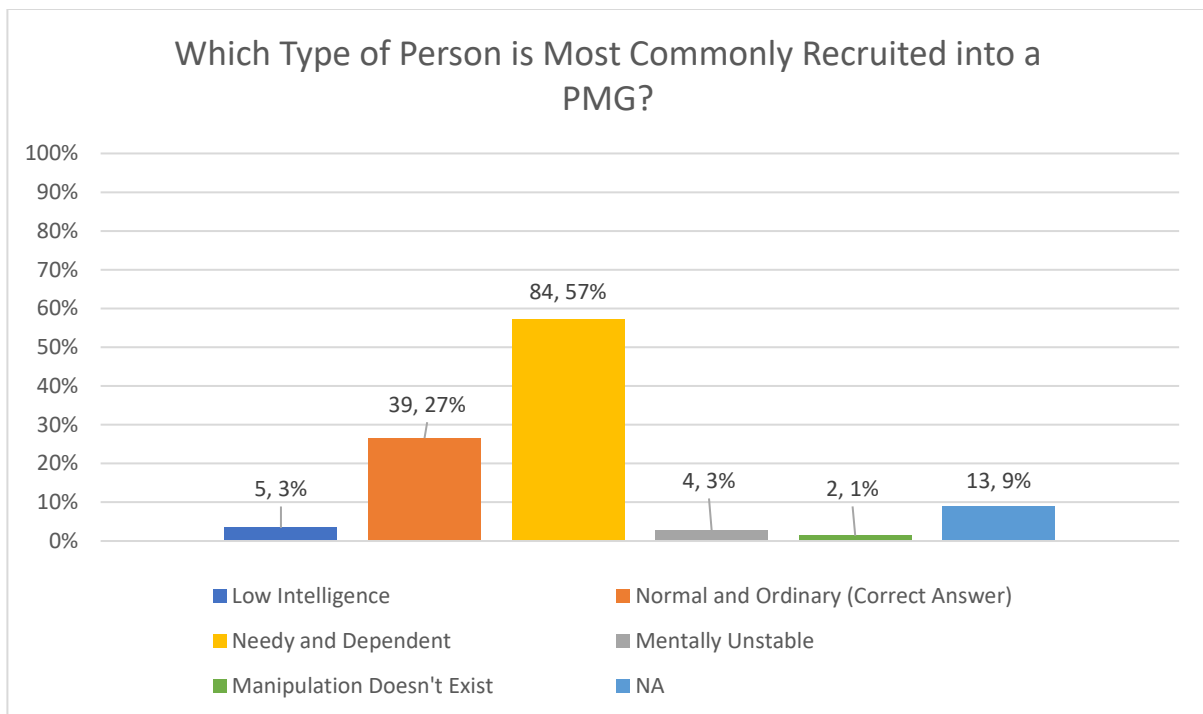
Figure 35

Bar Chart of Who is Vulnerable to Psychological Manipulation (n = 147)
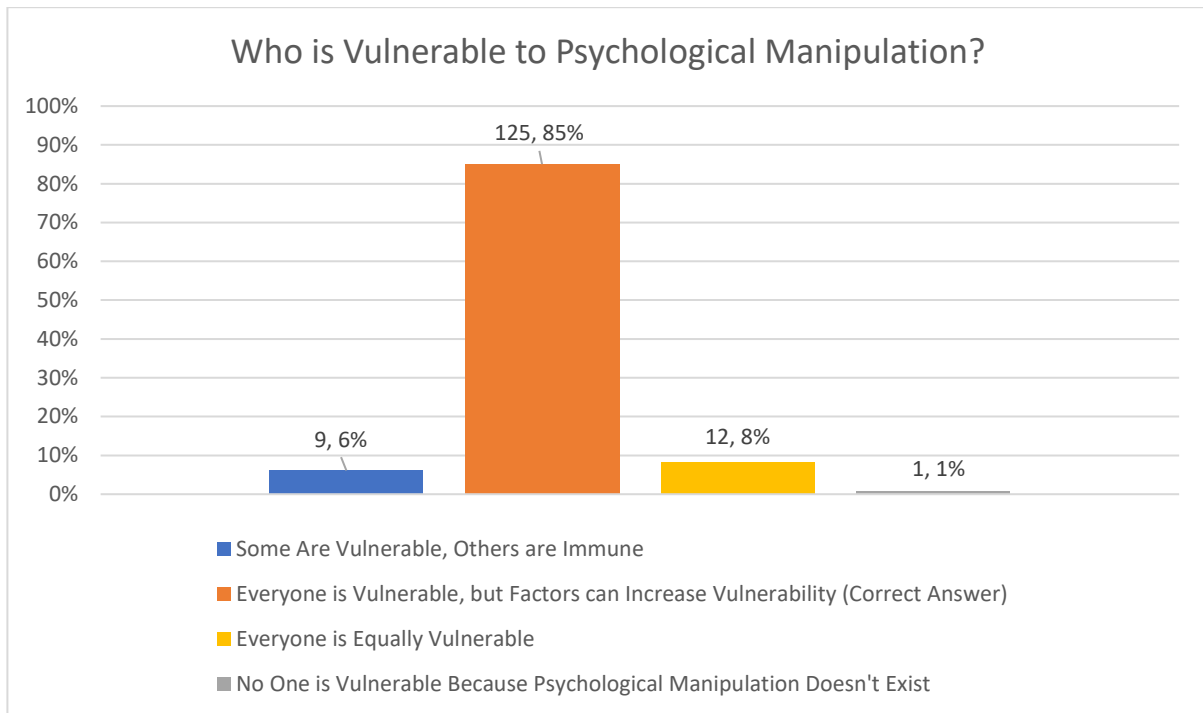
Figure 36

Bar Chart of Defense Against Psychological Manipulation (n = 147)
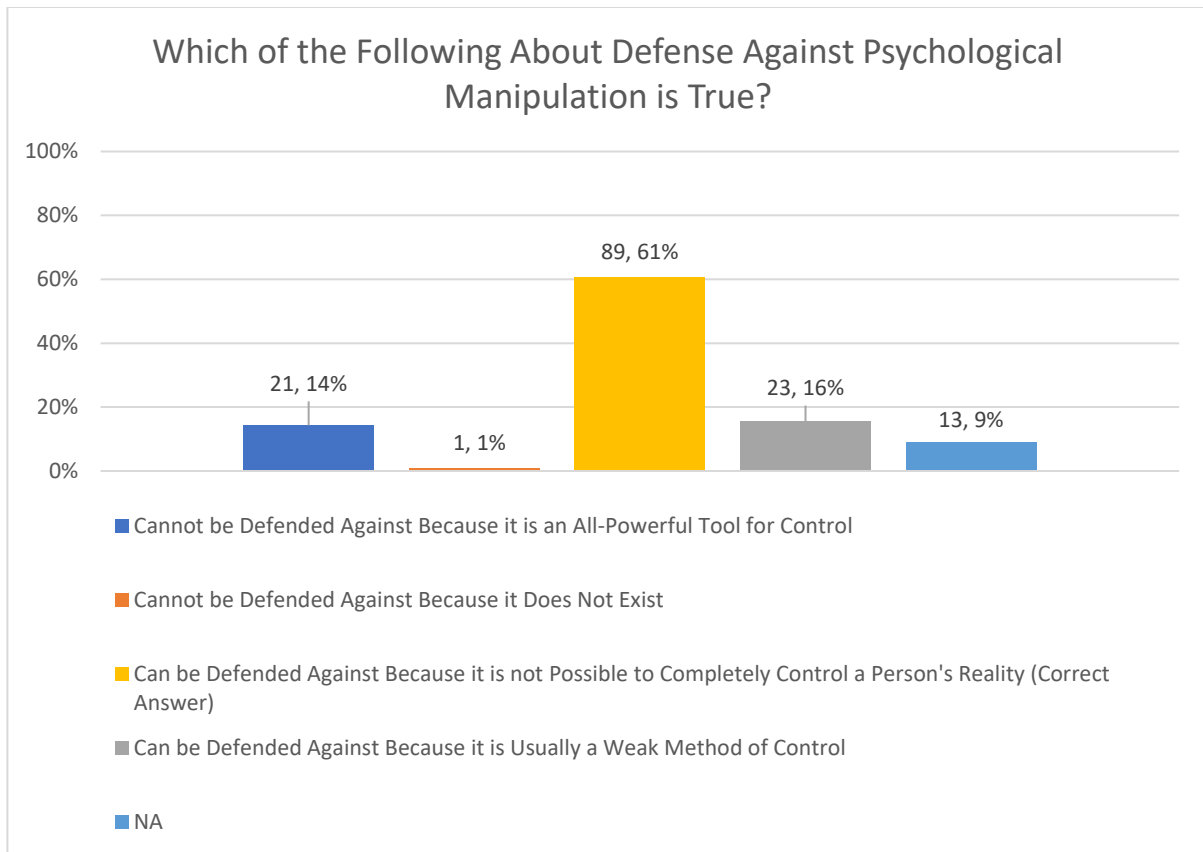
Point-Biserial Correlation Analysis for Biological Sex

The point-biserial correlation estimate r_{pb} for biological sex was 0.103, with a 95% confidence interval of -0.067 and 0.266. This is a measure of the correlation between a respondent being female and their composite thought-reform literacy score. It corresponds to a low effect size as r_{pb} is near 0.1. As the p value for this correlation was 0.234, this result was not statistically significant. The percent of variance in the test scores explained by the sex variable is r_{pb}^2 and was equal to 0.011, suggesting that the variability in the composite thought-reform literacy scores was either minimally related or not related to the biological sex of the respondents.

Point-Biserial Correlation Analysis for Belief in Self-Vulnerability

The point-biserial correlation estimate r_{pb} for belief in self-vulnerability was 0.251, with a 95% confidence interval of 0.090 and 0.398. This is a measure of the correlation between a respondent who believes they could be lured into a PMG or psychologically manipulative relationship and their composite thought-reform literacy score. It corresponds to a low to moderate effect size as r_{pb} is between 0.1 and 0.3. As the p value for this correlation was 0.0025, this result was statistically significant. The percent of variance in the test scores explained by the belief in self-vulnerability variable is r_{pb}^2 and was equal to 0.063, suggesting that approximately 6.3% of the variability in the composite thought-reform literacy scores can be attributed to the humility of the respondents.

As this result was statistically significant, a follow-up regression model using humility as the sole predictor variable was run for this variable to investigate what the predicted change in test score was between respondents who denied being vulnerable to thought reform and those who were humble about their vulnerability. The intercept score was 33.71 and the estimate for the change in score for those who were humble was 5.10, with a 95% confidence interval of between 2.44 and 7.76. The model was highly statistically significant as the p for the score change estimate was equal to 0.0002. The adjusted R^2 value was 0.091, suggesting that 9.1% of the variability in composite thought-reform literacy scores in the regression model was related to respondent humility. However, it is important to note that when the two respondents who denied the existence of thought reform were removed from this regression analysis, the intercept score rose to 37.15 with a predicted positive score change of 1.65 for the respondents who were humble about their vulnerability. Since multiple regression models are sensitive to the presence of outliers, this smaller score differential should be interpreted as

the more accurate estimate of the typical score difference between those who were humble and those who were not. Chapter 5 discusses the assumptions behind this estimate of the score differential that could introduce error, including that the composite scores were not normally distributed.

Hierarchical Multiple Regression Results

Table 20 shows the results of the five-step hierarchical multiple regression analysis. The following are the reference vectors for each of the demographic variables, in the order they appear in the hierarchical multiple regression: the age range 18-25; not having a high school diploma or equivalent; identifying as poor; being white; and being male. These reference vectors are not labeled separately in Table 20 because they are represented by the Intercept value. The table reports changes in the predicted composite thought-reform literacy score for changes in the demographic variables – thus, each demographic characteristic that appears in the table shows the predicted change in test score compared to the previous demographic value (for the variables that are staircase coded) or the reference vector (for sex and race/ethnicity). For example, the estimate for the variable "56-65" is the expected change in test score for adults aged 56 through 65 compared to the previous age group of adults aged 46 through 55. The four non-Intercept instances of $p < 0.05$ are due to outliers in the data and are discussed in detail in Chapter 5. After removal of outliers from the sample, no statistically significant changes were found between any demographic category and composite literacy test scores in the sample.

Table 20

Hierarchical Multiple Regression Results

Variable	Estimate	p	SE	R^2	ΔR^2
Step 1				0.091	0.042
Intercept	36.1	2E-16	3.54		
26-35	2.23	0.597	4.21		
36-45	1.09	0.704	2.85		
46-55	-6.00	7.87E-3	2.22		
56-65	6.13	3.73E-3	2.07		
66-75	-0.89	0.677	2.14		
76-85	-2.14	0.407	2.57		
86+	-5.52	0.502	8.19		
Step 2				0.145	0.054
Intercept	36.1	2.36E-8	6.05		
26-35	2.52	0.452	3.34		
36-45	0.15	0.949	2.32		
46-55	-1.97	0.285	1.84		
56-65	3.43	0.042	1.67		
66-75	-1.12	0.508	1.68		
76-85	-1.82	0.393	2.12		
86+	-7.42	0.258	6.53		
HS	-5.11	0.353	5.48		
Some College / Vocational	4.24	0.034	1.97		
Associate	0.71	0.728	2.04		
Bachelor's	0.38	0.827	1.75		
Master's / Specialist	0.86	0.609	1.68		
PhD / Professional Doctorate	0.52	0.832	2.45		
Step 3				0.149	0.029
Intercept	36.5	2.51E-5	8.31		
26-35	2.37	0.500	3.47		
36-45	0.29	0.904	2.41		
46-55	-2.05	0.279	1.88		
56-65	3.18	0.078	1.79		
66-75	-0.74	0.678	1.77		
76-85	-1.70	0.468	2.33		
86+	-6.44	0.354	6.91		
HS	-2.53	0.710	6.78		
Some College / Vocational	3.54	0.094	2.10		
Associate	0.87	0.684	2.14		
Bachelor's	0.26	0.886	1.82		
Master's / Specialist	0.86	0.626	1.76		
PhD / Professional Doctorate	0.39	0.880	2.54		
Working Class	-3.44	0.420	4.25		
Middle Class	1.56	0.275	1.42		

Variable	Estimate	p	SE	R²	ΔR²
Affluent	-2.21	0.534	3.55		
Step 4				0.172	0.020
Intercept	35.5	6.01E-5	8.50		
26-35	2.05	0.561	3.51		
36-45	0.53	0.828	2.44		
46-55	-2.17	0.268	1.95		
56-65	3.51	0.061	1.85		
66-75	-0.52	0.779	1.83		
76-85	-1.81	0.445	2.36		
86+	-6.52	0.351	6.96		
HS	-2.41	0.724	6.82		
Some College / Vocational	3.14	0.150	2.16		
Associate	1.30	0.555	2.20		
Bachelor's	0.39	0.831	1.85		
Master's / Specialist	0.75	0.681	1.82		
PhD / Professional Doctorate	0.49	0.850	2.57		
Working Class	-2.75	0.551	4.60		
Middle Class	1.66	0.262	1.47		
Affluent	-2.30	0.520	3.57		
Native American	7.11	0.291	6.70		
Hispanic	2.62	0.497	3.85		
Hawaiian	0.50	0.940	6.65		
Mixed Race	3.04	0.508	4.58		
Step 5				0.129	-0.042
Intercept	33.4	4.01E-8	5.65		
26-35	2.53	0.286	2.36		
36-45	0.10	0.950	1.62		
46-55	0.92	0.493	1.34		
56-65	0.46	0.715	1.25		
66-75	-0.69	0.572	1.22		
76-85	-1.67	0.290	1.57		
86+	-6.63	0.158	4.66		
HS	0.72	0.875	4.57		
Some College / Vocational	-0.92	0.535	1.48		
Associate	0.98	0.505	1.46		
Bachelor's	0.48	0.695	1.23		
Master's / Specialist	0.43	0.721	1.21		
PhD / Professional Doctorate	0.83	0.628	1.71		
Working Class	0.87	0.776	3.06		
Middle Class	0.06	0.949	0.98		
Affluent	-1.43	0.549	2.37		

Variable	Estimate	*p*	SE	R^2	ΔR^2
Native American	2.97	0.507	4.47		
Hispanic	1.00	0.696	2.56		
Hawaiian	1.56	0.725	4.42		
Mixed Race	4.37	0.159	3.08		
Female	0.39	0.632	0.80		

Answering Research Questions and Rejection of Null Hypotheses

The significance level threshold was selected to be $\alpha = 0.05$ and was used to determine whether each null hypothesis should be rejected based on the data analysis results. Table 21 summarizes these results. In total, one null hypothesis, NH6, was rejected and the other five null hypotheses were not rejected based on the point-biserial correlation tests and hierarchical multiple regression model analysis discussed earlier in this chapter. NH6 was rejected in favor of the alternative hypothesis that there is a non-negligible positive correlation between respondents who were humble about their own vulnerability to thought reform and their composite literacy test scores.

Table 21

Null Hypotheses Results

Label	Description	Result
NH1	Respondent age is not correlated with composite thought-reform literacy.	Failure to Reject
NH2	Respondent educational attainment is not correlated with composite thought-reform literacy.	Failure to Reject
NH3	Respondent subjective social status is not correlated with composite thought-reform literacy.	Failure to Reject
NH4	Respondent race/ethnicity is not correlated with composite thought-reform literacy.	Failure to Reject
NH5	Respondent sex is not correlated with composite thought-reform literacy.	Failure to Reject
NH6	Respondent belief in self-vulnerability to thought reform is not correlated with composite thought-reform literacy.	Rejected in favor of alternative hypothesis

Table 22 summarizes the answers to the research questions posed at the beginning of this study.

Table 22

Answers to Research Questions

Label	Description	Final Result
RQ0	What is the degree of thought-reform literacy among adult South Dakotan laypeople?	Average composite score of 37.03 out of 47 (~ 78.79% correct); 38.89 out of 47 with outliers removed (~ 82.74% correct)
RQ1	What is the relation between age and the degree of composite respondent thought-reform literacy?	The regression model did not support a significant relation between age and literacy scores.
RQ2	What is the relation between educational attainment and the degree of composite respondent thought-reform literacy?	The regression model did not support a significant relation between educational attainment and literacy scores.
RQ3	What is the relation between subjective social status and the degree of composite respondent thought-reform literacy?	The regression model did not support a significant relation between subjective social status and literacy scores.
RQ4	What is the relation between race and ethnicity and the degree of composite respondent thought-reform literacy?	The regression model did not support a significant relation between race and ethnicity and literacy scores.
RQ5	What is the relation between sex and the degree of composite respondent thought-reform literacy?	The regression model did not support a significant relation between sex and literacy scores.
RQ6	What is the relation between belief in self-vulnerability to thought reform and the degree of composite respondent thought-reform literacy?	The data supports a low to moderate positive correlation between humility of one's own vulnerability to thought reform and literacy scores.

CHAPTER 5

ANALYSIS AND DISCUSSION

The previous chapter presented the data obtained from the TRLQ-SDL as well as the statistical analyses performed to assess correlations between the predictor variables and composite literacy scores. This chapter interprets these findings by discussing the following: what can be inferred from questions removed after the pilot survey; the impact of various sources of error on the survey estimates; how the results compare to the previous literature; what can be inferred from the responses to individual test questions; the impact of outliers on the survey statistics; and what can be inferred from the regression and point-biserial correlation analyses.

Questions Cut After Pilot Survey

Before interpreting the final survey results, it is useful to consider the insights gained from the questions removed after the pilot survey. Appendix O contains the survey questions removed from the questionnaire as a result of the pilot facility and discrimination analysis. These questions were cut because of extreme facility values, negative discrimination, or close to zero discrimination. Although these questions were not utilized in the final survey due to their poor statistical qualities, they still reveal aspects of thought-reform literacy that may be useful for researchers and are thus discussed below.

Facility scores of 1.0 indicated questions that were too easy for respondents, and represent aspects of thought-reform literacy that everyone in the pilot sample (and presumably

close to 100% of the South Dakota adult population) were competent in. The knowledge

tested by the question with facility scores of 1.0 included familiarity with Adolf Hitler, the

Nazi movement or The Holocaust, as well as the 9/11 terrorist attacks; the knowledge that

psychological manipulators often utilize fear to control their victims; the recognition that

some children are currently being harmed in psychologically manipulative environments;

knowledge that psychological manipulation is possible within internet communities; the

recognition that psychological manipulation occurs in America; and that children, teenagers,

politicians, university professors, and adults over the age of 65 can all be subjected to

psychological manipulation.

Several questions had negative discrimination, indicating that respondents who

answered them correctly tended to do worse on the rest of the literacy test. Negative

correlation suggested that these questions did not belong in the final questionnaire, perhaps

because they belong to a different domain of knowledge entirely or there were problems with

their phrasing that would need to be modified before they can be used in literacy tests in the

future. These questions included familiarity with the term "mind control"; the question

distinguishing between education, advertising, and psychological manipulation as separate

influence paradigms; the question asking whether mental harm is a common outcome of

participation in PMGs; the question asking if the impacts of psychological manipulation are

always negative; the question asking why people participate in dangerous groups; and the

question asking why people don't "just leave" a PMG that is abusing them.

The questions with positive discriminations near zero were not statistically desirable

as there was uncertainty as to whether they were in the same domain of knowledge as the rest

of the knowledge test or whether their discriminations would be negative with repeated

measurement. Thus, although they may represent useful knowledge about thought-reform literacy, the pilot data suggested there were more robust alternatives within their respective content areas. The questions with near-zero discrimination included familiarity with the term "coercion"; the question asking whether psychological manipulation exists; the question asking whether isolation is a common tactic of psychological manipulators; the question asking if psychological manipulation occurs within totalitarian regimes; the question comparing the prevalence of PMGs based on their membership sizes; the question asking how many psychologically manipulative groups and relationships are operating in America; and the question asking if humility about one's own vulnerability to psychological manipulation is protective.

Impact of Survey Nonresponse on Estimates

If there are systematic statistically significant differences between respondents and nonrespondents, then some portion of this study's maximum nonresponse rate could represent error present in the survey statistics. The maximum range of nonresponse error for this survey was estimated in Chapter 4 to be between 67% and 70.6%, depending on whether the vacancy rate of South Dakota is considered. These estimates represent the largest margin of error due to nonresponse bias for any given test statistic. The influence of nonresponse error is difficult to interpret as no separate analysis of nonresponse was conducted in this study, and the actual nonresponse bias for each individual statistic exists in the range of 0% and the maximum of 67% error and could change drastically for each individual test measure. For instance, it is unknown if the true rate at which South Dakotan adults recognized the Jonestown tragedy is close to the reported sample statistic of 84.4%. If 100% of the nonrespondents happened to

not recognize Jonestown, then the true rate of Jonestown recognition would be 27.9% – a

score difference of 56.5% – illustrating the wide range of uncertainty when considering the

potential impact of nonresponse on the survey estimates.

Comparing Demographic Variables with Reference Statistics

This section compares the reference demographic statistics from Table 14 in Chapter 3

to the demographic characteristics of this study's sample. Over- or under-representation of

certain demographic categories can suggest a bias in the sample compared to the broader

South Dakotan adult population. To the extent that nonrespondents in under-represented

groups differ in a statistically significant way to those who are more well-represented, these

differences in demographic estimates represent nonresponse error in the survey statistics.

Since nonresponse was not analyzed in this study, the disparities mentioned here should be

interpreted as possible sources of error and might serve as useful areas of focus for

researchers conducting future surveys of this kind when investigating nonresponse error.

Table 23 summarizes the differences between the survey sample demographics and the

demographic characteristics of the whole South Dakotan adult population. Some demographic

categories were removed because there were no reference statistics for those categories. The

sample data percentages were calculated after removing NA responses (since NA is not a

category represented in the reference data), so these percentages are different than those

reported in the bar charts of demographic data reported in Chapter 4. The 95% Confidence

Estimate column shows the maximum percent difference in these demographic estimates that

would be expected from sampling error alone for each demographic category – when the

absolute value in this column is less than the percent difference between the sample and

reference data, it indicates the presence of nonresponse bias as an explanation for the

discrepancy in the over- or under-representation of the corresponding demographic category.

Table 23

Percent Difference Between Sample and Reference Demographic Data

Demographic Category	Reference Data Percentage (%)	Sample Data Percentage (%)	Percent Difference Between Sample and Reference Data (%)	95% Confidence Estimate (%)
Age				
18-25	14.03	3.62	-10.41	±3.12
26-35	17.12	9.42	-7.70	±4.87
36-45	15.32	13.77	-1.55	±5.75
46-55	14.55	17.39	2.84	±6.32
56-65	17.24	19.57	2.33	±6.62
66-75	12.61	21.74	9.13	±6.88
76-85	6.17	13.77	7.6	±5.75
86 or older	2.95	0.72	-2.23	±1.41
Sex				
Female	49.7	59.56	9.86	±8.25
Male	50.3	40.44	-9.86	±8.25
Race/Ethnicity				
Native American	11.1	0.72	-10.38	±1.41
Asian	2.1	0.72	-1.38	±1.41
Black or African American	3.0	0.00	-3.0	±0.00
Hispanic	4.4	2.17	-2.23	±2.43
Native Hawaiian or Pacific Islander	0.2	1.45	1.25	±1.99
White	85.7	95.65	9.95	±3.40
Subjective Social Status				
Poor	12.3	3.03	-9.27	±2.92
Working Class	37.83	27.27	-10.56	±7.60
Middle Class	45.42	66.67	21.25	±8.04
Affluent	4.45	3.03	-1.42	±2.92
Educational Attainment				
Less than high school diploma	9.73	1.40	-8.33	±1.93

Demographic Category	Reference Data Percentage (%)	Sample Data Percentage (%)	Percent Difference Between Sample and Reference Data (%)	95% Confidence Estimate (%)
High school diploma or equivalent	29.92	14.69	-15.23	±5.80
Some college or vocational training	22.94	15.38	-7.56	±5.91
Associate's Degree	10.92	13.99	3.07	±5.69
Bachelor's Degree	18.82	30.77	11.95	±7.56
Master's or Specialist Degree	6.65	16.78	10.13	±6.12
Doctorate Degree	1.01	6.99	5.98	±4.18

The following age categories were likely underrepresented due to nonresponse bias: 18-25, 26-35, and 86 or older. Overrepresented age ranges included 66-75 and 76-85. The proportion of both biological sexes in the sample were outside the expected bounds due to sampling error, indicating an overrepresentation of women and underrepresentation of men. Those who identified as "poor" or "working class" were less likely to respond than those who identified as "middle class," whereas the proportion of responses from those who identified as "affluent" was within the 95% confidence interval. White respondents were overrepresented, while African Americans and Native Americans were underrepresented. The discrepancies observed for the other race and ethnicity categories could be attributed to sampling error. Those with a Bachelor's degree or higher were overrepresented and those with vocational training or some college or below were underrepresented in the sample; only the deviation in the proportion in the sample with Associate's degrees could be attributed to sampling error alone.

Overall, the influence of nonresponse bias on demographic characteristics was as follows. South Dakotan adults who were male, had less than an Associate's degree, identified as "poor" or "working class," were either over the age of 85 or under the age of 36, or were Black or Native American were underrepresented in the survey. Those South Dakotan adults who were female, had a Bachelor's degree or higher, identified as "middle class," were between the ages of 66 and 85, or were white were overrepresented. Any discrepancies in the observed proportion of response from the other demographic categories were explainable by sampling error alone. Post-stratification weighting was not conducted due to the added statistical complexity of introducing more weights, the risk of collinearity effects when using multiple weights, and the risk of over adjusting based on one or a few respondents' answers (which would be particularly problematic for the race and ethnicity variable in this study) (Elliott, 2020).

Interpreting Individual Test Question Results

This section provides commentary on the individual question bar charts presented in Chapter 4 (Figure 18 through Figure 36). Since most of these charts could not be directly compared to previous literature, the majority of the insights discussed here represent completely novel quantitative statistics in the thought-reform literacy research field.

Analysis of Questions in Content Area 1 – Ontology

The sample's recognition of eight different thought-reform synonyms is shown in Figure 18. The most-recognized term was "brainwashing", with 144 of 147, or 98%, of the sample stating they were familiar with the phrase. The second and third-most recognized terms were "psychological abuse" and "psychological manipulation," with 138 (93.9%) and

134 (91.2%) of the sample being familiar with the phrases, respectively. The fourth-most recognized term was "gaslighting" with 122 (83%) of the respondents being familiar; in fifth place was "radicalization" with 104 (70.7%); and sixth place was "undue influence" with 100 (68%). "Coercive control" was the second-least recognized phrase with 89 (60.5%) respondents having recognized the phrase. Only one phrase, "thought reform," was not recognized by the majority of the sample – exactly 67 (45.6%) respondents answered "yes" and 67 (45.6%) others answered "no" when asked whether they recognized it, with 13 (8.8%) being unsure or skipping the question.

As mentioned in Chapter 2, the term "brainwashing" has unscientific connotations and thus the leading phrase "psychological manipulation" was utilized in the survey booklet instead – the sample data suggested that this word choice was appropriate because the majority of respondents were already familiar with the term "psychological manipulation" and the sample was comparatively less familiar with other alternatives such as "undue influence" or "gaslighting." Although the most accurate term – "thought reform" – was the least-recognized, many South Dakotan adults had heard the phrase "thought reform," suggesting that many laypeople have been exposed to the preferred phrase used by cultic studies scholars.

Figure 20 showed the results of the question about whether psychological manipulation often involves control of a target's environment. Most respondents answered correctly with "yes" (125, or 85%), with 20 (13.6%) "no" responses and 2 (1.4%) selecting the "manipulation doesn't exist" option. Thus, a total of 15% of the sample either discounted the role of milieu control entirely or underestimated how integral it is to psychologically manipulative environments.

Figure 21 showed that the majority of the sample (122, or 83%) correctly recognized that psychological manipulation can occur either deceptively or by force. No one in the sample selected the "only by force" option and 24 (16.3%) thought it was only possible via deception. A single respondent (0.7%) selected the "manipulation doesn't exist" option for this question. This data suggested that most South Dakotan adults are aware of the role of deception in thought reform environments, with about 16.3% discounting the possibility that psychological manipulation can be physically forceful.

Figure 22 showed which components of the mind that the sample thought could be influenced by other human beings. Just 8 (5.4%) thought influence was limited to changing only beliefs and behaviors. Almost a fourth (36 or 24.5%) thought influence was limited to behavior, beliefs, thoughts, and emotions (corresponding to the four components of the BITE model). A small portion (7 or 4.8%) answered that the four aforementioned components as well as memories and use of language could be influenced. The majority of the respondents (86 or 58.5%) answered correctly that all eight of the mentioned psychological components could be influenced or changed by others, which included identity and personality. Respondent nonresponse numbered 10 (6.8%). Thus, the majority of South Dakotan adults in the sample were knowledgeable about the extent to which the human mind can be manipulated and changed by others.

Figure 23 displayed the results of the question How Manipulation Works. The majority of the sample (119 or 81%) answered correctly with the explanation that "the manipulated person is taken through a series of changes without their knowledge or consent." Only one respondent (0.7%) selected the "tortured and physically restrained" distractor. The "drugs, sex, and other pleasures" explanation distractor was selected by 25 or 17% of the

sample. The two thought-reform deniers (1.4%) selected the "it is unknown how the manipulation process would work because psychological manipulation is not currently possible" distractor. These data suggest that most South Dakotan adults understood how thought reform works in general, and that a minority (about 19%) had incorrect conceptions, with the most common misconception that thought reform primarily works through drugs, sex, and other pleasures.

Analysis of Questions in Content Area 2 – Harms and Tragedies

Figure 19 showed the recognition of thought-reform tragedies among the sample. Six of the eight tragedies were recognized by the majority of the sample of South Dakotan adults, with the most-recognized incident being the Manson Family murders (143 out of 147, or 97.3% recognition). The second-most recalled tragedies were Waco and Native American Genocide, which were tied with 135 respondents each (91.8%). The fourth, fifth, and sixth most-recognized incidents were Jonestown (124 respondents or 84.4%), the kidnapping of Patty Hearst (111 or 75.5%) and the CIA MK-ULTRA mind control experiments (101 or 68.7%). The two tragedies that were not recalled by the majority of the sample were Heaven's Gate and Aum Shinrikyo – 65 (44.2%) responded "yes" to recognizing Heaven's Gate while 82 (55.8%) others selected "no," while 45 (30.6%) responded "yes" to Aum Shinrikyo while 94 (63.9%) selected "no" and 8 (5.4%) skipped the question or were unsure. These results illustrated that South Dakotan adults in general were familiar with many of the foundational thought-reform tragedies in American history but were comparatively less familiar with the Heaven's Gate mass-suicide and the Aum Shinrikyo sarin gas attack in Japan, the latter of which was the only international incident without a direct connection to America that was tested in the TRLQ-SDL.

Figure 24 displayed the sample's answers to the Physical Harm and Financial Harm questions. The majority of respondents correctly answered that both physical harm (123 of 147 or 83.7%) and financial harm (141 or 95.9%) were typical consequences for people who were harmed by their participation in a PMG. For physical harm, 10 (6.8%) of respondents answered that it was not a typical consequence, whereas 4 (2.7%) responded the same for financial harm. The two thought-reform deniers (1.4%) in the sample responded "manipulation doesn't exist" for both questions. Respondents were comparatively less sure about the physical harm question as it had an item nonresponse count of 12 (8.2%) while financial harm did not have item nonresponse. This data suggested that the physical and financial risks of participation in a PMG were well-known among the South Dakotan adult population, but the sample was overall less sure about the presence of physical harm in PMGs.

Figure 25 showed the results for the Cult Leader question. The majority of the sample got this question incorrect, with 44 of 147 (29.9%) selecting that all leaders of PMGs were "intelligent people with compelling ideologies" and 40 (27.2%) selected that all PMG "leaders are so charismatic that they can charm people with little effort" distractor. One respondent (0.7%) selected the "leaders are ambitious people who develop secret societies based on occult rituals" distractor. The rest of the sample (62 or 42.2%) correctly identified that all PMG "leaders are abusive people who have learned how to use psychological manipulation techniques." This data suggested that many South Dakotan adults were unaware that the defining factor of those who become leaders of PMGs is not charisma, intelligence, or secrecy and ambition, but rather the abusive temperament (e.g., psychopathy, narcissism) that inclines certain individuals to exploit and control others with though-reform techniques.

Analysis of Questions in Content Area 3 – Prevalence

Figure 26 showed the sample's responses to whether psychological manipulation was possible in a variety of social contexts. All nine of the social contexts tested were correctly identified as possible situations where psychological manipulation could occur by the majority of the sample, with all of them having 89% or more of the sample answering correctly. The two most difficult social contexts for the respondents were "grooming" (16 answered "no" or 10.9%) and "business training programs" (15 answered "no" or 10.2%). This was followed by "multi-level marketing firms" (10 answered "no" or 6.8%), and a fourth-place tie between schools and universities and therapy and life coaching (9 "no" responses or 6.1% for each). The sixth most difficult context was a tie between "families" and "political movements" (5 answered "no" or 3.4%). The second least-difficult context was "religious movements" (3 "no" answers or 2.0%). The easiest social context was "romantic relationships" with the only 2 "no" responses (1.4%) coming from the thought-reform deniers in the sample.

These results suggested that although most respondents were aware that psychological manipulation could occur in any of the social situations listed, a minority of South Dakotan adults thought that certain contexts were exempt from this risk, in particular business training programs, grooming, and multi-level marketing. As was mentioned in Chapter 2, scholars have suggested that grooming and multi-level marketing involve thought reform, thus two of the social contexts that were least associated with thought reform by the survey sample were actually two contexts where thought reform is known to be prevalent.

Figure 27 showed that only one respondent (0.7%) thought that human trafficking does not occur in the state of South Dakota, which indicated that nearly everyone in the population was aware that human trafficking occurs in South Dakota. Due to this question's

extreme facility values in both the pilot and final surveys, it should be replaced with a different question in future versions of the TRLQ-SDL and its derivatives.

Figure 28 displayed the results from the question asking whether psychological manipulation occurs in non-American democracies. The majority of the sample (135 or 91.8%) of the sample correctly answered "yes," whereas 4 (2.7%) answered "no" and 8 (5.4%) others skipped the question or were unsure. This data suggested that a minority of people in the sample thought that psychological manipulation was unique to the American democracy.

Figure 29 showed the breakdown of how many people in the world the sample thought were being psychologically manipulated. Only 47 (32%) of respondents correctly selected that "a billion people or more" were currently being psychologically manipulated in the world. The most popular response was "millions of people, but less than a billion" which was selected by 72 (49%) respondents. The "thousands of people, but less than a million" distractor was selected by 15 (10.2%) in the sample, and 11 (7.5%) did not answer. The two thought-reform deniers (1.4%) selected the "0 people" distractor. These results suggested that only a minority (11.6%) of South Dakotan adults thought that psychological manipulation was a small issue (thousands of victims or less in the whole world), whereas the majority (82%) knew that the worldwide victims of thought reform totaled in the millions or more.

Analysis of Questions in Content Area 4 – Defense and Vulnerability

Figure 30 showed the sample's responses for the five types of people that can be lured into a psychologically manipulative group or relationship. Respondents correctly identified each of the five types of people as vulnerable at a rate of no less than 83.7%. The sample was most optimistic about the immunity of medical doctors to psychological manipulation (15 or

10.2% answered "no") followed by lawyers (13 "no" responses or 8.8%), mental health

professionals (11 "no" responses or 7.5%) and military personnel (7 "no" responses or 4.8%).

The two thought-reform deniers (1.4%) were the only respondents that thought that adults

below 65 were immune to psychological manipulation. This data suggested that most South

Dakotan adults knew that anyone can be lured into a psychologically manipulative group or

relationship, but a minority thought that certain professions were exempt from this

vulnerability.

Figure 31 showed the breakdown of the sample's responses to the question about

terrorist groups recruiting educated professionals. The majority of the respondents (135 or

91.8%) correctly answered that it was true that terrorist groups had recruited educational

professionals, with 4 (2.7%) answering "false" and 8 (5.4%) skipping the question. This data

suggested that most South Dakotan adults were aware that terrorist PMGs were capable of

recruiting educated professionals including doctors, engineers, lawyers, and professors.

Figure 32 displayed the results from the questions asking whether learning about

psychological manipulation and defending privacy were effective security controls against

thought reform. The majority of the sample answered "yes" that "learning more about how

psychological manipulation works" (132 or 89.8%) and "defending the privacy of your

personal information" (131 or 89.1%) were actions that would help defend oneself against

psychological manipulation. A small portion (5 or 3.4%) and (6 or 4.1%) answered "no,"

respectively. For both questions, the two thought-reform deniers selected the "manipulation

doesn't exist" distractor, and both questions had item nonresponse counts of 8 (5.4%). This

data suggested that the majority of South Dakotan adults understood that learning more about

psychological manipulation and defending their privacy are effective safeguards for defending against thought reform.

Figure 33 showed the breakdown of responses for the legal protections question. Nearly two-thirds of the sample (96 or 65.3%) correctly answered that there are almost no legal protections against psychological manipulation in the United States. The most popular distractor was that psychological manipulation was a state crime in some, but not all, of the 50 states with 18 (12.2%) of respondents selecting it. Those who thought psychological manipulation was a state crime in all 50 states totaled 6 (4.1%) and 10 (6.8%) thought it was a federal crime. The item nonresponse count was 17 (11.6%). This data suggested that the majority of adults in South Dakota are aware that the United States federal and state governments alike do little to protect their minds against the threat of psychological manipulation.

Figure 34 displayed the sample's responses to the most commonly recruited by a PMG question. Only 39 (26.5%) respondents in the sample answered correctly that it is the normal and ordinary who are most commonly recruited by a PMG. The majority of the sample selected the distractor answer that it is the needy and dependent who are most often recruited (84 or 57.1%). The less popular distractors included the answers low intelligence (5 or 3.4%) and mentally unstable (4 or 2.7%). The two thought-reform deniers (1.4%) selected the "manipulation doesn't exist" distractor, and the item nonresponse count for this question was 13 (8.8%). This data suggested that more than 50% of South Dakotan adults had the false notion that most who are successfully recruited into cults are needy and dependent, but more than a fourth knew that normal people are the most often recruited.

Figure 35 showed the breakdown of responses for the Who is Vulnerable question. The majority of the sample (125 or 85%) answered correctly that "everyone is vulnerable, but some factors can increase vulnerability." A total of 9 (6.1%) thought some were vulnerable but others were immune, and 12 (8.2%) thought that everyone was equally vulnerable. One (0.7%) of the thought-reform deniers selected the "manipulation doesn't exist" distractor for this question. This data suggested that most South Dakotan adults know that although vulnerability to psychological manipulation is universal, there exist factors that influence each person's level of vulnerability.

Figure 36 displayed the results from the question about Defense Ontology. The majority (89 or 60.5%) of the sample answered correctly that psychological manipulation "can be defended against because it is not possible to completely control a person's reality." The distractor stating that psychological manipulation "cannot be defended against because it is an all-powerful tool for control" was selected by 21 (14.3%) of respondents. The response that psychological manipulation "can be defended against because it is usually a weak method of control" was selected by 23 (15.6%) of respondents. The item nonresponse count was 13 (8.8%). One (0.7%) of the thought-reform deniers selected the distractor stating that psychological manipulation "cannot be defended against because it does not exist." This data suggested that the majority of South Dakotan adults knew why thought reform could be defended against (that there are limits to controlling a person's reality) and that almost a third had incorrect conceptions of the ontology of defense against thought reform, including that it was all-powerful, a weak method of control, or that it does not exist.

Comparison to Previous Literacy Studies

It is important to discuss the statistics that can be compared to the results obtained by previous researchers. Perhaps the most meaningful statistic to compare is that of belief in self-vulnerability to thought reform. Nearly a third – 31.3% – of the survey respondents in this study believed it was not possible that they could "be lured into a psychologically manipulative group or relationship," whereas 66% admitted that it was a possibility. In the Maté et al. study, only between 2.4% and 17.0% of Barcelona secondary school adolescents across the control and experiment conditions believed they could be lured into a PMG, which included respondents who had undergone cult educational intervention (Maté et al., 2009). Comparing this to the general South Dakota population's rate of 31.3% belief in self-vulnerability with no educational intervention suggests that South Dakotan adults were far humbler about their vulnerability to thought reform than the adolescents in Spain. However, it is important to note that the people who participated in the Maté et al. study were not members of a geographically-defined population and were all adolescents. Additionally, the conditions for anonymity likely were not as strong as they were in this study, which may have influenced the likelihood that the Barcelona adolescents were willing to be completely honest about their feelings of vulnerability. Despite these caveats, the disparity in results may suggest the following: that adolescents in general are more likely to believe they are immune to thought reform than older adults. However, alternative explanations should not be ruled out until general population literacy surveys are conducted in Spain, as it is unknown if this disparity would appear in the non-adolescent population in Spain or if it would be confined to the adolescent secondary school population.

The 1992 Pfeifer study of undergraduate students at the University of Nebraska had found that 90.82% of the participants were familiar with either the Manson Family murders or

the Jonestown mass murder-suicide. Since the Pfeifer study combined the two topics, it is not possible to distinguish if the statistic is high because respondents were familiar with at least one of the topics, or if the majority of the respondents had heard of both Manson and Jonestown. Despite this ambiguity, the Pfeifer statistic is remarkably similar to the rate which South Dakotan adults reported being familiar with Jonestown – 84.4% – and Manson – 97.3% – suggesting that even after 32 years, many people are still familiar with these two seminal cult tragedies. However, it is important to note that the population in the Pfeifer study was limited to undergraduates at one university in Nebraska, and there are no larger geographically-defined reference statistics available to compare the statistics presented in this study. Thus, the Pfeifer statistic is of minimal utility in interpreting long term thought-reform literacy trends in the larger population of American adults.

Lastly, the poll that found that about 11% of American adults and 22% of millennials either had not heard of the Holocaust or were unsure if they had heard of it (Zauzmer, 2018) suggests that the Adolf Hitler and Holocaust question that was removed from the TRLQ-SDL due to the results of the pilot survey may be useful for other populations, or possibly that a larger pilot sample size or investigation of nonrespondents in the final sample would have revealed a larger proportion of people who were unfamiliar with these important topics. Due to the scarcity of literature on thought-reform literacy, none of the other questions reported in this study could be directly compared to previous literacy surveys, as most of the questions utilized in the TRLQ-SDL are original. Trends will not be measurable until follow-up studies using the same or similar curriculum are conducted in other populations.

Impact of Outliers and High Nonresponse on Statistics

The data analyses described in this report were repeated after removing outlier responses in order to determine if the outlier responses had a disproportionate impact on the survey statistics. The methodology for this included running three additional analyses – one where the thought-reform deniers (those who had unusually low scores on the TRLQ-SDL) were removed; one where respondents with item nonresponse counts of 7 or more were removed; and a third follow-up analysis which combined the previous two removals. The item nonresponse cutoff of 7 or more was chosen due to the fact that many of the respondents with item nonresponse greater than 7 had skipped an entire page of the survey booklet (corresponding to part of Content Area 3 – Prevalence and most of Content Area 4 – Defense and Vulnerability), suggesting their high nonresponse was due to survey fatigue and not uncertainty while answering individual questions. Since question nonresponses were treated as incorrect answers (and would thus lower composite literacy scores), it was important to confirm if survey fatigue had an impact on the survey statistics. The following measurements were analyzed in this manner: Cronbach's alpha; the facility and discriminant analysis results; the two point-biserial correlation analyses for biological sex and belief in self-vulnerability to thought reform; the regression model created for belief in self-vulnerability to thought reform; the hierarchical multiple regression analysis; and the literacy score statistics including average and standard deviation.

Influence of Outliers and High Nonresponse on Internal Reliability

Cronbach's alpha for the full survey sample data was 0.875. When respondents with high item nonresponse were removed, this alpha value increased slightly to 0.878. However, in both analyses where the thought-reform deniers were removed, alpha fell to between 0.747 and 0.748, suggesting that the inclusion of the thought reform deniers in the data substantially

increased the internal reliability of the TRLQ-SDL. The original alpha value was reported in

Chapter 4 since high item nonresponse did not appear to have an appreciable effect and the

influence of the thought-reform deniers is consistent with the purpose of the questionnaire;

that is, to distinguish the levels of knowledge of thought reform in the target population. The

difference of approximately 0.128 between the alpha of the full dataset and the dataset with

the thought-reform deniers removed indicates that a substantial portion of the internal

reliability of the TRLQ-SDL is associated with distinguishing between the thought-reform

deniers and other respondents.

Influence of Outliers and High Nonresponse on Facility and Discrimination

Three question facility scores were sensitive to the presence of the thought-reform

deniers in the sample: Romantic Relationships, Human Trafficking in SD, and Adults Below

65 had extreme facility scores of 1.0 after removal of the two thought-reform deniers. Due to

the facility scores equaling 1.0, these questions also had undefined discrimination scores after

removal of the outlier respondents from the sample. In future research, these questions should

be prioritized for modification or removal since they only had utility in distinguishing

between the thought-reform deniers and the typical respondent, whereas every other question

could distinguish degrees of thought-reform knowledge among the typical respondents.

The discriminations of certain test questions were sensitive to the presence of

respondents with high item nonresponse rates. The differences in the discrimination

correlations between the high nonresponse removals and the full sample were negligible (all

being less than 0.11 and most being less than 0.05). However, when the high nonresponse

respondents were removed, three questions' discrimination p values fell out of the statistical

significance range ($p = 0.102$ for Cult Leader; $p = 0.091$ for Legal Protections; and $p = 0.085$

for Most Commonly Recruited). The Cult Leader question did not have NA after mean

imputation so this rise in *p* was likely due to the temporary removal of the high NA records

(reducing the statistical confidence due to the increase in sampling error) and not because NA

had an effect on its discrimination. The Most Commonly Recruited and Legal Protections

questions both had high NA counts and modest discrimination values even before removing

outliers – thus, these two questions' comparatively weaker discriminations likely contributed

to their statistical significance being extra sensitive to the removal of instances of

nonresponse.

Removal of the thought-reform deniers, whether combined with removal of the

respondents with high item nonresponse or not, had a more pronounced impact on

discrimination scores. When the two thought-reform deniers were removed from the sample,

the correlation of the question Who is Vulnerable dropped below 0.1 and the following test

items' *p* values fell out of statistical significance range: Brainwashing; Boarding School Era;

Patty Hearst; Waco; Financial Harm; and Therapy/Life Coaching. However, all of these

effects disappeared when the removal of the thought-reform deniers was paired with removal

of the respondents with high item nonresponse, suggesting that their *p* values were being

reduced by survey fatigue.

Some outlier effects only appeared when both the thought-reform deniers and

respondents with high item nonresponse were removed from the sample. These included *p*

values that fell out of statistical significance for the following test questions: Manson Family;

Manipulation in Democracies; and Terrorist Recruitment of Professionals. Correlations that

dropped below 0.1 as a result of these removals included: Manson Family; Physical Harm;

Schools/Universities; Terrorist Recruitment of Professionals; Most Commonly Recruited; and Defense Ontology.

The following outlier effects happened in two of the analyses: when though-reform deniers were removed from the sample, and when both the thought-reform deniers and the respondents with high item nonresponse were removed from the sample. p values fell out of statistical significance range for: Environment Control; How Manipulation Works; Physical Harm; Cult Leader; Families; Religious Movements; Schools/Universities; Most Commonly Recruited; Who is Vulnerable; and Defense Ontology. Low correlations of 0.1 or below occurred for the following test items in this group: Environment Control; Cult Leader; and Religious Movements.

Influence of Outliers and High Nonresponse on the Point-Biserial Correlation Analyses

The outlier analyses did not impact the point-biserial correlation analysis for biological sex (p stayed between 0.192 and 0.234 and the estimated r_{pb} stayed between 0.103 and 0.113). The outlier analyses did not appear to have an impact on the point-biserial correlation analysis for belief in self-vulnerability to thought reform (p rose to 0.0355, which was still within the range of statistical significance, and the r_{pb} ranged between 0.182 and 0.253, which was close to the original value of 0.251). However, when investigating the regression model for belief in self-vulnerability, a major discrepancy appeared: the estimated literacy score difference between those who believed they were immune to thought reform and those who were humble changed from 5.100 ($p < 0.0003$) to 1.653 ($p = 0.049$) after the two thought-reform deniers were removed from the sample. This suggested that although the point-biserial correlation analysis detected a positive correlation between humility and composite test scores even after the thought-reform deniers were removed, the effect size

(represented by the predicted score difference) was greatly influenced by the outlier respondents.

Influence of Outliers and High Nonresponse on the Hierarchical Multiple Regression Analysis

The hierarchical multiple regression was minimally impacted by the outlier responses – almost no predictor variables were associated with any statistically significant p values in any model across all the outlier analyses. When analyzing the full sample there appeared to be a statistically significant reduction in scores between the age groups 36-45 and 46-55 (a score change of -6 with $p = 0.008$) and an increase in scores between the age groups of 46-55 and 56-65 (a score change of 6.13 with $p = 0.004$). Notably, this apparent difference in scores diminished with each step of the multiple regression model and disappeared completely after biological sex was included in step 5. Performing the outlier analyses on the hierarchical multiple regression model revealed that both thought-reform deniers were in the 46-55 age group, thus these two respondents had a pronounced impact on the score estimates for their age group. When these two respondents were removed from the multiple regression analysis, statistical significance across these age groups vanished, even in step 1 of the model when age was the only predictor variable present. The only other $p < 0.05$ occurred when educational attainment was added in step 2 of the model, where a similar statistically significant predicted score increase between those with only a high school diploma and those with some college was detected. Since this change also disappeared with the exclusion of the thought-reform deniers – as one of them was in the high school diploma category – this too could be explained by the presence of the outlier data and not due to broader patterns in the data.

Influence of Outliers and High Nonresponse on the Literacy Score Statistics

The outliers had an appreciable impact on the composite literacy score statistics. After removing both thought-reform deniers and the respondents with high item nonresponse, the weighted average composite score rose from 37.03 to 38.89, a score difference of 1.86. The unbiased sample standard deviation fell from 8.087 to 4.256 after these removals. Most of this discrepancy in the standard deviation was due to the presence of the thought-reform deniers – the standard deviation fell from 8.087 to 4.853 with just the removal of the two deniers from the sample, with the remainder of the 0.597 drop attributable to the respondents with high item nonresponse. The standard error fell from 0.667 to 0.364 after removal of all the outliers, and the adjusted 95% confidence interval estimate for this sample weighted average composite literacy score was between 38.18 and 39.61 out of 47. Outlier analyses were not conducted for the four content areas because their distributions were not normally distributed.

Interpreting the Influence of Predictor Variables

No demographic variable was found to be significantly correlated with the predicted composite test score of respondents after the removal of outliers from the sample. As discussed in Chapter 2, previous studies have demonstrated a correlation between negative attitudes towards cults and certain demographic characteristics such as those who are female, older, poorer, and have less educational attainment. However, since this is the first geographically-defined survey study to investigate only thought-reform knowledge, no quantitative reference data were available to interpret the hierarchical multiple regression results. One reason no statistically significant results were found may have been an insufficient sample size – perhaps some non-negligible effect sizes would have been detected with a larger sample size. Another possibility is that any correlations between the

demographic variables and composite literacy scores were small and would only be detectable

with very large sample sizes. Insofar as the quantitative measure of thought-reform literacy

can serve as a proxy for gauging someone's vulnerability to cult recruitment, the lack of any

clear patterns in the data is consistent with the common notion discussed by thought-reform

experts that those who are successfully recruited by cults come from all walks of life, that

everyone is vulnerable to thought reform. It is important to note, however, that multiple

follow up studies on various populations will be necessary before it is known if this finding is

generalizable. Also, a larger sample size or investigation of nonresponse bias in the South

Dakotan adult population could reveal demographic trends that this study did not detect.

The belief in self-vulnerability to thought reform predictor variable was significantly

correlated with composite literacy scores, as shown in the point-biserial correlation analysis in

Chapter 4. A low to moderate effect size was detected (r_{pb} between 0.184 and 0.251; r_{pb}^2

between 0.034 and 0.063), with the effect being more pronounced when the thought-reform

deniers were included in the analysis. The predicted score difference between those who

believed they were immune to thought reform and those who were humble about their

vulnerability was 5.1 ($p = 0.0025$ with 95% CI of 2.44 to 7.76) for the full sample and 1.65 (p

$= 0.0486$ with 95% CI of 0.02 to 3.28) after the thought-reform deniers were removed. Since

the outliers had a major influence on the score change estimate, the conservative

interpretation was that those who were humble scored approximately 1.65 more questions

correct on the TRLQ-SDL, on average.

Importantly, only between 0.034 and 0.063 of the variances in the composite literacy

test scores can be attributed to belief in self-vulnerability – indicating a relatively weak

correlation. On a 47-point questionnaire, a score difference of 1.65 is only a percent

difference of 3.5% - approximately equal to a single traditional grade category used in schools (e.g., the difference between a C+ and a B-). Thus, although this slight positive correlation indicates that the South Dakotan adults' attitude towards their own vulnerability to thought reform was related to how well they performed on the literacy test, those who assumed they were immune performed similarly to those who were humble.

In the context of the existing literature, this finding can be interpreted as validating the common notion in the thought-reform field that those who believe they are immune to cult recruitment are comparatively more vulnerable to thought reform than those who are humble about their vulnerability. This is because a quantitative estimate of a person's thought-reform literacy is likely related to their vulnerability, since experts emphasize that knowledge about the issue decreases the risk of cult recruitment, as discussed in Chapter 2. However, the relation between these variables is complicated by the fact that those who believed their minds were invulnerable to PMG recruitment scored almost as high as those who were humble – and in some individual cases scored higher than those who were humble – suggesting that it is possible for a person to simultaneously have a high thought-reform literacy yet also confidently assume they are invulnerable to it. For instance, one of the respondents with the highest sample score of 46 out of 47 denied being vulnerable to thought reform, and the other respondent did not answer the humility question. Overall, the relatively weak correlation between humility and composite scores suggests that the relation between belief in self-vulnerability to thought reform and literacy about the issue may not be as straightforward as the previous literature suggests. Follow up studies will be needed before it is known if this finding is specific to South Dakotan adults, whether a stronger correlation

would appear with a larger sample size, or whether other populations show similar correlations between humility and higher literacy scores.

Statistical Assumptions for the Belief in Self-Vulnerability Regression Analysis

It is important to assess the statistical assumptions behind the follow up regression analysis that was performed to estimate the score difference between those who were humble about their own vulnerability to thought reform and those who were not. Deviations from these assumptions could represent potential error in the score difference estimate of 1.65. Assumptions that were assessed included: that the sample of composite scores was normally distributed; that the prediction residuals were normally distributed; that there was an adequate ratio of observations to predictor variables; that the errors were independent; and that the variance was homogenous (Hatcher, 2013) – the other assumptions listed by Hatcher were either unambiguously met in this study, were already addressed (i.e., the outlier analysis addressed the impact of outliers), or were not applicable due to the humility predictor variable being dichotomous. As discussed in previous sections, the sample composite literacy scores were not normally distributed, as indicated by the Jarque-Bera Normality Test. Since the distribution of composite literacy scores deviated from a normal distribution, this could have introduced error in the score differential estimate as regression is sensitive to the normality of the sample.

Some of the assumptions of linear regression were met for this analysis, while others were not. The regression residuals (with deniers removed) appeared approximately normal upon visual inspection of the residuals, but the skewness statistic of -0.759 and kurtosis of 3.641 were statistically significant as indicated by a Jarque-Bera Normality Test p value of

0.0003 – thus, the prediction residuals were not normally distributed. Ratio of observation refers to assessing the adequacy of the sample size, and one of the popular rules of thumb for this is the sample-to-variable ratio of 20:1, which is met in this study – however, this study did not meet the 5:1 sample-to-item ratio which would have required a sample size of 235 (Research Gaps, n.d.). A Durbin-Watson test was conducted on the full sample and non-denier sample (after removal of the respondents whose belief in self-vulnerability were NA) and no correlation between the residuals was detected ($p = 0.358$ and $p = 0.888$) (Bobbitt, 2020b). Thus, the assumption that the errors were independent was met. F-tests were conducted on the sample with the thought-reform deniers removed to assess the homogeneity of variances assumption, and the ratio of variances was estimated to be 1.58 ($p = 0.065$), indicating the variances were approximately homogenous (Bobbitt, 2020c).

In addition to potential errors associated with the assumptions of normality for the composite literacy scores and normality of the prediction residuals not being met for the regression model estimate of the humility score differential, the point-biserial analysis of respondent humility may have underestimated the positive correlation due to restriction of range. Hatcher notes that a restriction of range – when a criterion variable for the sample does not display all possible values in its range – can result in the sample correlation being misleadingly small compared to the true correlation of the population (2013). Since not every composite literacy score was represented in the sample, the effect size of the correlation between humility and composite literacy scores may have been larger than it appeared due to this restriction of range.

CHAPTER 6

CONCLUSION

This chapter discusses future work in thought-reform literacy research as well as the improvements that can be made to future studies of this kind. The survey data collected and interpreted in this study should be considered foundational rather than definitive – much can be improved in both the methodology and questionnaire itself. Furthermore, the full impact of this research will remain ambiguous until enough follow-up literacy studies have been conducted. Such a critical mass of thought-reform literacy research could allow for the discovery of generalizable insights, such as a persistent positive correlation between belief in self-vulnerability and test scores across geographies, which would have profound implications for mind defense science.

Follow Up Study with Same Dataset

The dataset obtained in this study can be more deeply investigated in future work, as there are hundreds of possible statistics that were not explored to keep the scope of this work manageable. For instance, analyses could determine whether there were any remarkable patterns among the hundreds of pairings between respondent demographics and each of the 47 individual test question responses. Such analyses could potentially answer additional questions about thought-reform literacy, such as "Do older adults tend to be more familiar with Jonestown than younger adults?" or "Do those with higher educational attainment tend to be humbler about their own vulnerability to thought reform?"

Improvements to the Survey Methodology

Many of the potential improvements to this study include addressing the assumptions and limitations mentioned in Chapter 1 to strengthen the survey methodology in future studies. The limitations of the mail survey could be addressed by utilizing a mixed-mode survey design, such as giving the recipients of the initial mailing the option to complete the survey via the internet or over the phone – this may increase response rates by better accommodating individuals with disabilities and giving respondents more freedom for choosing how to interact with the survey. Additionally, although this study used a comprehensive address list and a simple random sample, it likely excluded many adults in group living situations and those who are homeless – a more advanced selection mechanism could be utilized to ensure these adults are not excluded in future thought-reform literacy studies.

A major improvement to the survey methodology that would eliminate a core assumption of this study would be a separate analysis of nonrespondents. This could be achieved through door-to-door interviews with a portion of nonrespondents. Such an analysis might reveal profound statistically significant differences between the respondents and those who refuse the survey. For instance, a possible finding from such an analysis of nonrespondents might include discovering that there is a higher proportion of people who deny the existence of psychological manipulation within the population than what was apparent from the survey respondents alone. Discoveries of this nature would yield significant insights for measuring and interpreting data in future thought-reform literacy studies.

Improvements to the Survey Instrument

To address the delimitations of this study, the TRLQ-SDL and derivative questionnaires will need to be regularly updated for changes to thought-reform literacy standards set by experts as well as any thought-reform facts that change with the passage of time. Aside from this routine maintenance, it is important to appreciate that the TRLQ-SDL as it was used in this study was far from perfect. For instance, findings from the pilot survey results led to Content Area 2 – Harms and Tragedies having one fewer test question than the other content areas – thus, a replacement question will need to be synthesized in future work to balance the questionnaire. Additionally, certain questions had facility values above 0.9 and others had weak discrimination values; these questions should be swapped out for more statistically robust test questions within the same content areas in future iterations of the curriculum. The questionnaire should be incrementally modified and improved until the literacy score distributions are approximately normal, so that the scores can be standardized and interval estimates can be reported in future studies.

The lack of a statistically significant relation between the five demographic variables investigated in this study and thought-reform literacy scores needs to be replicated by various studies of this type before it is known if this finding is generalizable to other populations. Additionally, studies of this type can attempt to repeat the major finding of this study – that there was a positive correlation between respondents who were humble about their vulnerability to thought reform and their composite test score – to determine if this finding is generalizable to other populations or whether it is localized to specific geographies such as South Dakota. Future thought-reform literacy studies can also include alternate or additional demographic variables such as political leanings and religious affiliation. Although asking about these sensitive demographic categories might harm response rates, studies that include

them could yield important findings about any relation between political and religious affiliation and thought-reform knowledge.

Expanding the Literature on Thought-Reform Literacy

The full benefits of thought-reform literacy research will not be realizable until many studies of this kind are conducted in diverse settings, so that the findings can be compared and generalized to people of all backgrounds. This dissertation study represents but one state of the United States – similar follow-up studies in the remaining states and territories are needed before the general nature of thought-reform literacy of Americans is understood. Additionally, thought reform is a global and international phenomenon, so literacy studies of this kind will need to be conducted in other countries before a more comprehensive view of this issue is available to researchers.

As was mentioned in Chapter 2, there are certain professions and occupations – such as medical doctors, attorneys, clergy, and mental health professionals – that would benefit from higher degrees of thought-reform literacy as they are uniquely positioned to defend against the threat. Thus, dedicated thought-reform literacy studies that target these populations would expand the literature by providing more granular insights into the level of awareness and knowledge these key stakeholders have about thought reform. Through consultation with these educated professionals, such studies could play a crucial role in the brainstorming and deployment of defensive controls for mitigating the likelihood and impact of thought-reform abuses throughout society.

Thought-Reform Literacy and Adjacent Research Fields

Future research work is needed to more tightly incorporate insights between thought reform education studies and adjacent research fields, including human trafficking,

counterterrorism, and domestic abuse. For instance, thought-reform literacy curricula could be developed and deployed as psychoeducation tools to help protect vulnerable populations from being disproportionately affected by human trafficking. As mentioned in Chapter 2, the Native American population in South Dakota is disproportionately targeted for human trafficking; thus, preventative thought-reform education should be a priority for this population as well as all stakeholders who have the ability to influence the issue.

A societal phenomenon that has quickly risen to prominence throughout the course of this dissertation project is artificial intelligence (AI). Thought-reform literacy research will need to be reconciled with advancements in artificial intelligence to protect psychological privacy and security. Research directions that will need to be explored include determining the suitability of utilizing AI models such as ChatGPT for educating the public about psychologically manipulative groups and thought reform; preventing the training data of these AI models from being manipulated by malicious actors to give false or misleading information about cults and thought reform; and determining the extent to which these AI models themselves can be subjected to thought reform and whether a form of psychoeducation can be deployed to inoculate these artificial minds against the threat.

Concluding Remarks

This study represents a foundational event in the thought-reform research field – the very first geographically-defined thought-reform literacy study ever conducted. The primary finding of this research was that there was a low to moderate statistically significant positive correlation in the South Dakota adult population between respondents who were humble about their vulnerability to thought reform and their knowledge about thought reform. This study was also the first to demonstrate a lack of correlation between any of the five

demographic variables investigated in this study (age, educational attainment, subjective social status, race and ethnicity, or biological sex) and respondent literacy scores. This dissertation presented a foundational thought-reform literacy curriculum of 47 test questions – titled the Thought-Reform Literacy Questionnaire for South Dakotan Laypeople (TRLQ-SDL) – that can serve as a starting point for other researchers conducting future thought-reform literacy studies.

The lack of research attention the thought reform problem garners in general suggests the importance of increasing the number of disciplines that tackle this issue. Thus, although it is unintuitive that the first major thought-reform literacy study would come from the perspective of cybersecurity and privacy, the problem was hitherto largely ignored by the very disciplines that would be expected to tackle this research, including all the subfields within psychology. This research field is in its infancy and researchers will not have a firm grasp on the current state of thought-reform literacy in the world until dozens of studies like this one are conducted in diverse populations around the world – such an effort can only be born from collaboration across nationalities, as well as establishing a critical mass of researchers who recognize the importance of promoting thought-reform literacy throughout the world. Increasing and researching the level of knowledge people have about thought reform will continue to be a crucial security control for the protection of society and individuals against mental predators and enhancing the psychological security of all human beings.

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APPENDIX A: SURVEY DEMOGRAPHIC QUESTIONS

How many <u>adults</u> live in your household or apartment (including you)?

○	1
○	2
○	3
○	4
○	5
○	6 or more
	If 6 or more, how many: ___

Are you the adult in your household who will have the next birthday?

○	Yes – please continue
○	No – please have the adult in your household with the next birthday complete the remainder of the survey

What is your age in years?

○	18-25
○	26-35
○	36-45
○	46-55
○	56-65
○	66-75
○	76-85
○	86 or older
○	I prefer not to answer

What is your biological sex?

○	Male
○	Female
○	Other
○	I prefer not to answer

Which racial and ethnic categories describe you? Select all that apply to you.

☐	**Alaska Native or Native American**—For example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Nome Eskimo Community
☐	**Asian**—For example, Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese
☐	**Black or African American**—For example, Jamaican, Haitian, Nigerian, Ethiopian, Somalian
☐	**Hispanic, Latino or Spanish Origin**—For example, Mexican or Mexican American, Puerto Rican, Cuban, Salvadoran, Dominican, Columbian
☐	**Middle Eastern or North African**—For example, Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian
☐	**Native Hawaiian or Other Pacific Islander**—For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese
☐	**White**—For example, German, Irish, English, Italian, Polish, French
☐	Some other race, ethnicity, or origin
☐	I prefer not to answer

Which social class group do you identify with? Select one answer.

○	Poor
○	Working Class
○	Middle Class
○	Affluent
○	I prefer not to answer

Which of the following describes your educational background? Select all that apply to

you <u>or just select your highest education level</u>.

☐	Some high school
☐	High school diploma or equivalent
☐	Vocational training
☐	Some college
☐	Associate's degree (e.g., AA, AE, AFA, AS, ASN)

☐	Bachelor's degree (e.g., BA, BBA, BFA, BS)
☐	Some post undergraduate work
☐	Master's degree (e.g., MA, MBA, MFA, MS, MSW)
☐	Specialist degree (e.g., EdS)
☐	Applied or professional doctorate degree (e.g., MD, DDC, DDS, JD, PharmD)
☐	Doctorate degree (e.g., EdD, PhD)
☐	Other
☐	I prefer not to answer

Belief in self-vulnerability to thought reform

Do you believe you could be lured into a psychologically manipulative group or relationship?

○	Yes, it is possible
○	No, it is not possible

APPENDIX B: SURVEY INSTRUMENT QUESTIONS WITH DEFENSE RATIONALE

Ontology Manifestation 1: Remember Factual Knowledge

Recognize Thought-Reform Terminology

The following terms, although different in some ways, all suggest a level of influence that is harmful. Some of these topics will appear in later questions. **Which of these expressions have you heard?**

Yes	No	
◯	◯	Brainwashing
◯	◯	Coercive Control
◯	◯	Gaslighting
◯	◯	Psychological Abuse
◯	◯	Psychological Manipulation
◯	◯	Radicalization
◯	◯	Thought Reform
◯	◯	Undue Influence

What is Being Measured

This series of questions tests whether the respondent recognizes the common terminology in the cultic studies field to denote thought reform and related phenomena.

Knowledge Citation(s)

(Almendros et al., 2011; Cronin et al., 2017; International Cultic Studies Association, 2018; Langone, 2015; Ni, 2017)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Aa. Knowledge of terminology

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

This question serves as a measure of a respondent's ontological awareness of thought-reform terminology. Respondents who recognize more thought-reform phrases are more aware of its existence, suggesting they are better equipped to defend against it since a general awareness about the existence of thought reform is a prerequisite for psychological defense against the threat.

Ontology Manifestation 2: Remember Conceptual Knowledge

Recognize Ontological Principles

True or False: Psychological manipulation often involves taking control of the manipulated person's environment. If psychological manipulation does not exist, mark only the last circle and leave the other options blank.

◯	True
◯	False
◯	Manipulation does not exist

What is Being Measured

This question reveals if the respondent knows about milieu control, a tactic that is core to thought-reform processes.

Correct Answer

"True" response.

Knowledge Citation(s)

(Stein, 2017)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bc. Knowledge of theories, models, and structures

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognize

Defense Rationale

Respondents who do not indicate that the manipulator attempts to take control of their target's environment have an incomplete understanding of how it actually functions. Such respondents have a reduced sense of saliency of the threat compared to those who recognize that thought reform involves milieu control and thus may fail to recognize when these tactics are used.

Ontology Manifestation 3: Understand Factual Knowledge

Infer Which Modes of Thought Reform Are Possible

Which <u>one</u> of the following statements about the forms that psychological manipulation takes is true?

○	Psychological manipulation only occurs by force, where the victim is trapped and knows they are being manipulated.
○	Psychological manipulation only occurs through deception, where the victim does not know they are being manipulated.

○	Psychological manipulation can occur either by force or through deception.
○	Psychological manipulation does not exist; neither form of psychological manipulation occurs.

What is Being Measured

This question measures if the respondent knows that thought reform can be both overt and covert; that is, that it can be either obvious or subtly deceptive.

Correct Answer

Third option, "psychological manipulation can occur either by force or through deception."

Knowledge Citation(s)

(Taylor, 2004)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

Respondents who are only aware of one mode of thought reform will be unlikely to detect thought reform when it takes the other form. Additionally, only appreciating one mode instead of both may lead respondents to underestimate the prevalence of thought reform in the

world. Respondents who deny that psychological manipulation exists deny both modes and are thus especially vulnerable to underestimating the threat.

Summarize How Much Influence is Possible

Consider the extent to which a human being can be manipulated or changed by others.

Which <u>one</u> of the following includes the parts of a person that can be changed by others?

○	Beliefs and behaviors.
○	The above plus thoughts and emotions.
○	The above plus memories and use of language.
○	The above plus identity and personality.

What is Being Measured

This question measures if the respondent knows how vulnerable the human mind is to influence. This is categorized as an ontological question as opposed to a vulnerability and defense question because it poses a philosophical question about the nature of influence, which is an ontological issue.

Correct Answer

Last answer, "the above plus identity and personality."

Knowledge Citation(s)

(Hassan, 2018; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.4 Summarizing

Defense Rationale

Respondents who do not answer correctly have a reduced sense of saliency about the threat of thought reform because they believe some aspect of their mind cannot be manipulated by others. They do not have an accurate internal model for how powerful influence processes can be and are thus more likely to underestimate the extent to which undergoing thought reform can change their mind.

Ontology Manifestation 4: Understand Conceptual Knowledge

Explain How Thought Reform Works

Which <u>one</u> of the following is the <u>most accurate</u> explanation of how psychological manipulation works?

○	The manipulated person is taken through a series of changes without their knowledge or consent.
○	The manipulated person is tortured and physically restrained until they have no choice but to obey their manipulator.
○	Drugs, sex, and other pleasures are used to lure the manipulated person until they become dependent on the manipulator.
○	It is unknown how the manipulation process would work because psychological manipulation is not currently possible.

What is Being Measured

This question reveals if the respondent has an accurate sense of how thought reform is typically carried out.

Correct Answer

First option, "the manipulated person is taken through a series of changes without their knowledge or consent."

Knowledge Citation(s)

(Hassan, 2018; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bc. Knowledge of theories, models, and structures

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.7 Explaining

Defense Rationale

If the respondent either doesn't believe thought-reform processes are known or selects an inaccurate generalization for how the phenomenon works, they are unlikely to be able to identify when those processes are being used on them. Thus, such respondents are more vulnerable to the threat compared to those who answer this question correctly.

Seminal Tragedies and Harms Manifestation 1: Remember Factual Knowledge

Recognize Seminal Tragedies

For each of the following, have you heard of <u>at least part</u> of the topic mentioned?

Yes	No	
○	○	Native American genocide *or* the Boarding School Era.

○	○	MK-ULTRA *or* Central Intelligence Agency (CIA) mind control research.
○	○	Charles Manson *or* the Manson Family murders.
○	○	Symbionese Liberation Army (SLA) *or* the kidnapping of Patricia Hearst.
○	○	Jim Jones, Jonestown *or* The Peoples Temple.
○	○	David Koresh, Waco *or* the Branch Davidians.
○	○	Shoko Asahara, Aum Shinrikyo *or* the sarin gas attack in Tokyo.
○	○	Marshall Applewhite, Bonnie Nettles *or* Heaven's Gate.

What is Being Measured

This set of questions detects familiarity with seminal thought-reform tragedies, with a focus on American history and high-profile international incidents.

Knowledge Citation(s)

(Atack, 2021; Hassan, 2018, 2019; Lalich & Tobias, 2006; Miquelon, 2017; Santos et al., 2019; Singer, 2003; Taylor, 2004)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Respondents who recognize few or no thought-reform tragedies can be expected to have low saliency of the thought-reform threat and are thus more vulnerable to the threat. Awareness of the potentially destructive nature of thought reform and psychologically manipulative groups is a prerequisite for motivating defense against thought reform.

Seminal Tragedies and Harms Manifestation 2: Remember Conceptual Knowledge

Recognize Typical Consequences of Participation in Cults

Are each of the following <u>typical consequences</u> when someone is harmed from participation in a psychologically manipulative group? A "typical consequence" is one that occurs for <u>many or most people</u> who were harmed by these groups, not just a few. Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle.

Yes	No	
○	○	Physical harm such as malnutrition, bodily injury, or sexual abuse.
○	○	Financial harm such as being defrauded of life savings or working without fair pay.
○		Manipulation does not exist.

What is Being Measured

This question measures if the respondent recognizes that physical and financial harm are common types of harms suffered by those who become involved in psychologically manipulative groups.

Correct Answer

All "yes" responses.

Knowledge Citation(s)

(Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bb. Knowledge of principles and generalizations

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Respondents who are not aware that physical or financial harms are common consequences of involvement with cults are underestimating the scope of the harm a thought-reform environment can cause. Thus, they may be less motivated to defend themselves against cults and may be less likely to notice when someone else is suffering inside of a cult.

Seminal Tragedies and Harms Manifestation 3: Understand Factual Knowledge

Summarize Who Becomes a Cult Leader

Which <u>one</u> of the following describes <u>everyone</u> who becomes the leader of a psychologically manipulative group?

○	The leaders are abusive people who have learned how to use psychological manipulation techniques.
○	The leaders are intelligent people who attract large followings with their compelling ideologies.
○	The leaders are so charismatic that they can charm people with little effort.

○	The leaders are ambitious people who develop secret societies based on occult rituals.

What is Being Measured

This question measures whether the respondent knows the type of person who becomes a cult leader.

Correct Answer

First option, "the leaders are abusive people who has learned how to use psychological manipulation techniques."

Knowledge Citation(s)

(Hassan, 2018; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

A. Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.4 Summarizing

Defense Rationale

Respondents who are not aware that the least common denominator for cult leaders is an abusive person with knowledge of how to conduct thought reform do not have an accurate internal model for who is likely to be a cult leader. Thus, these respondents will be less likely to detect dangerous authority figures compared to respondents who are aware that abuse and

thought reform are central to the origin of cults. The distractors are partially true and based on stereotypes, but only the correct answer summarizes all cult leaders.

Prevalence Manifestation 1: Remember Factual Knowledge

Recognize Social Contexts Where Thought Reform Can Occur

Consider the following social situations a person may find themselves in. **For each, select whether it is possible for psychological manipulation to occur within that social situation.** Mark one answer for each row.

Yes	No	
○	○	Business Training Programs
○	○	Families
○	○	Grooming
○	○	Multi-Level Marketing Firms
○	○	Political Movements
○	○	Religious Movements
○	○	Romantic Relationships
○	○	Schools and Universities
○	○	Therapy or Life-Coaching

What is Being Measured

This question is designed to measure which social situations the respondent believes can involve thought reform.

Correct Answer

All "yes" responses.

Knowledge Citation(s)

(Hassan, 2018, 2019; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Since thought reform can occur in any social situation, respondents who indicate all or most of the social situations presented are more likely to appreciate the ubiquity of the thought-reform threat and are thus more likely to be vigilant in a variety of social situations compared to those who underestimate how prevalent thought reform is.

Prevalence Manifestation 2: Remember Conceptual Knowledge

Recognize Prevalence of Thought Reform in Types of Countries

Consider whether psychological manipulation occurs <u>for at least some portion of the following population</u>. **True or False: Psychological manipulation happens within non-American democracies.**

○	True
○	False

What is Being Measured

This question measures whether the respondent recognizes that thought reform is a routine occurrence within non-American democracies in general.

Correct Answer

"True" response.

Knowledge Citation(s)

(Hassan, 2018; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bb. Knowledge of principles and generalizations

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Respondents who do not indicate that psychological manipulation is routine within non-American democracies may discount the threat when traveling abroad or in relation to helping protect family or friends in those countries.

Prevalence Manifestation 3: Understand Factual Knowledge

Infer Whether Human Trafficking Occurs in South Dakota

Human trafficking can be defined as the enslavement of one or more human beings for labor or sex work. **True or False: Human trafficking occurs in South Dakota.**

○	True
○	False

What is Being Measured

This question is designed to reveal if the respondent knows that human trafficking occurs in their state.

Correct Answer

First option, "true."

Knowledge Citation(s)

(Fugleberg, 2018; Native Hope, n.d.; Polaris, n.d.)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

If a respondent doesn't infer that human trafficking occurs in their home geography, they are underestimating the prevalence of thought-reform victimization. This leaves them more vulnerable to being deceived into a human trafficking situation themselves due to their decreased sense of saliency of the phenomenon. Likewise, they are less likely to be able to intervene in human trafficking situations involving others if they do not believe it happens close to their home, which leaves others more vulnerable.

Infer Proportion of Human Beings that are Psychologically Manipulated

How many human beings in the world are currently being psychologically manipulated? There is an estimated 8 billion (8 billion = 8,000 million) people in the world.

○	0 people
○	Thousands of people, but less than a million.
○	Millions of people, but less than a billion.
○	A billion people or more.

What is Being Measured

This question is designed to measure the respondents' perception of what proportion of the world's population is currently affected by thought reform.

Correct Answer

Last option, "a billion people or more."

Knowledge Citation(s)

According to Jon Atack (personal communication, November 12, 2023), when commenting about the ranges to use for the answers to this question, he stated "more than a billion people (perhaps even the majority of humanity) are involved in authoritarian relationships."

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

This question will reveal the respondent's perception of the prevalence of thought-reform victimization, a measure which is related to the saliency of the thought-reform threat. If a respondent thinks thought reform does not occur or is an incredibly uncommon occurrence in the world, there is a decreased chance of them being motivated to take actions to defend themselves or others. The exact number of thought-reform victims is unknown and

estimates would vary widely depending on the social contexts being counted as thought reform.

Vulnerability and Defense Manifestation 1: Remember Factual Knowledge

Recognize Types of Vulnerable People

For each of the following, can the type of person mentioned be lured into a psychologically manipulative group or relationship? Mark one answer for each row.

Yes	No	
○	○	Adults below the age of 65
○	○	Lawyers
○	○	Medical Doctors
○	○	Mental Health Professionals
○	○	Military Personnel

What is Being Measured

This set of questions measures which types of people the respondent believes can fall prey to a PMG or abusive relationship.

Correct Answer

All "yes" responses.

Knowledge Citation(s)

(Atack, 2016; Hassan, 2018; Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Survey respondents who believe that one or more groups of human beings are exempt from vulnerability to cults have an inaccurate internal model for who can be victimized by the threat. These respondents may underestimate how widespread and effective cult recruitment is on professionals or people in certain age groups, indicating they do not appreciate the full saliency of the threat.

Vulnerability and Defense Manifestation 2: Remember Conceptual Knowledge

Recognize Defensive Principles

For each of the following, would the action mentioned help you defend yourself against psychological manipulation? Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle and leave the others blank.

Yes	No	
○	○	Learning more about how psychological manipulation works.
○	○	Defending the privacy of your personal information.
○		Manipulation does not exist.

What is Being Measured

These questions measure if the respondent can recognize some of the most important self-defense controls for guarding against thought reform.

Correct Answers

All "yes" responses.

Knowledge Citation(s)

(Hassan, 2018; Singer, 2003; Stein, 2017)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bb. Knowledge of principles and generalizations

Bloom's Taxonomy Cognitive Dimension

1.0 Remember; 1.1 Recognizing

Defense Rationale

Respondents who do not recognize these self-defensive techniques as being effective against thought reform are unlikely to be adequately defending their minds. They may not be motivated to implement these techniques, either because the respondents do not believe they are effective, because the respondent is not aware that they are protective actions, or because the respondents do not believe in the existence of thought reform.

Vulnerability and Defense Manifestation 3: Understand Factual Knowledge

Infer Whether Terrorist Groups Have Recruited Educated Professionals

True or False: Terrorist groups have recruited educated professionals such as doctors, engineers, lawyers, and professors.

○	True
○	False

What is Being Measured

Can the respondent correctly infer that educated professionals are vulnerable to being recruited by terrorist organizations?

Correct Answer

First option, "true."

Knowledge Citation(s)

(Lifton, 2000)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and elements

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

If a respondent doesn't know that educated professionals can be recruited by terrorist organizations, they are overestimating the psychological security of those educated professionals. Thus, respondents who answer this question incorrectly may be more vulnerable to abuse of authority by influential agents of a mental predator (e.g., more vulnerable to being influenced or abused by lawyers, doctors, or scientists who themselves have been compromised by thought reform).

Infer Status of American Legal Protections Against Thought Reform

Which <u>one</u> of the following statements about psychological manipulation and American law is correct?

○	It is a federal crime to take control of a person's decisions.
○	It is a state crime in some, but not all, of the 50 states, to take control of a person's decisions.
○	It is a state crime in all 50 states to take control of a person's decisions.
○	There are almost no legal protections against taking control of a person's decisions.

What is Being Measured

This question is designed to measure the respondent's perception of legal protections against thought reform in America.

Correct Answer

Last option, "there are almost no legal protections against taking control of a person's decisions."

Knowledge Citation(s)

(Hassan, 2020a)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and events

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

Respondents who believe that the United States of America has passed various laws to protect their mind against thought reform are overestimating the governments' ability and willingness to protect them against the threat. Thus, these respondents may be less motivated to engage in self-defensive actions to compensate for the lack of legal protections in America, indicating a greater susceptibility to thought reform.

Infer Type of Person Most Commonly Recruited by PMGs

Which type of person is <u>most commonly</u> recruited by psychologically manipulative groups? <u>Please only select one answer.</u> Mark the last option if you believe psychological manipulation does not exist.

○	People who are of low intelligence.
○	People who are normal and ordinary.
○	People who are needy and dependent.
○	People who are mentally unstable.
○	Manipulation does not exist.

What is Being Measured

This question reveals which type of person the respondent believes is most likely to become involved with a mind control cult.

Correct Answer

Second option, "people who are normal and ordinary."

Knowledge Citation(s)

(Hassan, 2018)

Bloom's Taxonomy Knowledge Dimension

A. Factual Knowledge; Ab. Knowledge of specific details and events

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.5 Inferring

Defense Rationale

Respondents who do not know that it is normal people who are most commonly victimized by mind control cults may underestimate the likelihood of getting involved with such a group themselves. The distractors tempt the respondent with common misconceptions about the types of people who fall for mind control. Ultimately, if a respondent does not respond correctly, they are likely to be significantly underestimating how easy it would be to end up in a thought-reform environment by viewing the likelihood as being more closely related to personal imperfections than it is in reality.

Vulnerability and Defense Manifestation 4: Understand Conceptual Knowledge

Summarize Who is Vulnerable to Thought Reform

Which <u>one</u> of the following statements accurately summarizes who is vulnerable to psychological manipulation?

○	Only some people are vulnerable to psychological manipulation, while others are immune to it.
○	Everyone is vulnerable to psychological manipulation, but some factors increase vulnerability.
○	Everyone is equally vulnerable to psychological manipulation.
○	No one is vulnerable because psychological manipulation does not exist.

What is Being Measured

This question is designed to reveal if the respondent believes one of the common misconceptions about human vulnerability to thought reform.

Correct Answer

Second option, "everyone is vulnerable to psychological manipulation, but some factors increase vulnerability."

Knowledge Citation(s)

(Singer, 2003)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Ab. Knowledge of principles and generalizations

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.4 Summarizing

Defense Rationale

If the respondent does not accurately summarize that all human beings are vulnerable to thought reform, they are underestimating the probability of normal people being victimized by thought reform. A lack of understanding of the universal vulnerability to thought reform would suggest the respondent themselves has a heightened vulnerability to the threat and may be less motivated to help or have compassion for other human beings who are affected by thought reform.

Explain Defending Against Thought Reform

Which <u>one</u> of the following statements about defense against psychological manipulation is true?

○	Psychological manipulation <u>cannot</u> be defended against because it is an all-powerful tool for control.
○	Psychological manipulation <u>cannot</u> be defended against because it does not exist.
○	Psychological manipulation <u>can</u> be defended against because it is not possible to completely control a person's reality.
○	Psychological manipulation <u>can</u> be defended against because it is usually a weak method of control.

What is Being Measured

This question both determines whether the respondent believes thought reform can be defended against and if they understand the correct reason why it can be defended against.

Correct Answer

Third option, "psychological manipulation <u>can</u> be defended against because it is not possible to completely control a person's reality."

Knowledge Citation(s)

(Lifton, 2019)

Bloom's Taxonomy Knowledge Dimension

B. Conceptual Knowledge; Bb. Knowledge of principles and generalizations

Bloom's Taxonomy Cognitive Dimension

2.0 Understand; 2.7 Explaining

Defense Rationale

A person who doesn't believe in thought reform or believes they are defenseless against thought reform is unlikely to be motivated to take actionable steps to defend themselves or others against the threat. If a respondent believes thought reform can be defended against because it is an ineffective method for controlling a person, they are not able to accurately explain why thought reform can be defended against and may have a reduced saliency of the threat compared to someone who knows the actual reason why thought reform can be defended against.

APPENDIX C: MAIL SURVEY QUESTIONNAIRE

South Dakota Psychological Manipulation Survey

A statewide survey of people's knowledge about psychological manipulation and related topics

To be completed by the adult (age 18 or over) in your household who will have the next birthday.

Dustin Rozario Steinhagen

PhD Candidate in Cyber Defense

Dakota State University

TO BEGIN THE SURVEY,
FLIP PAGE ↺

START HERE

1. How many <u>adults</u> live in your household or apartment (including you)?

O	1
O	2
O	3
O	4
O	5
O	6 or more
	If 6 or more, how many: _____

2. Are you the adult in your household who will have the next birthday?

O	Yes – please continue.
O	No – please have the adult in your household with the next birthday complete the remainder of the survey.

FAMILIARITY SECTION

Questions 3 - 18 ask about your <u>familiarity</u> with certain topics. If you have heard of each topic mentioned, mark "Yes". Otherwise, mark "No."

3. – 10. The following terms, although different in some ways, all suggest a level of influence that is harmful. **Which of these expressions have you heard?**

	Yes	No	
3.	O	O	Brainwashing
4.	O	O	Coercive Control
5.	O	O	Gaslighting
6.	O	O	Psychological Abuse
7.	O	O	Psychological Manipulation
8.	O	O	Radicalization
9.	O	O	Thought Reform
10.	O	O	Undue Influence

11. – 18. For each of the following, have you heard of <u>at least part</u> of the topic mentioned?

	Yes	No	
11.	O	O	Native American genocide *or* the Boarding School Era.
12.	O	O	MK-ULTRA *or* Central Intelligence Agency (CIA) mind control research.
13.	O	O	Charles Manson *or* the Manson Family murders.
14.	O	O	Symbionese Liberation Army (SLA) *or* the kidnapping of Patricia Hearst.
15.	O	O	Jim Jones, Jonestown *or* The Peoples Temple.
16.	O	O	David Koresh, Waco *or* the Branch Davidians.
17.	O	O	Shoko Asahara, Aum Shinrikyo *or* the sarin gas attack in Tokyo.
18.	O	O	Marshall Applewhite, Bonnie Nettles *or* Heaven's Gate.

KNOWLEDGE SECTION

For this section, do not look up the correct answers – answer with your current knowledge only. <u>Please mark the single answer you think is correct for each question.</u> It is better to guess than to leave a question blank. This survey booklet is not linked to your identity in any way.

Many questions will ask about psychological manipulation. **Psychological manipulation can be defined as taking control of someone else's decisions.**

19. True or False: Psychological manipulation often involves taking control of the manipulated person's environment. If psychological manipulation does not exist, mark only the last circle and leave the other options blank.

O	True
O	False
O	Manipulation does not exist.

GO TO PAGE 3 →

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20. Which one of the following statements about the forms that psychological manipulation takes is true?

O	Psychological manipulation only occurs by force, where the victim is trapped and knows they are being manipulated.
O	Psychological manipulation only occurs through deception, where the victim does not know they are being manipulated.
O	Psychological manipulation can occur either by force or through deception.
O	Psychological manipulation does not exist; neither form of psychological manipulation occurs.

21. Consider the extent to which a human being can be manipulated or changed by others. **Which one of the following includes the parts of a person that can be changed by others?**

O	Beliefs and behaviors.
O	The above plus thoughts and emotions.
O	The above plus memories and use of language.
O	The above plus identity and personality.

22. Which one of the following is the most accurate explanation of how psychological manipulation works?

O	The manipulated person is taken through a series of changes without their knowledge or consent.
O	The manipulated person is tortured and physically restrained until they have no choice but to obey their manipulator.
O	Drugs, sex, and other pleasures are used to lure the manipulated person until they become dependent on the manipulator.
O	It is unknown how the manipulation process would work because psychological manipulation is not currently possible.

Several questions ask about psychologically manipulative groups. **A psychologically manipulative group is a group in which psychological manipulation is used on its members.**

23. – 24. Are each of the following typical consequences when someone is harmed from participation in a psychologically manipulative group?
A "typical consequence" is one that occurs for many or most people who were harmed by these groups, not just a few. Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle.

	Yes	No	
23.	O	O	Physical harm such as malnutrition, bodily injury, or sexual abuse.
24.	O	O	Financial harm such as being defrauded of life savings or working without fair pay.
	O		Manipulation does not exist.

25. Which one of the following describes everyone who becomes the leader of a psychologically manipulative group?

O	The leaders are abusive people who have learned how to use psychological manipulation techniques.
O	The leaders are intelligent people who attract large followings with their compelling ideologies.
O	The leaders are so charismatic that they can charm people with little effort.
O	The leaders are ambitious people who develop secret societies based on occult rituals.

26 – 34. Consider the following social situations a person may find themselves in. **For each, select whether it is possible for psychological manipulation to occur within that social situation.** Mark one answer for each row.

	Yes	No	
26.	O	O	Business Training Programs
27.	O	O	Families
28.	O	O	Grooming
29.	O	O	Multi-Level Marketing Firms
30.	O	O	Political Movements
31.	O	O	Religious Movements
32.	O	O	Romantic Relationships
33.	O	O	Schools and Universities
34.	O	O	Therapy and Life-Coaching

FLIP PAGE ↻

35. Human trafficking can be defined as the enslavement of one or more human beings for labor or sex work. **True or False: Human trafficking occurs in South Dakota.**

O	True
O	False

36. Consider whether psychological manipulation occurs <u>for at least some portion of the following population</u>. **True or False: Psychological manipulation happens within non-American democracies.**

O	True
O	False

37. How many human beings in the world are currently being psychologically manipulated? There are an estimated 8 billion (8 billion = 8,000 million) people in the world.

O	0 people.
O	Thousands of people, but less than a million.
O	Millions of people, but less than a billion.
O	A billion people or more.

Recall that **a psychologically manipulative group is a group in which psychological manipulation is used on its members.**

38 - 42. For each of the following, can the type of person mentioned be lured into a psychologically manipulative group or relationship? Mark one answer for each row.

	Yes	No	
38.	O	O	Adults below the age of 65
39.	O	O	Lawyers
40.	O	O	Medical Doctors
41.	O	O	Mental Health Professionals
42.	O	O	Military Personnel

43. True or False: Terrorist groups have recruited educated professionals such as doctors, engineers, lawyers, and professors.

O	True
O	False

44 - 45. For each of the following, would the action mentioned help you defend yourself against psychological manipulation? Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle and leave the others circles blank.

	Yes	No	
44.	O	O	Learning more about how psychological manipulation works.
45.	O	O	Defending the privacy of your personal information.
	O		Manipulation does not exist.

46. Which <u>one</u> of the following statements about psychological manipulation and American law is correct?

O	It is a federal crime to take control of a person's decisions.
O	It is a state crime in some, but not all, of the 50 states, to take control of a person's decisions.
O	It is a state crime in all 50 states to take control of a person's decisions.
O	There are almost no legal protections against taking control of a person's decisions.

47. Which type of person is <u>most commonly</u> recruited by psychologically manipulative groups? <u>Please only select one answer.</u> Mark the last option if psychological manipulation does not exist.

O	People who are of low intelligence.
O	People who are normal and ordinary.
O	People who are needy and dependent.
O	People who are mentally unstable.
O	Manipulation does not exist.

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48. Which <u>one</u> of the following statements accurately summarizes who is vulnerable to psychological manipulation?

O	Only some people are vulnerable to psychological manipulation, while others are immune to it.
O	Everyone is vulnerable to psychological manipulation, but some factors increase vulnerability.
O	Everyone is equally vulnerable to psychological manipulation.
O	No one is vulnerable because psychological manipulation does not exist.

49. Which <u>one</u> of the following statements about defense against psychological manipulation is true?

O	Psychological manipulation <u>cannot</u> be defended against because it is an all-powerful tool for control.
O	Psychological manipulation <u>cannot</u> be defended against because it does not exist.
O	Psychological manipulation <u>can</u> be defended against because it is not possible to completely control a person's reality.
O	Psychological manipulation <u>can</u> be defended against because it is usually a weak method of control.

ABOUT YOU

50. What is your age in years?

O	18-25
O	26-35
O	36-45
O	46-55
O	56-65
O	66-75
O	76-85
O	86 or older
O	I prefer not to answer

51. What is your biological sex?

O	Male
O	Female
O	Other
O	I prefer not to answer

52. Which racial and ethnic categories describe you?
Select all that apply to you.

☐	**Alaska Native or Native American**—For example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Nome Eskimo Community.
☐	**Asian**—For example, Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese.
☐	**Black or African American**—For example, Jamaican, Haitian, Nigerian, Ethiopian, Somalian.
☐	**Hispanic, Latino or Spanish Origin**—For example, Mexican or Mexican American, Puerto Rican, Cuban, Salvadoran, Dominican, Columbian.
☐	**Middle Eastern or North African**—For example, Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian.
☐	**Native Hawaiian or Other Pacific Islander**—For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese.
☐	**White**—For example, German, Irish, English, Italian, Polish, French.
☐	Some other race, ethnicity, or origin.
☐	I prefer not to answer.

53. Which social class group do you identify with?
Select one answer.

O	Poor
O	Working Class
O	Middle Class
O	Affluent
O	I prefer not to answer

FLIP PAGE ↺

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54. Which of the following describes your educational background? Select all that apply to you <u>or just select your highest education level.</u>

☐	Some high school
☐	High school diploma or equivalent
☐	Vocational training
☐	Some college
☐	Associate degree (e.g., AA, AE, AFA, AS, ASN)
☐	Bachelor's degree (e.g., BA, BBA, BFA, BS)
☐	Some post undergraduate work
☐	Master's degree (e.g., MA, MBA, MFA, MS, MSW)
☐	Specialist degree (e.g., EdS)
☐	Applied or professional doctorate degree (e.g., MD, DDC, DDS, JD, PharmD)
☐	Doctorate degree (e.g., EdD, PhD)
☐	Other
☐	I prefer not to answer

55. Do you believe you could be lured into a psychologically manipulative group or relationship?

◯	Yes, it is possible.
◯	No, it is not possible.

THANK YOU!!

Please return your survey (<u>just the blue sheets</u>) in the enclosed envelope or use the following address:

Dustin Rozario Steinhagen

Please also <u>drop the included green postcard with the ID number in the mail</u> so I know to take your address off my contact list.

If you have additional thoughts about any of the above topics or the survey itself, please share them here:

I greatly appreciate your help with this survey of South Dakota households.

If you have questions about this survey, please email **Dustin Rozario Steinhagen** at

APPENDIX D: MAIL SURVEY ENVELOPE
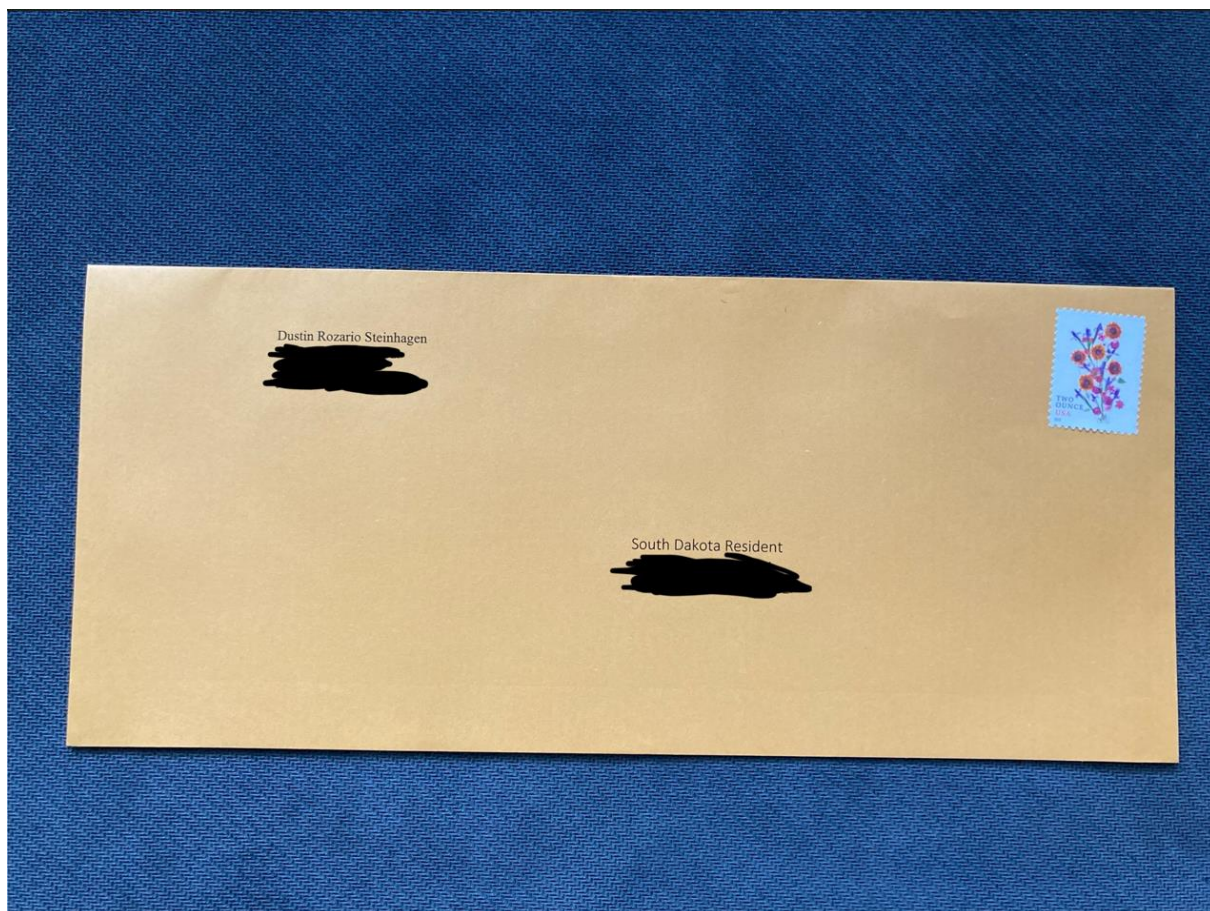
APPENDIX E: RETURN ENVELOPE
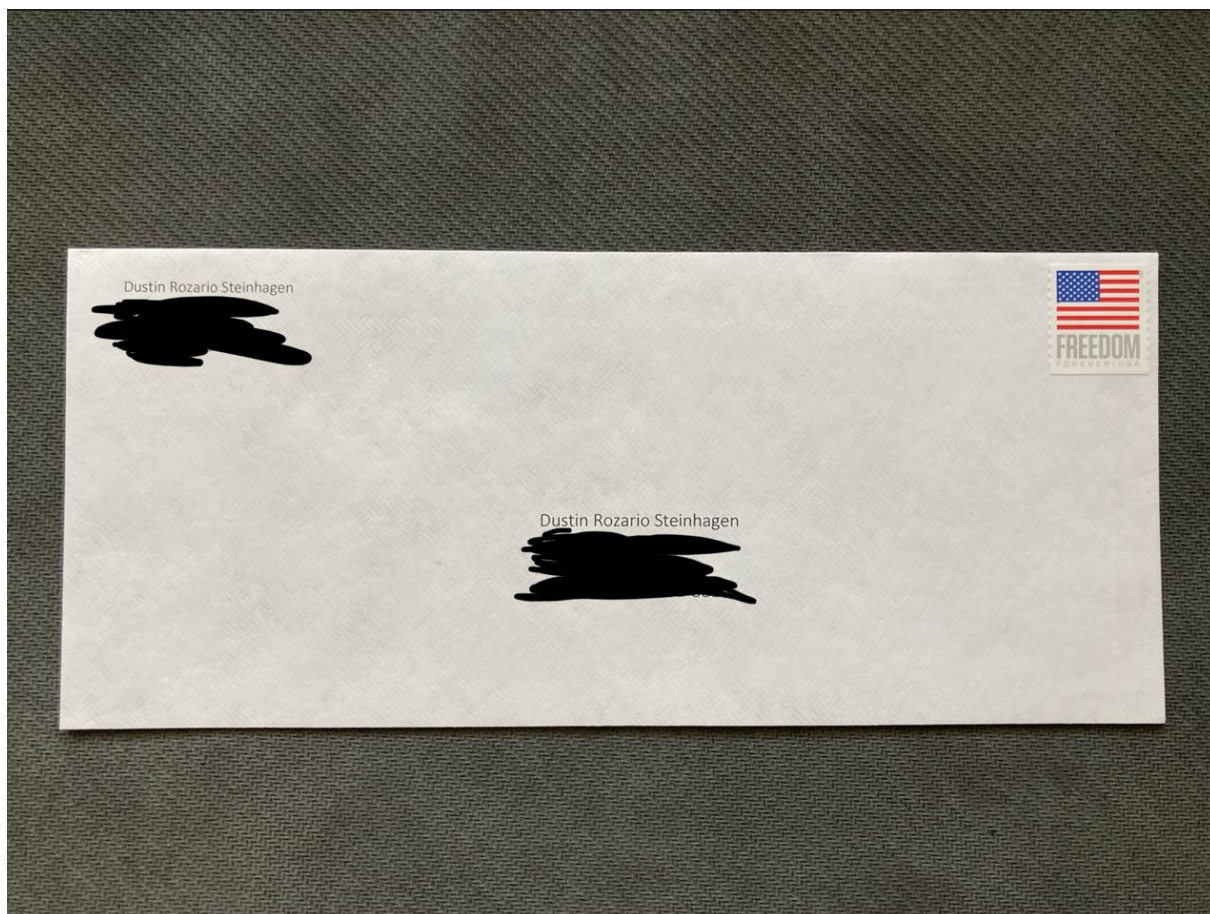
APPENDIX F: ANONYMOUS POSTCARD

Dustin,

I am sending this postcard at the same time that I am putting my completed survey in the mail.

Since the survey does not have an ID number, this postcard will tell you that you don't need to contact me again.

ID: 1

Dustin Rozario Steinhagen
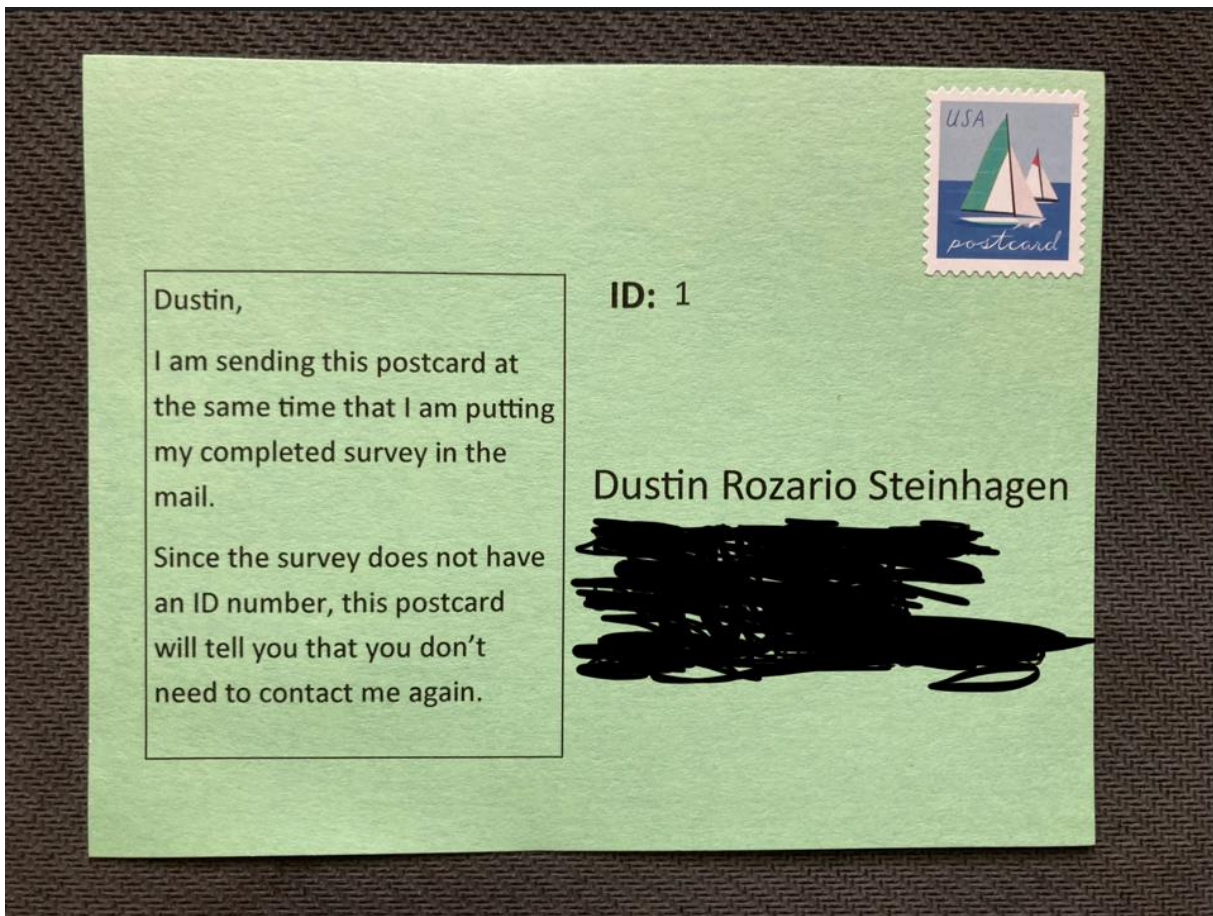
APPENDIX G: COVER LETTER – PHASE 1

May 3, 2024

Dear South Dakota Resident,

My name is Dustin Rozario Steinhagen, and I am a PhD candidate in Cyber Defense at Dakota State University in Madison, South Dakota. Human interaction is the most vulnerable part of computer networks – most cyber-attacks occur because someone was psychologically or emotionally manipulated by another person. Security experts are not only responsible for securing computers and online spaces, but also for arming users with proper knowledge and awareness about these threats. Thus, security experts can learn a lot about how to better defend against cyber-attacks by studying how much people know about manipulation in general.

There is little data on how much the public knows about malicious influence, also known as psychological manipulation. By taking the included survey, you can help researchers understand how much people know about human vulnerability to influence. This information can help us to better protect ourselves and those we love from scams, fraud, and unhealthy groups and relationships.

To make sure I hear from all types of people who live in South Dakota, please give the enclosed survey to the adult (age 18 or over) in your household who will have the **next birthday.** Please return the completed survey in the included stamped envelope. Please send the included green postcard when you send your survey so that I can remove your address from my contact list. If you have any questions or feedback about this survey, please contact me by email at ███████████████████████████

By taking a few moments to complete the survey, you will be adding to research that will increase the protection of families, communities, and even national security.
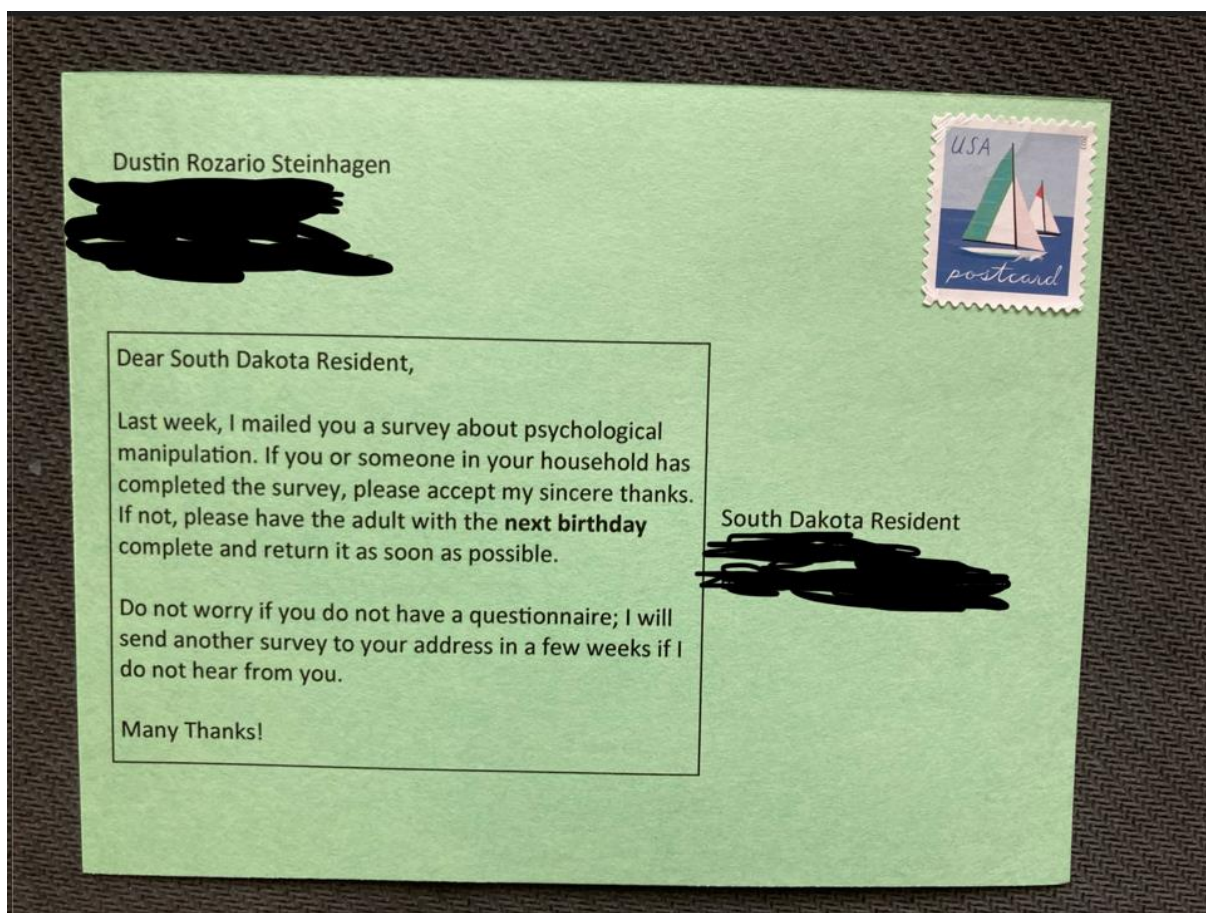
Thank you for your help,

Dustin Rozario Steinhagen

Dustin Rozario Steinhagen
PhD Candidate in Cyber Defense
Dakota State University

P. S. I have enclosed $2 in cash as thanks for completing the survey!

APPENDIX H: FOLLOW-UP POSTCARD – PHASE 2

Dustin Rozario Steinhagen

USA
postcard

Dear South Dakota Resident,

Last week, I mailed you a survey about psychological manipulation. If you or someone in your household has completed the survey, please accept my sincere thanks. If not, please have the adult with the **next birthday** complete and return it as soon as possible.

Do not worry if you do not have a questionnaire; I will send another survey to your address in a few weeks if I do not hear from you.

Many Thanks!

South Dakota Resident

APPENDIX I: FOLLOW-UP LETTER – PHASE 3

May 21, 2024

Dear South Dakota Resident,

About three weeks ago, I sent you a survey request. To the best of my knowledge, I have not yet received your responses. By way of reminder, I am a PhD candidate in Cyber Defense at Dakota State University in Madison, South Dakota. Human interaction is the most vulnerable part of computer networks – most cyber-attacks occur because someone was psychologically or emotionally manipulated by another person. My hope is that this study will help protect the public against these attacks.

Your responses are important because this study could have beneficial applications for the research community, such as the following:
- Data that could help target education to prevent citizens from falling victim to cybercrime and other types of malicious influence
- Research findings that could help protect communities and families against scams, fraud, and destructive groups
- Increasing our understanding of how people compare to each other in your state on knowledge about these issues

I am writing again because of the importance that your household's responses have for helping to get accurate results. Thus, I hope the adult (**age 18 or over**) in your household who will have the **next birthday** will fill out the survey soon.

You can help by completing the questionnaire and returning it in the stamped envelope provided. Please send the green postcard in the mail alongside your survey so that I know to take your address off the contact list. Your responses are voluntary and are anonymous. I do not know your name and you are not on a mailing list, and your answers will never be associated with your address in any way. If you have questions about this survey please contact me by email at ███████████████████████████

The $2 is yours to keep whether you choose to complete the survey or not. Thank you so much for your help with this important study.

Dustin Rozario Steinhagen

Dustin Rozario Steinhagen
PhD Candidate in Cyber Defense
Dakota State University

APPENDIX J: FOLLOW-UP LETTER – PHASE 4

June 3, 2024

Dear South Dakota Resident,

In recent weeks, I have asked you, as part of a random group of South Dakota residents, to take part in a survey about malicious influence for my PhD dissertation in Cyber Defense. As we know, humans are the most vulnerable part of computer networks.

Scams and other malicious acts of influence are frequently in the news. These issues can affect anyone, and learning what people know about them is a first line of defense. I hope that this study will help protect the public against psychological manipulation.

You can help by filling out the survey I mailed to your address last week and returning it in the provided stamped envelope.

This is the last contact I will be sending you about this survey, as I will be finishing the results soon. If you have any questions about this survey, you can contact me by email at ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

Respectfully,

Dustin Rozario Steinhagen
PhD Candidate in Cyber Defense
Dakota State University

APPENDIX K: INFORMED CONSENT FORM

Informed Consent Statement

Who I Am:

My name is Dustin Rozario Steinhagen and I am a PhD candidate at Dakota State University, studying Cyber Defense. Cyber experts defend people from many types of harms in our internet-connected world. Part of our job is to protect people against scams and other forms of malicious influence that can happen online or offline.

Purpose of this Research:

The goal of this survey is to learn what South Dakotans know about psychological manipulation. Studying and increasing awareness about manipulation helps protect people from falling for scams and can even prevent people from becoming involved with unhealthy groups and relationships.

Your Involvement:

You will be asked about psychological manipulation and related topics, as well as about your background (e.g., age, sex, etc...). If you choose to answer, you can mark your answers in the survey booklet and return the survey in the envelope provided. This survey takes about 15 to 20 minutes to complete.

Risks and Discomforts:

It is unlikely there will be any risks or discomforts from answering this survey. You are free to skip any questions you prefer not to answer. You have the right to stop answering the survey questions for any reason.

Benefits for You:

The survey mailing includes $2 in cash for you to keep, whether you answer the survey or not. You may find taking the survey or volunteering your time enjoyable.

Confidentiality:

This is an anonymous survey. All households were randomly selected from within your state. Your address will only be used for contacting you about this survey and will not be shared with anyone. A copy of the anonymous data will be kept for at least 3 years and may be used in future research or shared with other researchers, without further informed consent from you.

Taking the Survey is Your Choice:

Taking this survey is your choice, and you will not be penalized in any way for refusing the survey. You may choose to stop the survey at any time. However, once we receive your survey, we cannot remove your answers because the responses are anonymous.

Questions:

If you have questions or concerns about your rights as a human subject and this research please contact Dakota State University IRB at irb@dsu.edu.

Sign of Your Consent:

By completing and mailing in your survey, it will be taken as a sign of your consent to be a part of this survey.

APPENDIX L: SURVEY FIELD TEST FEEDBACK FORM

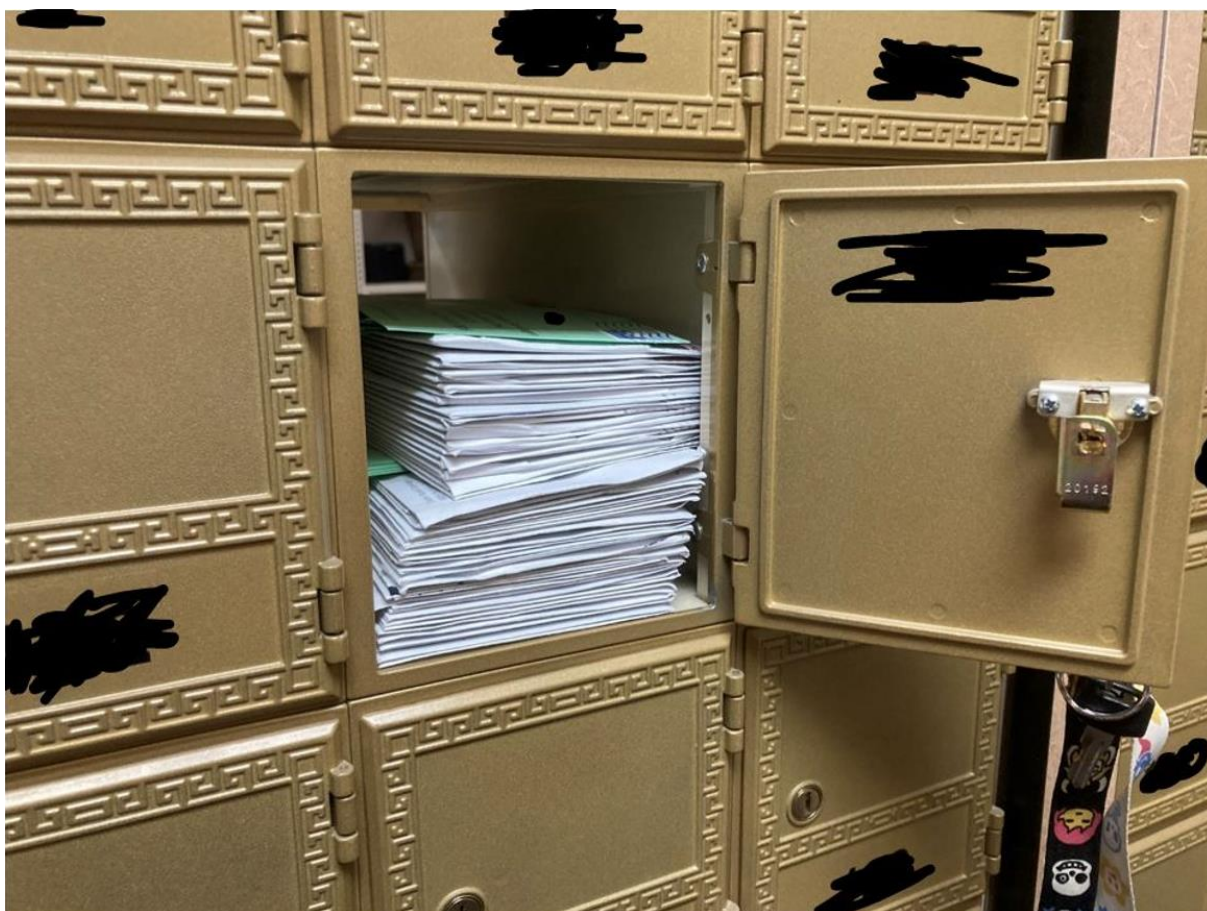**Feedback Form for Brainwashing Literacy Survey Booklet**

Please complete the survey as if you were a respondent in the study. Then answer the questions below.

Please note the following:

- Your responses **will not** be included in my results or data analysis. This is a field test of the survey booklet designed to catch issues with the questions and survey instructions.
- Your feedback will be anonymously pooled and vaguely summarized with others' feedback and will not be tied to you.
- Note: As I am just seeking preliminary feedback, **please ignore the "next birthday" requirement (Question 2) in the survey booklet** – answer the survey that was addressed to you and/or feel free to have additional people in your household fill out the survey.

1. Approximately how long did it take you to fill out the survey? _____

2. Were the survey instructions clear? If no, how could they be improved?

3. Did you know what kinds of answers were expected for each question? If no, which questions were confusing?

4. Were all questions clear? If no, which questions did you have problems understanding?

5. Do you have any other feedback related to other aspects of the survey materials you reviewed?

APPENDIX M: UPS PERSONAL MAILBOX

APPENDIX N: RANDOM NUMBER GENERATOR
PYTHON SCRIPT

```
import random

h_units = 351258 #The max range of the address list, this needs to be 1 MORE than actual max range
n_pulled = 500 #Number of records to put in the output list.txt

numbers = random.sample(range(2, h_units), n_pulled) # 2 instead of 1 because first row is header in address list

with open('list.txt', 'w') as f: #List the sampled address indices in output file list.txt
        for number in numbers:
                f.write(str(number) + '\n')
```

(END)

APPENDIX O: QUESTIONS REMOVED AFTER PILOT SURVEY

Removals from Ontology Manifestation 1

The following terms, although different in some ways, all suggest a level of influence that is harmful. Some of these topics will appear in later questions. **Which of these expressions have you heard?**

Yes	No	
○	○	Coercion
○	○	Mind Control

Removals from Ontology Manifestation 2

Are each of the following techniques commonly used by manipulators? Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle and leave the other circles blank.

Yes	No	
○	○	The manipulator isolates the manipulated person from their family and friends.
○	○	The manipulator uses fear to keep the manipulated person obedient and vulnerable.
○		Manipulation does not exist.

Removals from Ontology Manifestation 3

Which <u>one</u> of the following statements about the existence of psychological manipulation is true?

○	Psychological manipulation is a myth and does not exist.

	Psychological manipulation is a technique that is practiced and works in the real world.
○	

Removals from Ontology Manifestation 4

Consider how psychological manipulation compares to education and advertising/marketing. **Which <u>one</u> of the following statements is true?**

○	Education is a form of psychological manipulation.
○	Advertising/Marketing is a form of psychological manipulation.
○	Education and advertising are separate types of influence compared to psychological manipulation.

Removals from Seminal Tragedies and Harms Manifestation 1

For each of the following, have you heard of <u>at least part</u> of the topic mentioned?

Yes	No	
○	○	Adolf Hitler, the Nazi movement *or* the Holocaust.
○	○	Osama bin Laden, 9/11, Al-Qaeda *or* the terrorist attack on September 11, 2001.

Removals from Seminal Tragedies and Harms Manifestation 2

Are each of the following <u>typical consequences</u> when someone is harmed from participation in a psychologically manipulative group? A "typical consequence" is one that occurs for <u>many or most people</u> who were harmed by these groups, not just a few. Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle.

Yes	No	
○	○	Mental harm such as trauma, depression, or anxiety.
	○	Manipulation does not exist.

Removals from Seminal Tragedies and Harms Manifestation 3

True or False: The impacts of being psychologically manipulated are always negative. Only mark the last option if you believe psychological manipulation does not exist.

○	True
○	False
○	Manipulation does not exist.

True or False: Some of the world's children are currently being harmed in one or more psychologically manipulative environments.

○	True
○	False

Removals from Seminal Tragedies and Harms Manifestation 4

Consider dangerous groups that commit acts of violence such as mass killings, mass murder-suicides, and terrorist attacks. **Which <u>one</u> of the following is the <u>most common</u> explanation for why people participate in such groups?**

○	People who participate have personality disorders or mental illnesses.
○	People who participate actively seek out the group for personal reasons.
○	People who participate were not aware that the group was abusive before joining it.
○	People who participate are weak-willed, gullible, or easily led.

Which <u>one</u> of the following is the <u>most common reason</u> why people do not simply leave a group that is abusing them?

○	People stay because they enjoy being abused and need someone to control their lives.

○	People stay because the group and its leader have a high degree of control over them, but this control is not complete.
○	People stay because the group and its leader use hypnosis on them.
○	People stay because they are completely under the control of the group and its leader.

Removals from Prevalence Manifestation 1

Consider the following social situations a person may find themselves in. **For each, select whether it is possible for psychological manipulation to occur within that social situation.** Mark one answer for each row.

Yes	No	
○	○	Internet Communities

Removals from Prevalence Manifestation 2

Consider whether psychological manipulation occurs within certain countries <u>for at least some portion of the population</u>. **For each of the following, select whether the statement is true or false.** Mark one answer for each row.

True	False	
○	○	Psychological manipulation happens in the United States of America.
○	○	Psychological manipulation happens within totalitarian regimes.

Removals from Prevalence Manifestation 3

How many psychologically manipulative groups <u>and relationships</u> currently exist in the United States?

○	0
○	Hundreds, but less than a thousand

○	Thousands, but less than a million
○	A million or more

Removals from Prevalence Manifestation 4

Consider the use of psychological manipulation methods by current political groups in America. **Which political groups use psychological manipulation?**

○	Some right-wing groups and some left-wing groups.
○	Some of the right-wing groups but none of the left-wing groups.
○	Some of the left-wing groups but none of the right-wing groups.
○	None of the right-wing groups and none of the left-wing groups.

A small psychologically manipulative group can be defined as one that has less than 20 people, and a large one has more than 20 people. **In America, how do small and large psychologically manipulative groups (PMGs) compare?**

○	Small PMGs are <u>more</u> common than large PMGs.
○	Small PMGs are <u>less</u> common than large PMGs.
○	Small PMGs and large PMGs are equally common.
○	There are no PMGs in America to compare.

Removals from Vulnerability and Defense Manifestation 1

For each of the following, can the type of person mentioned be lured into a psychologically manipulative group or relationship? Mark one answer for each row.

Yes	No	
○	○	Children under 13 years old
○	○	Teenagers
○	○	Adults over the age of 65

○	○	Politicians
○	○	University and College Professors

Removals from Vulnerability and Defense Manifestation 2

For each of the following, would the action mentioned help you defend yourself against psychological manipulation? Mark one answer for each row. If psychological manipulation does not exist, mark only the last circle and leave the others blank.

Yes	No	
○	○	Being humble and accepting you are vulnerable to psychological manipulation.
	○	Manipulation does not exist.