

Political Ideology and Black-and-White Thinking

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Author Note

I have no conflicts of interest to disclose.

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Date of Dissertation Defense: November 30, 2020.

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Abstract

The political ideology of the American people has become increasingly polarized over the last decade; this trend corresponds with increasingly negative views of people with different values. Black-and-white thinking is a propensity to think of things in extremes—thinking something as fully positive or negative and not recognizing almost everything has elements of both. This study explored the history and current state of political ideology in the United States and black-and-white thinking. The aim of the study was to see if political views were related to thinking styles, specifically if an individual's level of black-and-white thinking could predict their political ideology. Online surveys were completed by 183 adults from the United States. Political ideology was conceptualized as a scale with very liberal on one side and very conservative on the other, along with concepts of social conservatism and economic conservatism. Black-and-white was measured using a scale measuring overall dichotomous thinking with subscales of dichotomous belief, preference for dichotomy, and profit-and-loss thinking. Findings suggest the more conservative someone is, the more likely they were to have higher levels of black-and-white thinking. More liberal individuals had lower levels of black-and-white thinking. Black-and-white thinking could predict conservatism, with it being a stronger predictor of social conservatism than it was for economic conservatism. The implications of this study are that thinking styles and political ideologies are interconnected, and understanding these connections can ideally improve productive conversations in and outside of the therapy office.

Chapter 1

We are inundated with breaking news stories, social media tweets, or other political events that grab the headlines (Chatterjee, 2019; Vernon, 2017). There is an obvious political divide: One side can interpret an event as an outrage, a scandal, something most terrible, and the other half writes it off, ignores it, or claims it to be a fabrication. Is it that the other side is blind, befuddled, bamboozled, or brain dead? Does their cognitive capacity dim by the day? Are the Left and the Right so different that they cannot even agree on the simplest of sentiments?

Although political affiliation in the United States is often regarded as a categorical construct (i.e., Left and Right, Democrat and Republican, liberal and conservative), the ideological underpinning of politics appears to fall along a continuous spectrum (Kiley, 2017; Pew Research Center, 2016). However, the tendency for societies to reduce these philosophies into dichotomous categories is quite common and has been becoming more extreme (Pew Research Center, 2016). This is not just a perception of a growing political divide; this divide is actually happening. According to the Pew Research Center (2016), the partisan divide between Democrats and Republicans had been widening for over 20 years, but increasingly so in the last 10 (Kiley, 2017). In 1994 and 2004, 49% of those surveyed had an equal number of liberal and conservative stances; however, that shrank to 38% in 2015 and was at 32% in 2017 (Kiley, 2017; Pew Research Center, 2016). In the United States, the political middle has shrunk; more people are holding consistently liberal or consistently conservative views, and there is very little overlap on issues between Democrats and Republicans.

Literature Review

Modern Political Views

There is no single agreed upon definition on what it means to be liberal or conservative in the United States today, and there is much variation of opinions within groups; however, there are some similar themes that can be highlighted (Ball & Minogue, 2020; McCullough, 2017; Regnery, 2019; *Student News Daily* Editors, 2010). Regnery (2019) wrote modern conservatism is based on four pillars: (a) liberty and freedom, (b) tradition and order, (c) the rule of law, and (d) a belief in God. The ideals of liberty and freedom are often seen in areas of property rights, gun ownership, free market competitive capitalism, and a dislike of government regulations (Kirk, 2020; Regnery, 2019; *Student News Daily* Editors, 2010). Tradition and order are about conserving traditional values and ways of life; this can sometimes lead to fear or resistance to change and supporting the status quo and *traditional family values* (Ball & Minogue, 2020; McCullough, 2017; Regnery, 2019; *Student News Daily* Editors, 2010). The rule of law pillar often manifests in values that support the death penalty, punishment style prisons, stricter immigration laws and enforcement, and sometimes military action (Kirk, 2020; Regnery, 2019; *Student News Daily* Editors, 2010). Finally, a belief in God, which in the United States mainly refers to a Christian God, has a lot of policy and value implications (Kirk, 2020; Regnery, 2019). Some clear examples of this are opposition to abortion and antichoice legislation, as well as an opposition to gay marriage and LGBTQ protections (Kirk, 2020; McCullough, 2017; Regnery, 2019, *Student News Daily* Editors, 2010).

Modern liberals in the United States have many of the same values as conservatives, such as freedom, individualism, and justice; however, they manifest in

different ways (McCullough, 2017). Liberals believe in the importance of social justice, protecting marginalized communities, equity in opportunities, equality in outcomes, fighting climate change, and economic fairness, to name a few (Democratic National Convention, 2016; McCullough, 2017).

Political Difference History

Political differences are not a new phenomenon. In fact, they are something that has been recorded since the time of ancient Athens and Sparta (Hibbing et al., 2014). Athens had an assembly, was home to countless prominent philosophers, and was the birthplace of democracy and Western civilization, whereas Sparta had a monarchy and focused on military might (Babb, 2018; Hibbing et al., 2014; Thomopoulos, 2012). Similar differences not only showed up between ancient city states but also within them.

In the Roman Republic, approximately 100 BC, the senate was divided between Optimates and Populares; the Optimate's tendency was to safeguard traditional values and keep power in the hands of the wealthy, while the Populares wanted to subsidize grain for the needy, put limitations on slavery, and expand rights (Babb, 2018; Coleman, 2005). These ancient differences seem to mirror the modern liberal/conservative divide that can be seen in the United States and other countries around the world (Hibbing et al., 2014).

Even though those are just two examples that illustrate a separation in political ideology dating back thousands of years, it leads one to ask the question: Where do these differences come from, and why do we see this similar political divide throughout the ages?

Bedrock Issues

Although the hot political topic seems to constantly change throughout time, from disputes in the Roman Republic, to slavery, interracial marriage, gay marriage, immigration, etc., there do seem to be a few common threads in the underlying issues being debated (Hibbing et al., 2014). Often times, these topics can be broken up into two sides: (a) the political left, traditionally supporting equality, tolerance, progress, and new ideas; and (b) the right, which is more in support of authority, traditional values, order, and the status quo (Heywood, 2017; Laponce, 1981). Then of course there are all of those who fall in between, like Libertarians, who tend to lean left on social issues but tend to be right leaning on economics and government regulations. Political beliefs are multidimensional, complex, variable, and influenced by the environment (Coleman, 2005; Heywood, 2017; Zaller, 2011).

However, through all of the complexity and variation, many researchers have found consistent and undeniable trends that transcend time, country, and issue (Hibbing et al., 2014). Hibbing et al. (2014) argued the idea of bedrock social dilemmas, core preferences about how society should be structured, organized, live. They posited social groups need to decide on decision-making arrangements and leadership, distribution of resources, how to treat outgroups, how to respond to in-group misconduct, and how to integrate new ideas. Furthermore, this research explained some people will see outgroups as threats and others as potential friends, some think you should help the needy and others think you should help yourself, some believe in rehabilitation and others prefer punishment. Their research further conceptualized the bedrock dilemmas into four

categories: (a) degree of adherence to traditional values/moral codes, (b) treatment of outgroups/rulebreakers, (c) the role of group/individual, and (d) authority and leadership.

The bedrock social dilemma theory was put to the test, and the studies consistently found correlations of around 0.60, when compared to standard issue measures (Hibbing et al., 2014; Smith et al., 2011). This means current conservative positions were correlated with the bedrock issues of preferring traditional values, punishment over rehabilitation, unyielding leaders, and rewarding merit rather than need (Funk et al., 2012; Hibbing et al., 2014; Smith et al., 2011). The studies also found liberal bedrock positions predicted liberal issue stances, along with moderate positions predicting moderate views.

There does appear to be something to the idea that current political viewpoints are based on a set of deeper values. But, regardless of their origin, there is more that can be learned from this Left/Right divide.

Value Politics

Many people think of politics as a set of values people hold, and the creators of moral foundations theory would agree (Haidt & Graham, 2007; Koleva et al., 2015). The theory suggests five core moral values: (a) caring, (b) fairness, (c) loyalty, (d) authority, and (e) purity (Koleva et al., 2015). Not surprisingly, these five moral foundations are closely matched onto political ideologies, with liberals valuing caring and fairness and conservatives placing more importance on loyalty, authority, and purity (Haidt & Graham, 2007; Koleva et al., 2015).

Other research on values by Olver and Morradian (2003), not using moral foundations theory, found those with a left-leaning orientation valued universalism and

benevolence, and conformity and tradition were valued by those who leaned right. This type of research creates the connection between what one values and how one votes.

The Reach of Politics

Apart from being a great predictor of who someone will vote for in the next election, a person being consistently liberal or consistently conservative is correlated with a vast number of other personality, lifestyle, and genetic factors (Carney et al., 2008; Dollinger, 2007; Gillies & Campbell, 1985; Hibbing et al., 2014; Kanai et al., 2011; Murphy, 2011; Wilson et al., 1973). These data are correlational, and there are always exceptions to the findings; however, an exception to a pattern does not negate that the pattern exists (Hibbing et al., 2014).

Research on the topic of political differences ranges from surveys on food choice, personality, and neuroimaging. Studies found liberals were more likely to eat fresh fruits daily, more likely to be vegetarian, and more likely to try exotic foods than their conservative counterparts (Hibbing et al., 2014; Murphy, 2011). This general pattern extends well beyond food preferences and into the arts, poetry, and literature. Research has found, on average, liberals favored new experiences, ambiguous endings, and complex and abstract art (Dollinger, 2007; Gillies & Campbell, 1985; Hibbing et al., 2014; Wilson et al., 1973). Conservatives, on the other hand, consistently favored more traditional experiences, poems that rhyme, fiction that had a clear resolution, and they averted their eyes from abstract artwork to look at realistic landscapes (Dollinger, 2007; Gillies & Campbell, 1985; Hibbing et al., 2014; Wilson et al., 1973).

Even what makes people laugh is different, with conservatives preferring more closure and control and liberals being open to less structure and more self-expression

(Hibbing et al., 2014; Wilson, 1990; Wilson & Patterson, 1969). One such study found liberal participants scored higher on a need for cognition, which is the enjoyment of thinking and analyzing (Young et al., 2019). It is believed the need for cognition is the underlying reason why liberals found irony and exaggeration more humorous than conservatives; this particularly translated into their enjoyment of satire. One study that systematically inventoried the office spaces and bedrooms of over 100 participants found political preferences could be seen in the physical items in that person's space (Carney et al., 2008). Conservatives, in general, were more conventional, orderly, and organized, and liberals showed signs of more creativity, variety, and novelty seeking.

These divides continue into recreational activities, including the brand of car ownership, career paths, and stock market investments (Carney et al., 2008; Leder, 2006; Rothman et al., 2005; Tierney, 2005). However, the differences between liberals and conservatives go beyond art, food, and car preferences. The differences go to the root of what defines us: personality.

Personality and Politics

The relationship between personality factors and political ideology has been studied since the 1930s. It began with Nazi psychologist, Erich Jaensch, who proposed the distinction between two personality types: the J-Type made a good Nazi and would be tough, masculine, and make firm judgments, and the S-Type had indefinite judgments, liberal views, and enjoyed being "eccentric" (Brown, 1965; Jaensch, 1938). Although most opposed Jaensch's characterizations, they agreed with the underlying premise of personality types and went on to create their own theories and classifications of personality (Carney et al., 2008).

Today, the most researched personality theory has been the Big 5, consisting of (a) openness, (b) conscientiousness, (c) extraversion, (d) agreeableness, and (e) neuroticism (Shirayev, 2017). When it comes to the Big 5 and political ideology, there seems to be some very consistent trends in the research. Conservatism is correlated with high conscientiousness and low openness, and liberalism is correlated with high openness and less conscientiousness (Carney et al., 2008; Fatke, 2016; Gerber et al., 2010; Hibbing et al., 2014).

There is even a longitudinal study that found preschool children who would one day be liberals were described as self-reliant, emotionally expressive, and impulsive; future conservatives were described as rigid, fearful, and overcontrolled (Block & Block, 2006). Some use these data, along with other longitudinal twin studies, to argue personality and politics are merely correlated and are more influenced by heredity, biology, and physiology (Alford et al., 2005; Hatemi & Verhulst, 2015).

Politics Deep Down

No one is arguing one's political ideology is fated by nature, as we know it is always a mix of nature and nurture; however, there is a growing body of research on the genetic, physiological, and innate processes that can influence one's political leanings. Some of this research looks at what people pay attention to, such as gaze cueing effects; this is the concept that people will look where someone else is looking. As it turns out, liberals are more influenced by gaze cues than conservatives, even when instructed not to pay attention to the gaze cue (Carraro et al., 2015; Dodd et al., 2010; Hibbing et al., 2014). This suggests liberals pay closer attention to the social cues of others, or conservatives are better able to follow instructions, or possibly a mix of both.

Where one is looking also played a role in research that used eye tracking technology to see what people focused on. In studies that had participants look at a screen showing positive and negative images, conservatives spent significantly more time looking at negative images than liberals did and took longer to focus on positive images (Dodd et al., 2012; Hibbing et al., 2014). The pattern of conservatives to devote more time and attention to negative stimuli was also seen in several other studies, including with words on a Stroop-like test and with faces on Dot-Probe and Flanker Tasks (McClean et al., 2013; Hibbing et al., 2014; Honk et al., 2001).

But, people do not just differ on the amount of time focusing on negative stimuli, they also differ on their perception of the stimuli. When rating images as favorable or unfavorable on a Likert scale, conservatives would rate unfavorable images slightly more negative than liberals, but they also rated favorable images as slightly more positive (Hibbing et al., 2014). Similar results were found when presenting participants with pictures of people with ambiguous expressions. Republicans were more likely to see neutral expressions as threatening or dominant compared to Democrats (Vigil, 2010). This seems to indicate, even when paying attention to the same stimuli, liberals and conservatives are not always seeing the same thing.

Biology Politics

Political differences are not just surface-level things, not only seen through eye gaze and survey data. Differences run deep and can be measured in physiological responses and brain imaging techniques. In studies measuring the activation level of the sympathetic nervous system—think fight or flight—differences were found between liberals and conservatives (Hibbing et al., 2014; Oxley et al., 2008). There was more

activation of the sympathetic nervous system in response to threatening images by people who held conservative views on socially protective policies than those with more liberal views (Hibbing et al., 2014; Oxley et al., 2008).

Similar research by Ahn et al. (2014) found conservatives had higher physiological responses to disgusting images. This higher disgust response is connected with a biological mechanism that defends against contamination and physical threat, which can translate into a protectionist stance where safety and purity are highly valued. Currently, two of the most prominent purity-related values in the United States are gay rights and abortion; there is a stronger correlation with disgust responses and opposition to gay marriage and abortion than there is for any other conservative values (Smith et al., 2011). Having a more sensitive sympathetic nervous system creates more vigilance toward outgroups, which in turn encourages the adoption of protective political stances largely adopted by the conservative party (Hibbing et al., 2014).

Other researchers wanted to see if this type of physiological reaction affected behavior. One such study by Vanman et al. (2004) had participants review applications and found those who had higher levels of sympathetic nervous system activation when looking at people of color were more likely to choose a White candidate over a Black one. Findings such as this make it clear that implicit attitudes and automatic responses are having measurable effects on behaviors and decision-making processes.

In brain imaging studies, researchers found liberals on average had more gray matter making up their anterior cingulate cortex (Amodio et al., 2007; Kanai et al., 2011). The anterior cingulate cortex has been implicated in higher level cognitive functions, like

empathy, decision making, and affect regulation (Amodio et al., 2007; Hibbing et al., 2014; Kanai et al., 2011; Stevens et al., 2011).

There was a similar relationship between the amygdala size and conservative ideology, with conservatives having larger amygdalae than liberals (Kanai et al., 2011). The amygdala is largely responsible for the fear response but affects the perception of other emotions like anger and sadness, and the formation of memories (Hibbing et al., 2014; Kanai et al., 2011; Rule et al., 2011).

Physiological reactions and the size of one's amygdala do not generally drive behaviors or attitudes, but it shows they have the potential to do so (Kanai et al., 2011; Vanman et al., 2004). These findings add supporting evidence to the patterns and trends between liberals and conservatives that has been presented so far.

Different DNA

It is clear there are differences between liberals and conservatives. Differences have been found in their interests, personalities, and values, as well as in their brain structures and nervous system responses. However, these differences extend beyond the psychological and physiological and into DNA itself.

It is impossible to fully explore the impact of DNA, especially while following ethical and moral guidelines, but twin studies can provide very powerful information when it comes to questions about the power of DNA. The first twin study to tackle the topic of politics was published in 1986 (Martin et al., 1986). Martin et al. (1986) found identical twins, sharing 100% of their DNA, had significantly more similar political views than fraternal twins, who shared approximately 50% of their DNA. More recent

research has confirmed Martin's findings from twin studies conducted around the world (Alford et al., 2005; Bell et al., 2009; Fowler et al., 2008; Klemmensen et al., 2012).

The exact statistics vary, but, on average, both twin types have similar political views; however, identical twins had a correlation of approximately .62 and fraternal twins were around .35 (Alford et al., 2005; Bell et al., 2009; Fowler et al., 2008; Hibbing et al., 2014; Klemmensen et al., 2012). The idea is that all of the twin sets grow up together and therefore share most environmental factors, socioeconomic status, parents, etc.; therefore, it would make logical sense that twins would have similar views (Bell et al., 2009; Hibbing et al., 2014). However, identical twins are almost twice as likely to have similar political beliefs, suggesting the differences in similarity are due to DNA and not the environment (Alford et al., 2005; Bell et al., 2009; Fowler et al., 2008; Hibbing et al., 2014; Klemmensen et al., 2012).

There are some who argue identical twins have a more similar upbringing than fraternal twins, which is true, but the argument is not enough to dismiss such empirically and theoretically sound findings (Hibbing et al., 2014; Smith et al., 2011). Generally, it is thought that just under 40% of political attitudes are attributed to genetics—not 40% of an individual's views, but 40% of the overall population's variance in views (Hibbing et al., 2014).

Current research is looking at the human genome and attempting to find genes associated with liberalism or conservatism. Although this branch of research is still developing, studies have started to identify specific parts of genes associated with political ideology (Hatemi et al., 2011; Zaraska, 2016). One example of this was the discovery of a gene that increased activation of dopamine receptors and novelty seeking,

which was positively correlated with liberal political views (Zaraska, 2016). Again, this research is still in its infancy stages, but it has the potential to greatly increase understanding of human behavior and political underpinnings.

Origins of Black-and-White Thinking

Black-and-white thinking is defined as the propensity to think in terms of binary opposition: “friend or enemy,” “good or bad,” “Republican or Democrat,” and “all or nothing” (Oshio, 2009). Over the years, mainly psychologists, have had many names for this style of thinking: splitting, dichotomous thinking, all-or-nothing thinking, polarized thinking, and absolute thinking, to name a few (Beck et al., 1990; Freud, 2013; Zannarini et al., 2009).

As far as psychology goes, black-and-white thinking has its origins in the concept of “splitting,” which was introduced by Freud (2013) and other early psychoanalysts. Splitting changed slightly when the term was incorporated into object relations theory (Hinshelwood et al., 2013). It came to mean the splitting off of contrary emotions, so one person was only loved or hated, with a person being unable to hold both positive and negative views of someone at the same time (Freud et al., 1979; Zannarini et al., 2009). Klein, one of the primary developers of object relations theory, saw splitting as a defense mechanism, whereas Kernberg, a more modern object relations theorist, interpreted splitting as a developmental task (Hinshelwood et al., 2013; Kernberg, 2004). For Kernberg, it was important that children learn to integrate both the positive and negative aspects of a person, and failing to do so could lead to “borderline qualities” in an individual (Kernberg, 2004).

Black-and-White Thinking in Cognitive Behavioral Therapy

In cognitive behavioral therapy (CBT), the concept of splitting transformed into black-and-white thinking. Throughout CBT literature, it will be referred to as dichotomous thinking, all-or-nothing thinking, polarized thinking, and absolute thinking (Beck et al., 1990; Helmond et al., 2014; Yurica & Ditomasso, 2005). In CBT, black-and-white thinking is characterized as being unable to see the middle ground, only seeing black and white while missing out on all of the gray (Beck, 1991; Yurica & Ditomasso, 2005). It is perceiving life in extremes and missing much of its complexity, subtlety, and nuances.

Dichotomous thinking is also considered to be a cognitive distortion (Beck, 1991). Cognitive distortions are ways one's mind responds to stimuli in a way that is inaccurate or untrue (Beck, 1991; Burns, 1999). They are mostly automatic thoughts that reinforce negative thinking and unhelpful emotional responses (Beck, 1991; Burns, 1999; Yurica & Ditomasso, 2005). Cognitive distortions are one of the main targets of CBT; challenging, changing, and reducing them is a key element of the therapy.

Black-and-White Thinking in Personality Disorders

When it comes to black-and-white thinking and personality disorders, both psychoanalysis and CBT point to dichotomous thinking as one of the main characteristics of borderline personality disorder (Beck et al., 1990; Pretzer, 1990). Research by Arntz and Haff (2012) found levels of dichotomous thinking, more so than negativity or less complexity, was central in the perceptions of clients with borderline personality disorder, meaning addressing dichotomous thinking might be crucial for this disorder. In fact, the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) even

lists this type of thinking style as one of the criteria for borderline personality disorder, written as “a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation” (American Psychiatric Association, 2017, p. 663).

Dialectical behavior therapy (DBT), a treatment created to help treat people with borderline personality disorder, has dichotomous thinking at its core (Linehan, 2013). Dialectics, in ancient Greek philosophy, was “development through a back and forth movement between opposing propositions” (World Encyclopedia, 2017, p. 1). In DBT, the opposing propositions are self-acceptance and change-oriented strategies; resolving and synthesizing that both can be true at the same time facilitates healthy growth (Linehan, 2013, Rizvi & Roman, 2017).

Black-and-white thinking and splitting has also been linked to narcissistic personality disorder; however, in this case, the split is the self being wholly positive and others who do not agree as being wholly negative (Aradhye & Vonk, 2014; Yurica & Ditomasso, 2005). Beck et al. (1990) and Oshio (2009) measured levels of dichotomous thinking and found those with a higher level of dichotomous thinking were significantly more likely to have traits of borderline personality disorder and narcissistic personality disorder. Dichotomous belief has also been positively correlated with paranoid, schizoid, schizotypal, antisocial, histrionic, avoidant, dependent, and obsessive-compulsive personality disorder traits (Oshio, 2012). These types of findings suggest black-and-white thinking is not the most adaptive of thinking styles.

Research on Black-and-White Thinking

Some of the first research that looked at black-and-white thinking was conducted by Neuringer in the early 1960s. Neuringer (1961) found dichotomous evaluative thinking was significantly higher in suicidal individuals, when compared to a control group, and dichotomous evaluative thinking was a common characteristic of emotionally disturbed people.

More current research has found higher scores on dichotomous thinking scales was correlated with several negative psychological measures (Antunes-Alves et al., 2013; Egan et al., 2007; Oshio et al., 2016; Ostell & Oakland, 1999). One such study by Ostell and Oakland (1999) that examined schoolteachers found teachers with a dichotomous thinking style experienced their job demands as less pleasant. They also perceived themselves to be less effective at managing their emotions, less able to solve problems effectively, and as having poorer psychological and physical health (Ostell & Oakland, 1999).

Another study by Egan et al. (2007) examined the difference between positive and negative perfectionism. It sampled clinical, athlete, and student populations and found dichotomous thinking was the most predictive variable in relation to negative perfectionism. Other research on college students in Japan found a higher preference for dichotomy and dichotomous belief was found to be significantly positively correlated with the tendency to undervalue others (Oshio, 2009). Similarly, people who think dichotomously were found to have a greater tendency to classify people into two types: winners or losers.

Black-and-white thinking was also shown to correlate with aggression. Dichotomous thinking was positively correlated with verbal aggression, physical aggression, anger, and hostility (Oshio et al., 2016). This particular study found age was a moderating factor, meaning levels of dichotomous thinking were stable over age but with stronger correlation between dichotomous thinking and aggression in younger participants compared to older participants (Oshio et al., 2016). This suggests all ages experience similar rates of black-and-white thinking, but it might impact people differently based on their age.

Antunes-Alves et al. (2013) examined the effects of black-and-white thinking on clients' experiences of therapy sessions. Results showed a significant negative relationship between dichotomous thinking and clients' experiences of problem solving in therapy, as well as the relationship with their therapist. In other words, clients with higher rates of dichotomous thinking reported less problem solving in therapy sessions and were more likely to feel unsupported and misunderstood by their therapist (Antunes-Alves et al., 2013).

On a positive note, one study found participants who had higher levels of dichotomous thinking were rated by their friends as being more articulate and straightforward compared to those who had lower levels of black-and-white thinking (Oshio, 2009). As a whole, black-and-white thinking is considered to be an inaccurate and maladaptive way of viewing the world, and is correlated with many negative psychological factors.

Black-and-White Thinking and Political Ideology

So far, there has been no research that has specifically looked at black-and-white thinking in relationship to political ideology. Some examples of the closest research has come was a study by Hibbing et al. (2014) that found conservatives preferred closure, and liberals were more open to ambiguity. There is also the research by Young (2009) that found liberals were more likely to be soft categorizers, using less fixed labels, and conservatives were hard categorizers, using more fixed labels. These findings hint to liberals being more accepting of gray, and conservatives might prefer things to be black and white, meaning liberals, when compared to conservatives, might have lower levels of black-and-white thinking.

Operational Definitions

Political Ideology

Political ideology is a set of ethical ideals, principles, values, and beliefs about how society should work (Freedman, 2001). For the purpose of this study, political ideology is going to be conceptualized as conservative and liberal. The study will measure levels of political ideology through one self-report question and the Social and Economic Conservatism Scale, which measures views on current social and economic topics (Everett, 2013). A higher score will indicate more conservative, and a lower score will be categorized as liberal.

Black-and-White Thinking

Black-and-white thinking is defined as the propensity to think in terms of binary opposition: “friend or enemy,” “good or bad,” and “all or nothing”; it is perceiving things in extremes and missing the nuances (Beck, 1991; Oshio, 2009). This study will measure

black-and-white thinking using the Dichotomous Thinking Inventory (Oshio, 2009). The Dichotomous Thinking Inventory has an overall composite score and three subscales: Preference for Dichotomy, Dichotomous Belief, and Profit-and-Loss Thinking. In this study a higher score will indicate a greater propensity for black-and-white thinking, and a lower score will suggest the opposite.

Rationale for Current Study

It is clear from current trends in the United States that the gap between liberals and conservatives is widening (Pew Research Center, 2016). Not only is the gap widening, but politics are becoming a more hostile environment, with 85% of U.S. adults saying the political debate in the United States has become less respectful and more negative (Drake & Kiley, 2019). In 2017, almost half of Democrats and Republicans, or those who lean toward a party, viewed the opposing party very unfavorably, which is up from 20% in 1994 (Pew Research Center, 2017).

This increasing divide is not contained to the political arena. The news people watch, the news people trust, and even social media habits are all changing as the political divide grows and intensifies (Matsa et al., 2018). The distrust continues from the newsroom and into the classroom. A survey conducted in 2019 found 59% of Republican's think colleges and universities are having a negative effect on the way our country is going, a sharp increase from the 37% in 2015 (Parker, 2019). Over this time period, the views of Independents and Democrats have held relatively constant and overwhelmingly positive, with only 18% of Democrats having a negative assessment of higher education's impact on the United States (Parker, 2019).

The increasing political polarization in the United States has many similarities with higher levels of the black-and-white thinking. Political views are being pushed to the extremes, with less middle ground and ever more negative views of those on the other side of the spectrum (Pew Research Center, 2017). Compounding the issue is the growing distrust of news sources, higher education, and even of science and the scientific method (Funk et al., 2019; Parker, 2019). How is common ground to be found when education, science, and even facts are open to interpretation and dismissal?

Although the world of politics might seem unrelated to therapy and mental health, research has found the opposite; 59% surveyed reported being anxious because of the November 2016 election results, 50% were looking for ways to cope with the negative environment, and 26% were engaging in negative behaviors as a result (Caredash, 2017). Politics is also often perceived as something outside of the therapy office; however, that is not actually the case. A recent study found 87% of therapists reported discussing politics during a therapy session and 63% engaged in political self-disclosure (Solomonov & Barber, 2019).

The findings by Caredash (2017) and Solomonov and Barber (2019) made it clear counseling psychologists are not unaffected by politics. So far, almost no research has looked at a link between black-and-white thinking and political ideology; however, previous research hints people with more conservative viewpoints might have higher levels of black-and-white thinking (Hibbing et al., 2014; Young, 2009). This study explicitly searched for that connection. The goal is, by understanding the connection between politics and thinking styles, therapists will be better prepared to address it with their clients.

Hypothesis

Again, there has been no research that searched for a connection between political ideology and black-and-white thinking. The closest research has come to this topic included findings that liberals were more open to ambiguity and using less fixed labels, and conservatives preferred closure and were hard categorizers (Hibbing et al., 2014; Young, 2009). These findings suggest liberals might have lower levels of black-and-white thinking, and conservatives have higher levels. The research so far, and sometimes the lack thereof, has led to the following hypothesis:

H1: Participants will differ on dichotomous thinking based on political affiliation. Specifically, very conservative people will be more dichotomous than conservative leaning individuals who will be more dichotomous than moderate / independent, who will be more dichotomous than liberal leaning, who will be more dichotomous than very liberal people. This will be true for beliefs, preference, profit-and-loss, and overall total score.

H2: Participants will differ on social and economic conservatism based on their self-reported ideology, in that, conservatives will score significantly higher on levels of social and economic conservatism than moderate and liberal-leaning individuals.

H3: Dichotomous beliefs, preference, profit-and-loss, and overall total score will significantly predict social and economic conservatism.

Chapter 2

Methods

The research presented in the introduction showed political differences could be seen in personality, values, physiological responses, brain structures, and even DNA. There is also an increased political divide in the United States; each side has grown further apart, with more hostile rhetoric, and increased negative views of the opposing party (Drake & Kiley, 2019; Kiley, 2018; Pew Research Center, 2017). It also showed politics were affecting people's mental health and has been talked about by the majority of therapists (Caredash, 2017; Solomonov & Barber, 2019). This study looked to see if levels of black-and-white thinking were related to political differences.

H1: Participants will differ on dichotomous thinking based on political affiliation. Specifically, very conservative people will be more dichotomous than conservative leaning individuals who will be more dichotomous than moderate/independent, who will be more dichotomous than liberal leaning, who will be more dichotomous than very liberal people. This will be true for beliefs, preference, profit-and-loss, and overall total score.

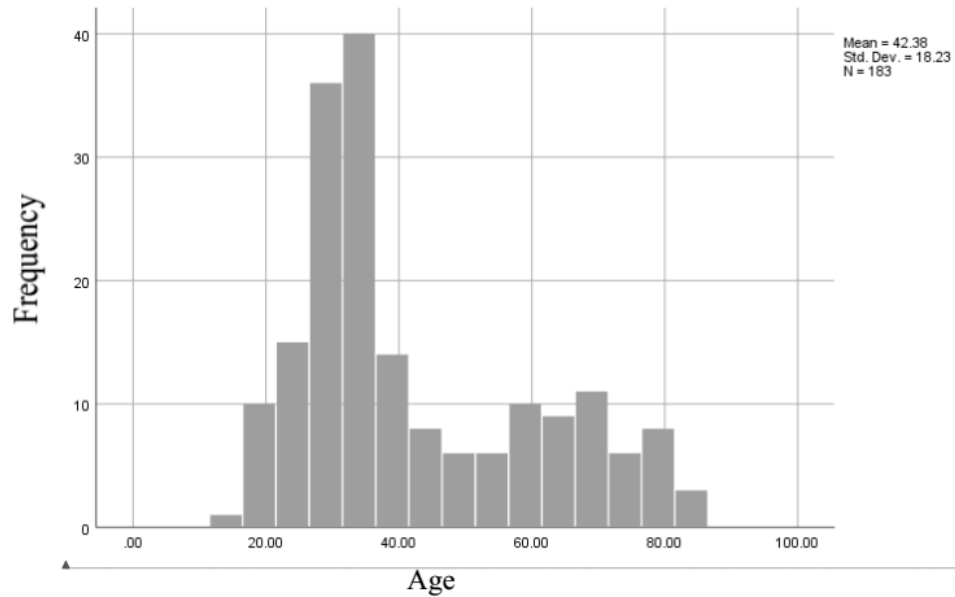
H2: Participants will differ on social and economic conservatism based on their self-reported ideology, in that conservatives will score significantly higher on levels of a. social and b. economic conservatism than moderate and liberal leaning individuals.

H3: Dichotomous beliefs, preference, profit-and-loss, and overall total score will significantly predict social and economic conservatism.

Participants

Participants in this study were least 18 years old. Participation was 100% voluntary, and all participants remained 100% anonymous. The study used the online survey provider, Qualtrics, and participants were found through a convenience sample. General requests for participation were announced via Facebook, email, and community forums. Informed consent was built into the survey and was confirmed before there was access to the survey. This study did not use any deception and ran for 2 weeks.

In 14 days, 213 surveys were collected for analysis through Qualtrics. Of the initial 213 responses, 30 (9.6%) surveys were excluded from analysis for being incomplete. Completed surveys ($n = 183$) were analyzed for significance. Of the 183 fully completed surveys, the slim majority of respondents were women (51%), with 49% of respondents identifying as male. Most participants were White (89%), with 3% Asian, 1% Black, 1% American Indian and Alaska Native, 1% Pacific Islander, and 7% Other. Participants ranged in age from 18–83 years, with a mean age of 42.38 ($SD = 18.23$). An age breakdown is shown in Figure 1. The highest level of education indicated by participants showed 1% had less than a high school degree, 3% were high school graduates, 13% had some college, 8% had a 2-year degree, 40% had a 4-year degree, 29% had a professional degree, and 6% had a doctorate.

Figure 1*Age Breakdown***Measures*****Black-and-White Thinking***

The Dichotomous Thinking Inventory (DTI; Oshio, 2009) is a 15-item scale comprised of three subscales, each with five items. The subscale consists of Preference for Dichotomy, Dichotomous Belief, and Profit-and-Loss Thinking. Higher scores in the Preference for Dichotomy subscale suggest a person has a thinking style drawn toward distinctness and clarity rather than ambiguity and obscurity. Increased scores in the Dichotomous Belief subscale suggest a person believes all things in the world are capable of division into two types, such as winner or loser and friend or foe, rather than treating things on a spectrum or in shades of grey. Finally, a higher score in Profit-and-Loss Thinking implies someone is motivated by an urge to gain access to benefits and to avoid disadvantages. The DTI is administered using a 6-point scale (1 = *strongly disagree* to 6

= *strongly agree*). Cronbach's alpha ranged from .72 (Profit-and-Loss) to .86 (Dichotomous Belief; Oshio, 2009). In the past, the DTI has been used to compare dichotomous thinking to levels of aggression, as well as borderline, narcissistic, and other personality disorders (Oshio, 2009, 2012, 2016).

Political Ideology

The 12-item Social and Economic Conservatism Scale (SECS; Everett, 2013) asks, "How positive or negative do you feel about each issue on a scale of 0 to 10, where 0 represents very negative, and 10 represents very positive?" It is broken up into two subscales: Social Conservatism and Economic Conservatism. Social Conservatism includes topics like abortion, traditional marriage, and traditional values. Examples of Economic Conservatism include limited government and welfare benefits. This measure was validated using political self-report measures ($r = .71, p < .001$), a Right Wing Authoritarianism scale ($r = .76, p < .001$), and others. Reliability analyses confirmed internal consistency, with a good overall Cronbach's alpha of .88.

Power Analysis

A power analysis was conducted to estimate the required sample size for a significant effect size. Assuming an effect size of 0.25, a significance level of $\alpha = .05$ and statistical power level of .95, with one predictor and seven response variables, a minimum of 95 participants was required.

Analysis

A MANOVA was used in this study to analyze the data. Black-and-white thinking was based off the DTI, and political ideology was based off the SECS and self-report measures. Demographic factors such as age, gender, and ethnicity were also examined.

Procedure

Following the approval of the Institutional Review Board (IRB), a short description of the researcher, the research, and a link to the survey were posted online. A link to this study's survey was posted on Facebook, online community and political forums, and sent out via email. The survey was hosted by Qualtrics, and participants needed to click the link to access the survey. There was no deception used, and participation was completely anonymous.

The survey began by asking demographic information of participants, including gender, age, education, ethnicity, and political ideology, followed by the SECS and DTI. There was a total of 32 questions with an estimated completion time of 4–8 minutes. Once data were collected, a multiple regression provided analyses for the DTI, SECS, and demographic information.

Chapter 3

Results

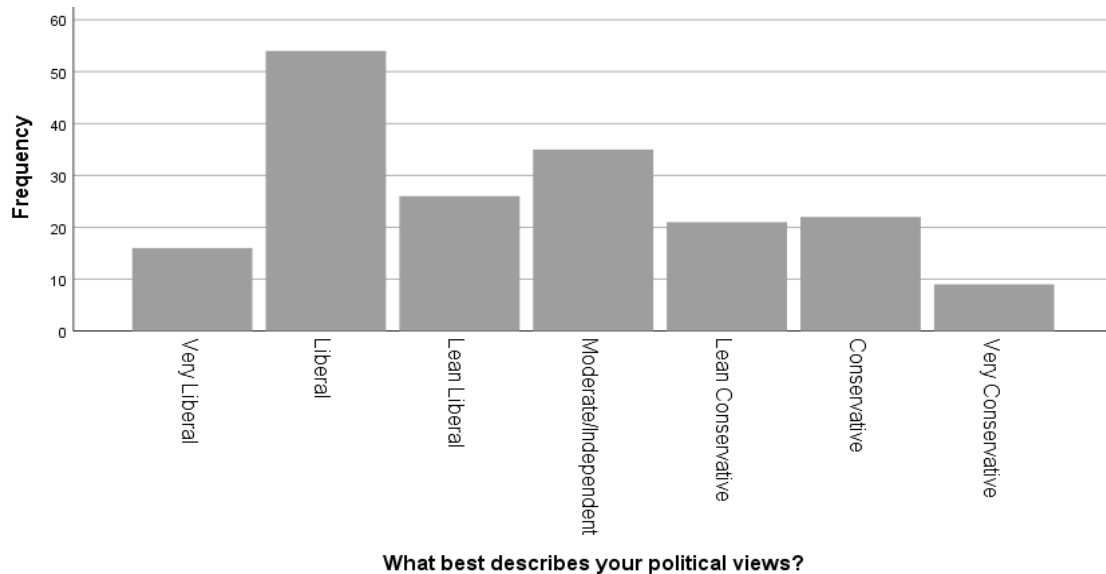
Chapter 3 is made up of four parts. The first part is descriptive statistics. This consists of basic statistical data, including participant demographic information, the self-reported political ideology distribution, and more. The next three sections correspond to the three hypotheses of this research. Each one restates the hypothesis, states if the hypothesis was confirmed or not, and then details the statistics analysis used support the conclusion. IBM SPSS Statistics 25 was used for all of the data analysis.

Descriptive Statistics

When asked what best describes one's political value, participants self-identified as very liberal (9%), liberal (30%), lean liberal (14%), moderate/independent (19%), lean conservative (11%), conservative (12%), and very conservative (5%), as seen in Figure 2.

Figure 2

Political Ideology Breakdown



Means and standard deviations were found for self-reported political ideology, SECS, the DTI, and their subscales. To obtain a mean and standard deviation for self-reported political views, options were assigned a numerical value (1 = *very liberal*, 2 = *liberal*, 3 = *lean liberal*, 4 = *moderate/independent*, 5 = *lean conservative*, 6 = *conservative*, and 7 = *very conservative*). When this was done, there was a mean of 3.5 and a standard deviation of 1.71. The means and standard deviations of the scales are as follows: SECS ($M = 79.25$, $SD = 20.96$), social conservatism ($M = 45.62$, $SD = 15.22$), economic conservatism ($M = 33.61$, $SD = 7.87$), DTI ($M = 40.31$, $SD = 9.47$), dichotomous belief ($M = 9.86$, $SD = 3.34$), preference for dichotomy ($M = 18.93$, $SD = 4.28$), and profit and loss thinking ($M = 19.51$, $SD = 3.76$).

Table 1 groups people based on their self-reported political ideology and then calculated different means and standard deviations for each group on the SECS and DTI.

Table 1

Descriptive Statistics

Variables	Mean (Standard Deviation)						
	SC	EC	OC	DB	PD	PL	OBD
Very liberal	32.06 (14.19)	28.75 (6.27)	60.81 (16.81)	8.31 (2.65)	18.31 (4.86)	18.75 (4.45)	45.38 (10.18)
Liberal	36.35 (9.82)	27.98 (5.34)	64.33 (10.92)	8.90 (2.82)	17.09 (3.98)	18.78 (3.51)	44.78 (8.39)
Lean Liberal	39.00 (11.64)	30.3 (4.55)	69.38 (12.84)	9.65 (2.88)	19.65 (4.24)	20.15 (2.98)	49.46 (7.54)
Moderate/indep endent	46.69 (11.97)	34.63 (5.90)	81.31 (12.91)	10.29 (3.60)	18.74 (4.25)	19.00 (4.07)	48.03 (10.29)
Lean Conservative	57.95 (8.19)	39.29 (6.08)	97.24 (10.50)	9.57 (2.20)	19.71 (3.36)	19.24 (4.08)	48.52 (7.65)
Conservative	63.55 (6.28)	43.55 (4.42)	107.09 (8.73)	11.73 (4.17)	21.41 (3.40)	21.18 (3.20)	54.32 (8.90)
Very Conservative	67.67 (5.29)	43.78 (4.18)	111.44 (8.65)	13.44 (3.64)	21.78 (4.81)	22.00 (3.90)	57.22 (10.10)

Note. SC = Social Conservative, EC = Economic Conservative, OC = Overall Conservatism, DB = Dichotomous Belief, PD = Preference for Dichotomy, PL = Profit and Loss Thinking, OBD = Overall Black and White Thinking

Pearson's correlations were used to test the associations between several variables, which are presented in Table 2.

Table 2

Correlations

	Education Level	Dichotomous Belief	Preference for Dichotomy	Profit and Loss	OBD
Political Ideology	-.213**	.342**	.309**	.200**	.340**
Social Conservative	-.109	.357**	.413**	.307**	.435**
Economic Conservative	-.190*	.240**	.295**	.175*	.288**
Overall Conservative	-.150*	.350**	.411**	.289**	.424**

Note. OBD = Overall Black and White Thinking. * Correlation is significant at the 0.05 level (2-tailed), ** Correlation is significant at the 0.01 level (2-tailed).

These variables show a statistically significant positive correlation between SECS scores and DTI scores. All of the subscales and overall scales are significantly correlated, indicating a statistically significant relationship between the variables.

Hypothesis 1

Hypothesis 1 stated: Participants will differ on dichotomous thinking based on political affiliation. Specifically, very conservative people will be more dichotomous than conservative leaning individuals who will be more dichotomous than moderate / independent, who will be more dichotomous than liberal leaning, who will be more dichotomous than very liberal people. This will be true for beliefs, preference, profit loss, and total score.

This hypothesis was supported using a variety of analytic strategies. First, looking purely at the differences in means show in the descriptive statistics of Table 1. People who reported being very conservative have the highest scores overall dichotomous thinking ($M = 57.22$), as well as dichotomous belief ($M = 13.44$), preference for dichotomy ($M =$

21.78), and profit and loss thinking ($M = 22.00$). Moderate / independents were in the middle and the very liberal group have lower scores overall dichotomous thinking ($M = 45.38$), dichotomous belief ($M = 8.31$), preference for dichotomy ($M = 18.31$), and profit and loss thinking ($M = 18.75$). Although not absolute, this trend generally holds that the means on the DTI are lower for liberal groups, higher for conservative ones, and moderates/independents in the middle.

A one-way multivariate analysis of variance (MANOVA) was conducted to determine if there was significant difference between the independent variable of self-reported political ideology (very liberal, liberal, lean liberal, independent/moderate, lean conservative, conservative, very conservative), and the dependent variables, DTI and SECS scores. Significant differences were found in black-and-white thinking and SECS among the seven self-reported political views, Wilks's $\Lambda = .28$, $F(30, 690) = 8.74$, $p < .01$. The multivariate η^2 based on Wilks's Λ was strong, .23. This finding confirms the differences in means among the groups are statistically significant.

Further, an analysis of variance was used to see what impact self-reported political ideology had on the dependent variable of DTI scores. It found self-reported conservative political affiliation significantly predicted dichotomous belief, $\eta^2 = .14$, $F(6, 183) = 4.86$, $p < .001$. Also, self-reported conservative political affiliation significantly predicted preference for dichotomy, $\eta^2 = .13$, $F(6, 183) = 4.28$, $p < .001$. Self-reported conservative political affiliation significantly predicted profit-and-loss thinking, $\eta^2 = .07$, $F(6, 183) = 2.16$, $p < .069$. Finally, self-reported conservative political affiliation significantly predicted overall black-and-white thinking, $\eta^2 = .15$, $F(6, 183) = 4.96$, $p < .001$.

Hypothesis 2

Hypothesis 2 stated: Participants will differ on social and economic conservatism based on their self-reported ideology, in that conservatives will score significantly higher on levels of social and economic conservatism than moderate and liberal leaning individuals.

For this hypothesis, self-reported conservative ideology included lean conservative, conservative, and very conservative, and self-reported liberal ideology included lean liberal, liberal, and very liberal. Again, this hypothesis was supported through multiple analytical strategies.

As demonstrated in Table 2, it is clear the means for conservative individuals in the SECS are higher than those for moderate/independent and the liberal groups have the lowest scores. This is true for social conservative, economic conservatism, and overall conservatism.

The previous MANOVA that determined there was a significant difference between self-reported political DTI and SECS scores was used again. The significant differences were found in black-and-white thinking and SECS among the seven self-reported political views, Wilks's $\Lambda = .28$, $F(30,690) = 8.74$, $p < .01$. The multivariate η^2 based on Wilks's Λ was strong, $.23$. It found self-reported conservative political affiliation significantly predicted social conservatism, $\eta^2 = .56$, $F(6, 183) = 36.53$, $p < .001$. Also, self-reported conservative political affiliation significantly predicted economic conservatism, $\eta^2 = .55$, $F(6, 183) = 35.61$, $p < .001$. Lastly, self-reported conservative political affiliation significantly predicted overall conservatism, $\eta^2 = .67$, $F(6, 183) = 58.70$, $p < .001$. The findings confirm differences between the means are

significant and an individual's self-reported ideology matched their scores on the SECS and its subscales.

Hypothesis 3

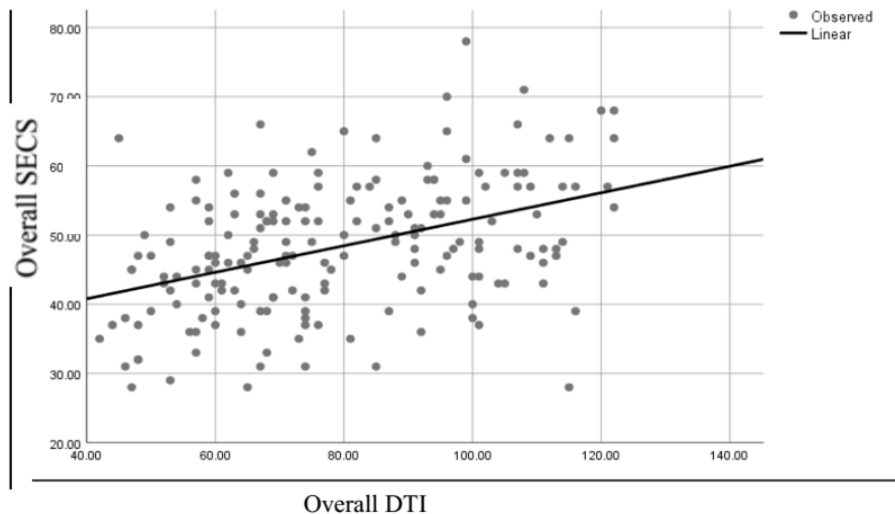
Hypothesis 3 stated: Dichotomous beliefs, preference, profit-and-loss, and overall total score will significantly predict social and economic conservatism.

This hypothesis is mostly confirmed. It found dichotomous belief, preference for dichotomy, and overall dichotomous thinking do predict social and economic conservatism, but profit-and-loss thinking does not.

A linear regression was used to look for a connection between conservatism scores on the SECS and levels of black-and-white thinking on the DTI. Figure 3 is a scatterplot with a fit line showing the data for the relationship between overall conservatism scores on the SECS (x-axis) and total level of blank-and-white thinking (y-axis) R^2 linear = 0.18.

Figure 3

Overall SECS and Overall DTI



Again, this shows a statistically significant positive relationship between overall DTI and overall SECS.

Finally, a regressions analysis was run to specifically find the coefficient of determination and see if DTI scores could significantly predict SECS scores. This found dichotomous thinking significantly predicted Social Conservatism, $R^2 = .20$, $F(4, 183) = 13.73$, $p < .001$ meaning, in this study, 20% of one's social conservatism could be explained by their overall score on the DTI. It found the subscales of dichotomous belief and preference for dichotomy were significant predictors, but profit-and-loss thinking was not. The regression analysis also found dichotomous thinking significantly predicted economic conservatism, $R^2 = .10$ $F(4, 183) = 7.53$, $p < .001$. This means 10% of an individual's economic conservatism scores can be explained by DTI scores. Again, the subscales of dichotomous belief and preference for dichotomy were significant predictors, but profit-and-loss thinking was not.

Overall, many of the results were statistically significant. The research found significant differences among self-reported ideology as a ranked variable but also when using the SECS. The subscales of dichotomous belief and preference for dichotomy had the strongest relationship and profit-and-loss thinking had a smaller one. Age and education did not have a significant correlation with black-and-white thinking; however, age was positively correlated with conservative political ideology and education was negatively correlated with conservatism. In the end, results show those with higher levels of black-and-white thinking are more likely to have conservative political ideologies.

Chapter 4

Discussion

The main goal of this study was to determine if there was a relationship between black-and-white thinking and political ideology. This study is the first of which I am aware that has directly looked to see if levels of social and economic conservatism were connected to people's levels of dichotomous thinking. Findings of this study supported the hypotheses and were constant with the small amount of existing literature addressing this topic (Hibbing et al., 2014; Young, 2009).

The hypothesis that self-reported conservatives (lean conservative, conservative, and very conservative) would have higher scores than other categories (moderate / independent, lean liberal, liberal, very liberal) on the social and economic conservatism scale was fully supported. This held true for all seven categories; very liberal was the lowest, and very conservative was the highest. The hypothesis that said conservatives would have higher levels of dichotomous thinking than moderates/independents and moderates/independents would have higher scores than liberals was also supported. The hypothesis that related to levels of dichotomous thinking predicting political ideology was mostly supported. This hypothesis was accurate for the subscales of preference for dichotomy and dichotomous belief, the DTI total, but not for the profit-and-loss subscale. Overall, the findings were that those with higher level of black-and-white thinking had more conservative views.

Self-Report and Social and Economic Conservatism

As expected, participants self-reported political views strongly correlated with their scores on the Social and Economic Conservatism Scale, meaning people who self-

identified as very conservative had the highest scores on the social and economic conservatism scales and subscales, followed by conservative, lean conservative, moderate/independent, lean liberal, liberal, and very liberal. As an example, someone who says they are very conservative would tend to have less favorable views on gay marriage and abortion while having a more positive response to gun rights and traditional families. The findings indicate people's reported ideology generally matched their views on current political topics. This is supported by previous research done in this area (Everett, 2013; Fuchs & Klingemann, 1990; Jost, 2006). This overall consistency between self-reported political ideology and scores of the SECS allows for a firm foundation on which to examine the rest of the study's findings.

Conservatism and Black-and-White Thinking

It was hypothesized that conservatives would have higher levels of black-and-white thinking than moderates, and moderates more than liberal. This hypothesis was supported by the findings. On the whole, the more conservative someone was, the higher their scores were on the subscales of dichotomous belief, preference for dichotomy, profit-and-loss thinking, and overall dichotomous thinking. Of the subscales, dichotomous belief had the strongest relationship to political ideology, and profit-and-loss had the weakest; however, all were significant. Dichotomous belief also had the strongest correlation with social conservatism. This indicates conservatives, especially socially conservatives, are more likely to believe the world can be split up into friend and enemy, good and bad, and liberals are more likely to see shades of gray. These findings support previous research that hinted toward these results (Hibbing et al., 2014; Young,

2009). Hibbing et al. (2014) found conservatives dislike ambiguity, and Young (2009) found conservatives were more likely to use hard categorizations than liberals.

Dichotomous Thinking Predicting Political Ideology

The hypothesis that levels of dichotomous belief, preference for dichotomy, profit-and loss-thinking, and overall dichotomous thinking could predict social and economic conservatism is mostly supported. There is a statistically significant positive correlation between all of the thinking style scales and the conservatism scales. A regression analysis found the overall dichotomous thinking explained 20% of the variance in social conservatism scores; with preference for dichotomy and dichotomous belief were significant predictors, but profit-and-loss thinking was not. Ten percent of the variance in economic conservatism was explained by overall dichotomous thinking; again, preference for dichotomy and dichotomous beliefs were significant predictors, but profit-and-loss thinking was not.

These data suggested people with different thinking styles were more drawn to different political ideology. It is logical that DTI scores explained large proportion of social conservatism when compared to economic conservatism. Conservative perspectives around gay marriage, abortion, and traditional family values are often seen as moral issues, having a clear right and wrong, whereas economic conservatism is traditionally less so (Haidt & Graham, 2007; Koleva et al., 2015; Olver & Morradian, 2003).

Limitations

There are several limitations to this study.

Sampling

All participants were found through online means: Facebook, Reddit, and email. This sampling method could have created unintentional biases, as all people were active internet users, and their results might not represent the whole population. The study also did not account for participants' location, again creating a sample that might not accurately represent the whole United States.

Representation

There were almost twice as many self-identified liberals (53%) as conservatives (28%) and only about eight very conservative subjects (5%). This was not an accurate representation of the United States. Along with this, most participants were White (89%), again not an accurate reflection of the racial or ethnic diversity in the United States.

Self-Report

Data were self-reported, which will always have certain limitations (Salters-Pedneault, 2020). These limitations include possible dishonesty, response bias, misinterpretation of the questions, and inaccurate introspection (Devaux & Sassi, 2015; Salters-Pedneault, 2020). There is always a small chance these inherent limitations of self-report data could have impacted the results of this study.

Religion

One factor that was not studied was religion. Religious belief has been tied to political ideology in the United States for decades (Maltby, 1998; Sciupac & Smith, 2018; Wald & Caulhoun-Brown, 2014). In the 2018 U.S. election, Christian-faithed people were more likely to vote conservatively, while Jews, "other faiths," and nonreligious people were voting liberal more than 70% of the time (Sciupac & Smith,

2018). This suggests conservatives are more likely to be Christians than liberals are. Also, religious affiliation has been associated with rigidity and higher levels of black-and-white thinking (Maltby, 1998; Vanderheyden, 1999). These two types of findings suggest religion could be mediator or moderator variable and future studies should incorporate religion, as well as political ideology, when studying black-and-white thinking.

Future Directions

Because it is the first known study to directly measure black-and-white thinking and political ideology, future research could try and replicate the study. Replication would benefit from having a more politically and ethnically representative sample. Future research could also consider religion, age, income, and education as possible mediator or moderator variables. Specifically, including religion into the study would provide clarity and remove this study's largest limitation.

There is also potential to look at political ideology in relation to psychological disorders. Previous research has found black-and-white thinking to be positively correlated with many personality disorders traits (Oshio, 2012). Future research could see if this trend crosses over into political ideology, examining rates of symptoms of personality disorders, depression, anxiety, OCD, and others, across ideological lines.

Experimental research could also look to see if therapy or interventions aimed at reducing a person's level of black-and-white thinking had any impact on their political ideology. Potentially, this research could look to see if decreasing dichotomous thinking increases the participant's positive feelings toward people with different opinions and values.

Implications

Results of this study do find conservatives tend to have higher levels of black-and-white thinking than moderates and liberals. Previous research has also found higher levels of black-and-white thinking is correlated with higher levels of aggression (Oshio et al., 2016), undervaluing others (Oshio, 2009), negative perfectionism (Egan et al., 2007), and worse perceptions of the therapeutic relationship (Antunes-Alves et al., 2013). As an example, in seeing the gray, one must also acknowledge that black-and-white thinking is not all bad. People with higher levels of this thinking style were seen as more articulate and straightforward (Oshio, 2009). It would be too reductionist to equate these less desirable qualities with conservative political ideology; however, the implications cannot be totally ignored either. All sides of the spectrum can have high levels of black-and-white thinking and the potential negative implications of that vary greatly.

In Therapy

Although this research is not directly related to the clinical application, it does have implications for those in therapeutic settings. Due to the connection between black-and-white thinking and political ideology, this research found and previous research that showed those with higher levels of black-and-white thinking had worse perceptions of the therapeutic relationship, a therapist might consider spending more time when joining with a conservative client (Antunes-Alves et al., 2013). Building a strong therapeutic alliance is crucial to effective therapy and it is important to be aware that different groups can have different perspectives of that bond (Falkenström et al., 2016).

Black-and-white thinking is something that can be directly addressed in therapy. Considered a cognitive distortion in CBT, it can be a goal of therapy to reduce this

unhelpful thinking habit (Beck, 2020). Through methods like perspective taking, challenging thoughts, listing alternatives, and more, dichotomous thinking can be reduced, and a client can employ more accurate and helpful ways of thinking (Beck, 2020).

Another part of many therapists' job is providing psychoeducation (Beck, 2020; Beck et al., 1990; Helmond et al., 2014; Yurica & Ditomasso, 2005). This entails educating and providing accurate information to the client so they can better understand and cope with a given situation (Bäumel et al., 2006). This means having a greater understanding on the connection between politics and psychology is important. Understanding in how one speaks with clients and being able to illuminate complex differences in physiology, values, and thinking styles that underlie certain political viewpoints. This will aid clients and clinicians to be better at navigating and responding to people with vastly different ideologies.

Increasing Understanding

The partisan divide in the United States is becoming more hostile (Drake & Kiley, 2019), politics are increasingly affecting mental health (Caredash, 2017), and therapists are talking to their clients about it (Solomonov & Barber, 2019). The initial goal of this study was to increase the understanding on the connection between politics and psychology and ideally help in reducing the partisan divide. However, for the vast political divide to shift in this country, it is going to take people changing their perspectives and views. This is easier said than done.

An almost 40-year longitudinal study on adults found "core political predispositions tend to be highly stable through the life span" (Sears & Funk, 1999, p. 2). It

found a large minority changed in small yet consistent ways, but changing from one partisan side to the other was uncommon (Sears & Funk, 1999). Also, there was strong evidence that early attitudes and predispositions became more fixed over time, meaning people became more set in their ways and beliefs (Sears & Funk, 1999).

There is also a large amount of evidence people will not change their mind, even when presented with evidence that refutes their beliefs (Ahluwalia, 2000; Kaplan et al., 2016; Paluck & Green, 2009). In fact, sometimes, being presented with contrary evidence causes people to dig into their preexisting beliefs even further (Paluck & Green, 2009). Brain imaging research has further highlighted this phenomenon of resistance to change. A study looked at 40 liberals with brain imaging technology while they were presented with evidence that contradicted their beliefs (Kaplan et al., 2016). When they were presented with contradictory political information, there was an increased activation in the dorsomedial prefrontal cortex, a part of the brain associated with self-representation and our enduring self (Kaplan et al., 2016). This increase activation was not seen as strongly when presented with nonpolitical contradictory evidence and people were more likely to change nonpolitical beliefs, suggesting political values are part of many peoples core identity (Kaplan et al., 2016).

With this large body of research showing political ideology is largely stable over time and that people are very good at maintaining their beliefs even in the face of contradictory evidence, it can be difficult to see a way forward (Ahluwalia, 2000; Kaplan et al., 2016; Paluck & Green, 2009). However, there is some promising research that shows hope for creating lasting change. A study by Broockman and Kalla (2016) looked to see if door-to-door canvassing could reduce transphobia. Canvassers went door to door

and first asked each person to talk about a time they were judged negatively for being different and how their own experience offered a glimpse into transgender persons experience (Broockman & Kalla, 2016). It ended by asking if this active perspective taking changed their mind at all. It turns out it did; this 10 minute conversation was an effective intervention. There was a reduction in transphobic sentiment and an increase in support of nondiscrimination laws; these findings persisted after exposure to counter arguments and for at least 3 months later (Broockman & Kalla, 2016). Research like this highlights change is possible when approached the right way.

Creating Change

All of this taken together suggests, when it comes to politics, arguing with facts is not very effective (Ahluwalia, 2000; Kaplan et al., 2016; Paluck & Green, 2009; Sears & Funk, 1999). People's brains respond to political counter arguments as if the information was a direct attack on their identity and have the propensity to dig in their heels (Kaplan et al., 2016). But, if one can access the other's emotions, connect them to another group through active perspective taking, it appears change is possible and potentially enduring.

A deep understanding of people and ways of creating change are hallmarks of a therapist. On a political level, this understanding is often overlooked, and change is not talked about. The aim of therapy is generally not about changing clients' ideology, but that does not mean a therapist should not understand how political views are formed and changed. Knowledge about differences in brain activation and thinking styles can create empathy and understanding for a worldview that might be very different. This empathy can help build a stronger therapeutic alliance and insight into the change process can help therapist achieve better outcomes with their clients.

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Appendix A

Recruitment

Dissertation, Northwest University
Patrick Meyer

I am in my fourth year of my Counseling Psychology (PsyD) doctoral program at Northwest University. I am currently conducting research for my doctoral dissertation, and I am writing to ask for your assistance with my work.

The purpose of this study is to examine thinking style and political ideology. It will involve answering demographic questions and filling out a web-based survey approximating 4-8 minutes. You will be in control of information you offer and may exit the survey at any time.

Participation in this study is voluntary. All responses are anonymous and will remain confidential

There are minimal risks associated with participation. However, if any questions or content of this questionnaire bring up personal questions, confusion, or anxiety, please contact the Crisis Call Center at 1 (800) 273-8255 or <http://crisiscallcenter.org/>. You may also seek further help by contacting the Crisis Text Line at www.crisistextline.org, or by texting "HOME" to 741741.

You are eligible to participate in this study if you:

1. Are 18 years or older

This research has been reviewed and approved according to the Northwest University Institutional Review Board procedures for research involving human subjects.

If you have questions or concerns regarding your rights as a participant in this study, or if you wish to report a concern or complaint, you may contact:

Dr. Kim Lampson
Northwest University Email: Kim.Lampson@northwestu.edu

You can access the survey via: [INSERT QUALTRICS LINK]

Thank you for your consideration,

Patrick Meyer, MACP
Doctoral Student in Counseling Psychology

Appendix B

Consent Form

Dissertation, Northwest University
Patrick Meyer, MACP

You are invited to participate in a research study conducted by a psychology student in the doctoral program at Northwest University. The study is being conducted as a requirement for completion of the doctoral dissertation. The purpose of this study is to examine thinking style and political ideology.

If you agree to participate in the study you will be given various web-based questionnaires. Participation in the study typically takes 4-8 minutes and is strictly confidential. You begin by answering a few demographic questions like your age, sex, followed by a few brief questionnaires that will ask about your political viewpoints and thinking style. Your responses will be confidential and will not be linked to any identifying information about you. You may discontinue the questionnaire at any time if you wish.

There are minimal risks associated with participation. Some individuals may be uncomfortable answering personal questions. The benefit of taking part in this study is the opportunity to participate in the research process as a research subject. Your participation in this research will also help provide more research in an area of the field that is lacking. However, should you experience stress as a result of participating in this survey please contact the Crisis Call Center at 1 (800) 273-8255 or <http://crisiscallcenter.org/>. You may also seek further help by contacting the Crisis Text Line at www.crisistextline.org, or by texting "HOME" to 741741.

Participation in this study is voluntary. You may choose not to participate in this study at any time and for any reason. There will not be any negative consequences for you if you refuse to participate. All responses are anonymous and will remain confidential. By turning in this questionnaire, you are giving permission to use your responses in this research study. The results of this study will be written up in a doctoral dissertation and may be presented at a professional conference.

If there are further questions about this study, contact Patrick Meyer (206) 999-3391 Email: patrick.meyer16@northwestu.edu; Dr. Kim Lampson, Northwest University College of Social and Behavioral Sciences, at (425) 889-5320, Email: kim.lampson@northwestu.edu; or the Chair of the Northwest University Institutional Review Board Dr. Cherri Seese at (425) 285-2413, Email: cherri.seese@northwestu.edu.

Thank you for considering participation in this study.

Please print a copy of this consent form for future reference

If you are 18 years of age or older, understand the statements above, and freely consent to participate in the study, click on the "I Agree" button to begin the survey.

Appendix C

Survey Questions

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1. Please enter your age:

2. Please select sex:

- Female
- Male
- Prefer not to say

3. Please indicate your Race:

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White

4. Please indicate your highest level of education:

- Less than a high school diploma
- High School degree or equivalent (e.g., GED)
- Some College, no degree
- Associate degree
- Bachelor's degree
- Professional degree
- Master's degree
- Doctorate

5. What best describes your political views?

- Very Liberal
- Mostly Liberal
- Somewhat Liberal
- Moderate/Independent
- Somewhat Conservative
- Mostly Conservative
- Very Conservative

Dichotomous Thinking Inventory

To what extent do you agree with the following statements? For each statement, please circle one of the points on the scales from 1 = strongly disagree to 6 = strongly agree. 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree

- A. All things work out better when likes and dislikes are clear. 1 2 3 4 5 6
- B. There are only “winners” and “losers” in this world. 1 2 3 4 5 6
- C. I want to clearly distinguish what is safe and what is dangerous. 1 2 3 4 5 6
- D. It works out best when even ambiguous things are made clear-cut. 1 2 3 4 5 6
- E. I think all people can be divided into “winners” and “losers.” 1 2 3 4 5 6
- F. Information should be defined as either true or false. 1 2 3 4 5 6
- G. I dislike ambiguous attitudes. 1 2 3 4 5 6
- H. People can clearly be distinguished as being “good” or “bad.” 1 2 3 4 5 6
- I. I want to clarify whether things are beneficial to me or not. 1 2 3 4 5 6
- J. I want to clarify whether things are “good” or “bad.” 1 2 3 4 5 6
- K. All questions have either a right answer or a wrong answer. 1 2 3 4 5 6
- L. I prefer to classify information as being useful or useless for me. 1 2 3 4 5 6
- M. It feels good when boundaries are clear for all things. 1 2 3 4 5 6
- N. I think of everyone as being either my friend or my enemy. 1 2 3 4 5 6
- O. It is best when competitions have clear outcomes. 1 2 3 4 5 6

Political Values

“Please indicate the extent to which you feel positive or negative towards each issue. Scores of 0 indicate greater negativity, and scores of 10 indicate greater positivity. Scores of 5 indicate that you feel neutral about the issue.”

- 1. Abortion 0 1 2 3 4 5 6 7 8 9 10
- 2. Limited government 0 1 2 3 4 5 6 7 8 9 10
- 3. Military and national security 0 1 2 3 4 5 6 7 8 9 10
- 4. Religion 0 1 2 3 4 5 6 7 8 9 10
- 5. Welfare benefits 0 1 2 3 4 5 6 7 8 9 10
- 6. Gun ownership 0 1 2 3 4 5 6 7 8 9 10
- 7. Traditional marriage 0 1 2 3 4 5 6 7 8 9 10
- 8. Traditional values 0 1 2 3 4 5 6 7 8 9 10
- 9. Fiscal responsibility 0 1 2 3 4 5 6 7 8 9 10
- 10. Business 0 1 2 3 4 5 6 7 8 9 10
- 11. The family unit 0 1 2 3 4 5 6 7 8 9 10
- 12. Patriotism 0 1 2 3 4 5 6 7 8 9 10