UNIVERSITY OF CALIFORNIA, MERCED

Inhuman Partisans

A dissertation submitted in partial satisfaction of the requirements for the degree
Doctor of Philosophy

in

Political Science

by

Jung Chen

Committee in Charge:

Professor Matthew Hibbing, Chair
Professor Elaine Denny
Professor Brad LeVeck

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The Dissertation of Jung Chen is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

_____
Matthew Hibbing, Chair

_____
Elaine Denny

_____
Brad LeVeck

University of California, Merced
2023

Dedication

To my pig and dolphin.

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Acknowledgements

"To confront, after this long and vivid nightmare, myself."

—Dolores Abernathy*, Westworld*

My journey as a graduate student at UC Merced ends here. This far and dwindling road I set foot in six years ago yet faded away in a blink of an eye at the finish line. I am grateful for all the challenges that shattered me and the support I received along the way that empowered me to eventually understand who I truly am. While the finale is very different from what I had imagined years ago, this has been a brilliant journey of self-awakening and I have no regrets.

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JUNG CHEN 陳榮

CONTACT

Department of Political Science
University of California, Merced
5200 Lake Rd., Merced, CA 95343

✉jchen378@ucmerced.edu

EDUCATION

University of California, Merced — Merced, CA

Ph.D. in Political Science — 2023
Dissertation: Inhuman Partisans
Committee: Matthew V. Hibbing (chair), Elaine K. Denny, Brad L. LeVeck

M.A. in Political Science — 2020

The University of Texas at Austin — Austin, TX

M.S. in Data Science — 2024

National Cheng Kung University — Tainan, Taiwan

B.S. in Psychology — 2016
B.A. in Political Science — 2016

FOCUS

Substantive: Political Psychology; Political Behavior; Biology and Politics; Taiwan Politics
Methodological: Quantitative Methods; Experimental Design; Behavioral Game Theory

EXPERIENCE

Senior Survey Scientist, Morning Consult — 2023
Survey Scientist, Morning Consult — 2022-2023
Political Science Lab Manager, UC Merced — 2021-2022
Graduate Student Researcher, UC Merced

Supervisor:

Melissa L. Sands	Winter 2020, Summer 2021
Daniel N.J. de Kadt and J. Andrew Harris	Summer 2020
Stephen P. Nicholson	Summer 2020

WORKING PAPER

(1) "Uncovering the Physiological Basis of Sinophobic Attitudes in Taiwan." (*2019 UC Merced Political Science Departmental Top Paper Award*)
(2) "Misperceptions About Cooperation Cause Partisan Segregation." (with Matthew V. Hibbing and Brad L. LeVeck)
(3) "Partisan Dehumanization in Strategic Reasoning."

AWARD

APSA Accessibility Grant ($190)	2021
APSA Political Psychology Section Support Grant ($100)	2021
APSA Accessibility Grant ($150)	2020
UC Merced Graduate Student Association Travel Award ($400)	2020
UC Merced Political Science Departmental Top Paper Award	2019
UC Merced Political Science Departmental Teaching Award	2019
UC Merced Political Science Research Fellowship ($24133)	2017-2022

INVITED TALK

Populism in East Asian Democracies, Lecture Series and International Research Colloquium of the Institute of East Asian Studies, University of Duisburg-Essen, Winter 2020/21

CONFERENCE

APSA (paper)	2020, 2021
NYU CESS Mini-Conference (poster)	2021
MPSA (paper)	2019, 2020 (Canceled due to COVID-19)
MPMC Graduate Student Conference (paper)	2020 (Canceled due to COVID-19)
APSA Political Psychology Pre-Conference (poster)	2019
ISPP (paper)	2018

TRAINING

Complexity Interactive (Santa Fe Institute)	2022
International Statistical Genetics Workshop (University of Colorado Boulder)	2021
ICPSR Summer Program (University of Michigan)	2019
Institute for Political Methodology (Academia Sinica, Taiwan)	2017
Summer Institute in Political Psychology (Stanford University)	2016

TEACHING

Instructor of Record, UC Merced

Political Behavior Around the World (Undergraduate Level) — Fall 2021

Teaching Fellow, UC Merced

Advanced Causal Inference (Ph.D. Level) — Spring 2022, Fall 2022

Instructor: Tesalia E. Rizzo Reyes

Teaching Assistant, UC Merced

Understanding Political Controversy (Undergraduate Level) — 2018-2021

Instructors: Brad L. LeVeck, Jessica L. Trounstine

Introduction to Comparative Politics (Undergraduate Level) — 2017-2018

Instructors: Daniel N.J. de Kadt, Alex M. Kroeger

SKILL

Software: R, Stata, Python, SPSS, NetLogo, SQL, M*plus*, MATLAB, LaTeX
Experiment: E-Prime, SuperLab, PsychoPy, Psychtoolbox, oTree
Language: English (Proficient), Mandarin (Native)

Inhuman Partisans

Jung Chen
Doctor of Philosophy in Political Science
University of California, Merced

Abstract

"These violent delights have violent ends."
— Friar Lawrence, *Romeo and Juliet*

Recognizing our shared humanity and seeing other people living amidst us as fellow humans is crucial for the functioning of society. Albeit rivalries and cleavages will always exist across civilizations due to human nature, knowing that the oppositions are inherently and irrevocably the same humans as us can often draw a limit to the conflictual confrontations. Nonetheless, history has taught us that mass killings and murders, the supreme acts of evil facilitated by no longer treating people as humans, can still happen from time to time, such as how Nazis treated the Jewish people during World War II. While these instances are generally considered rare events, what if this were to change? What if this notion of depriving oppositions of their humanity becomes so prevalent among the general public that gradually opens doors to normalize the acceptance of extreme acts of violence within an everyday form of conflict that most people experience: politics? Will political competitions that are designed to sustain a healthy democracy spiral into endless cycles of violent polarization that become common and not surprising?

Dehumanization, defined as the denial of full humanness to others, has long been studied in the context of intergroup relations within social psychology (Haslam 2006). From the subtle form of depriving human essence (Haslam and Loughnan 2014; Leyens et al. 2000) to the blatantly animalistic perceptions (Kteily and Bruneau 2017b), the very existence of dehumanization has proven to be intimately linked to the darkest side of intergroup conflicts in human nature (D. L. Smith 2020). However, social scientists have only just begun to explore the political implications of dehumanization.

Building on the emerging levels of animosity and discrimination toward out-partisans (Iyengar and Westwood 2015) and the rising level of affective polarization in the United States (Iyengar, Sood, and Lelkes 2012), some recently published studies find that Democrats and Republicans are equally willing to go so far as to dehumanize one another, and this level of dehumanizing perception is associated with the extremeness of partisan identity and the affective distances between the parties (Cassese 2019, 2020; Martherus et al. 2019; Moore-Berg et al. 2020a, 2020b). These findings provide evidence of a new form of psychological mechanism that electorates are willing to go beyond simply disliking out-partisans to the extreme antipathy of dehumanizing out-partisans. This increasing level of polarizing attitudes can be detrimental to the very foundation of

democratic institutions (Graham and Svolik 2020; Levitsky and Ziblatt 2018), projecting a dimmer future for the great American democracy.

Why does partisan dehumanization occur? Existing studies in political science seem to implicitly treat it as merely a different function of affective polarization. Yet, neuroscientific evidence proves that dehumanizing perception is indeed a distinct construct as compared to common negative or prejudicial attitudes that drive affective polarization (Bruneau et al. 2018). As a result, other than establishing its robust empirical association with extreme partisanship and ideology, the causes and consequences of partisan dehumanization remain largely unexplored. Also, if affective polarization and partisan dehumanization are such unwelcome phenomena that we should seek to avoid, why are the American partisans still embracing *partyism* and even willing to justify violent behaviors toward the other side (Kalmoe and Mason 2022)?

In my dissertation, I argue that extreme attitudes and dehumanizing perceptions serve as cognitive mechanisms to satisfy a basic human need: the pursuit of happiness. As politics becomes more complex nowadays (Lupia 2016), yet easier to access at the same time (Bakshy, Messing, and Adamic 2015), to prevent themselves from feeling stressed and discouraged when navigating through the complicated political world, the political hobbyists (Hersh 2020) among us gradually become more extreme to enjoy *being part of politics*. At the same time, dehumanizing perceptions emerge as a cognitive function to justify *schadenfreude* in the political arena, which brings more joy to the partisans and further intensifies the cycle of polarization. In short, in responding to the more complicated political world, partisans equipped with a stronger identity and dehumanizing perceptions toward their opponents are simply *better* at playing and enjoying the political games.

This dissertation proceeds in three parts to scrutinize the prominence of partisan dehumanization in the contemporary United States. The first part outlines the main theoretical arguments that at the individual level, extreme attitudes and dehumanizing perceptions can allow partisans to generate more positive attitudes in politics. Utilizing data from a continuous diary study and an experiment designed to elicit dehumanization, the empirical results provide tentative evidence that corroborates the theoretical expectations. The second part offers a set of novel measurements for partisan dehumanization with lab and survey experiments, drawing insights from social psychology and behavioral game theory. As compared to plainly using self-reported survey scales, I suggest these measures can grant us richer facets of dehumanization. The third part focuses on the contextual element: how partisan segregation correlates with the degree of partisan dehumanization. Using a nationally representative survey and multilevel regression with poststratification, this part presents state-level estimations that indicate how environmental factors can also interact with dehumanizing attitudes.

Part I

The Rapturous Root of Partisan Dehumanization

"Their despair... is the seasoning."
— Tahm Kench, *League of Legends*

1.1 A Brief Overview of Dehumanization

Dehumanization refers to the idea of perceiving or treating others as if they are less than fully human, which is a distinct psychological construct and the emerging focus within the studies of intergroup relations in recent years (Haslam and Stratemeyer 2016). Kelman (1973) is among the first social psychologists to engage in the research of dehumanization systematically, in which he conceptualizes dehumanizing perceptions as the denial of people's "identity" and "community." Since then, several other scholars have developed different conceptualizations of dehumanization, ranging from the more subtle, everyday form to the more blatant, extreme form (Kteily and Landry 2022). Leyens et al. (2000) use the term "infrahumanization" to describe a gentle form of dehumanizing process in which the unique humanness of "secondary emotion" is deprived and denied to out-groups. Haslam (2006) proposes a dual model indicating dehumanization occurs when either uniquely human (UH) traits or human nature (HN) is denied. Harris (2017) suggests that dehumanized perception emerges mainly due to the flexibility of "social cognition" that renders people failing to perceive humanity; they also provide direct evidence to corroborate their claim drawing on the findings of social neuroscience (Lasana T. Harris and Fiske 2006). Some scholars also argue that the more subtle and implicit perspectives of dehumanization may be insufficient to explain real-world intergroup conflicts and urge to focus on studying the more blatant forms of dehumanization (Hodson, Kteily, and Hoffarth 2014; Kteily and Bruneau 2017b; Kteily et al. 2015). While these conceptualizations inspire different aspects of dehumanization (which also inform the development of different measurements), a key element that all of them share is intact: that dehumanization has to involve denying, overlooking, or excluding the humanity of others, this central membership that all people should share since birth. Thus, following the argument of D. L. Smith (2021), in this dissertation I adopt a simple but core definition for dehumanization. Dehumanization is any attempt, attitudinal or behavioral, that conceives members of the targeted group as something that is less than fully human. To dehumanize, subtly or blatantly, is to think of others as beings that do not equip the essence of human.

A common concern regarding dehumanization is whether it really is a distinct construct, or simply another way to express dislike and antipathy. Indeed, measures of dehumanization are correlated with feeling thermometer measures in relevant findings (Kteily and Bruneau 2017a), and the potential outcomes of dehumanization resonate with outcomes of prejudice such as racial discrimination (Goff et al. 2008). Nevertheless, dehumanization should be considered a distinct construct in at least two ways. First, common prejudice and discrimination often carry negative valence (Devine 1989). To dislike someone or feel antipathy toward someone, by definition,

connects to the summoning of negative emotional reactions. Dehumanization, however, is not necessarily characterized by such emotional elements. While there are studies suggesting fear, anger, or disgust can facilitate dehumanizing perceptions (Buckels and Trapnell 2013; Giner-Sorolla and Russell 2019), they are not what defines dehumanization. As described above, subtle conceptualizations of dehumanization that deny out-groups human-unique traits or attributes don't require a negative drive. Dehumanizing attitudes occur when treating out-groups as something that's not fully human, but prejudicial or discriminatory attitudes don't necessarily have this element. Antipathy and dislike in inter-group conflicts often form exactly because out-groups are humans just like us (e.g. failing to comprehend why supporters on the other side of the aisle can have such widely divergent political attitudes when they are the same human beings as ourselves gives rise to animosity). Thus, what defines the construct of dehumanization can be different from what defines prejudice or discrimination. Second, empirical evidence provides a basis for the distinctiveness of dehumanization. Dehumanization can contribute independent effects in statistical models after controlling for feeling thermometer scores (Jardina and Piston 2021; Kteily, Hodson, and Bruneau 2016), and that engaging in dehumanizing perceptions activates a different set of brain regions as compared to disliking (Bruneau et al. 2018), thus corroborating the notion that dehumanization should be considered as a separate construct to be scrutinized.

Who is most likely to fall victim to dehumanization, and why do people want to dehumanize them? Building on the stereotype content model (Fiske et al. 2002), Lasana T. Harris and Fiske (2006) indicate that those that are "lowest of the low," the out-groups that are low on both competence and warmth, are most likely to be perceived as less than human. There are also other targets in diverse domains suffering from dehumanization, such as gay people (Fasoli et al. 2016) and society norm-breakers (Bastian, Denson, and Haslam 2013). Where there exists group hierarchy and asymmetric status, submissive groups tend to be dehumanized by the dominant groups. These findings link directly to the factors contributing to dehumanization. Spanning over results from numerous studies, the most salient dispositional predictors of dehumanization are social dominance orientation (SDO) and right-wing authoritarianism (RWA) (Haslam and Stratemeyer 2016). SDO is an individual personality trait that indexes support for hierarchy among social groups (Pratto et al. 1994), and since dehumanization is broadly construed as depriving certain people's humanness and rendering them lower status, its association with SDO is naturally evident (Costello and Hodson 2011; Esses et al. 2008). Similar to SDO, RWA also correlates with out-group antipathy and prejudice (Whitley Jr. 1999), hence conjugates well with the conception of dehumanization (Kteily et al. 2015).

While these are well-established targets and individual correlates of dehumanization, the pattern is not deterministic. Members of submissive groups are also capable of dehumanizing dominant groups, and one such contributing factor is "meta-dehumanization" (Kteily, Hodson, and Bruneau 2016). That is, when people believe that a certain out-group is dehumanizing them, they will dehumanize

reciprocally in response and contribute to cycles of tolerance for violence. People who do not possess higher levels of RWA and SDO can also be motivated to engage in dehumanization, and one such unique motivation is to avoid affective costs (Cameron, Harris, and Payne 2016). That is, instead of trying to emphasize with members of the targeted groups or engaging in prejudiced perceptions or discriminative behaviors that can arouse negative affect, treating them as something that's not human is the simplest way to avoid emotional exhaustion. This psychological mechanism links to the acceptance of violence toward the perceived subhuman targets (Rai, Valdesolo, and Graham 2017) and the rationalization *schadenfreude*, the pleasure derived from their sufferings (Wang, Lilienfeld, and Rochat 2019). The more a person dehumanizes a specific group, the more indifference and the easier it is to tolerate violence toward members of that group and justify extracting joy from their misfortunes.

In sum, dehumanization can be conceived as a distinct concept given it's unique definition that differs from other forms of prejudice and discrimination, and also the instrumental motivation associated with its origin. From the more implicit and subtle form of depriving human essence (Haslam and Loughnan 2014; Leyens et al. 2000) to the more explicit and aggressive form of blatantly subhuman perceptions (Hodson, Kteily, and Hoffarth 2014; Kteily and Bruneau 2017b), the very existence of dehumanization has proven to be intimately linked to the darkest side of intergroup conflicts in human nature such as genocide and holocaust (D. L. Smith 2011, 2020). While extreme violence conflicts like these are still rare cases, there's an alarming pattern that a similar situation might be exacerbating and occurring at a more common form of competitive interaction: the partisan dynamics between Democrats and Republicans in the United States. The next section provides the current landscape of partisan dehumanization in American politics and proposes a certain instrumental motivation to explain its emergence.

1.2 Polarization and Dehumanization in American Politics

In American politics, partisanship is king (Nicholson 2012). The ubiquity of the influences of party identification on political attitudes and behaviors is well-documented throughout the relevant literature (e.g. Achen and Bartels 2016; Campbell et al. 1960; Green, Palmquist, and Schickler 2004). Drawing insights from social identity theory (Tajfel and Turner 1979), political scientists nowadays generally view party identification as an internalized group identity (Huddy, Mason, and Aarøe 2015; Mason 2018), a psychological attachment in which the political party is conceptualized as the extension of the self (Theodoridis 2017). When people are attaching themselves strongly to the group and developing a visceral feeling of "oneness," this tends to motivate them to engage in extreme pro-group actions (Swann Jr. and Buhrmester 2015).

Consequently, within the realm of party politics in the United States, we seem to be observing this extreme endorsement of one's own group (party) in the form of

exacerbating affective polarization (Finkel et al. 2020; Iyengar, Sood, and Lelkes 2012; Iyengar et al. 2019). Partisans in the present context are holding emerging levels of animosity and discrimination toward out-partisans (Iyengar and Westwood 2015) and are willing to openly apply monstrous and animalistic metaphors to describe out-party members on mass media platforms (Cassese 2018). This negativity manifests not just in politics but also influences apolitically everyday judgments as well (e.g. Engelhardt and Utych 2018; Huber and Malhotra 2017; Nicholson et al. 2016). Such a "negative partisanship" also has profound electoral consequences in the form of voting excessively and tenaciously loyal (Abramowitz and Webster 2016, 2018), which could be detrimental to the value of democracy itself, and can sabotage the freedom and equality we so treasured in the contemporary era (Graham and Svolik 2020; Levitsky and Ziblatt 2018; Svolik 2020). Admittedly, this hyperpolarization of American politics is an empirical conundrum that requires greater scholarly scrutiny and urgent remedies (McCarty 2019).

What's more, a number of recent studies have uncovered that not only do partisans dislike one another; but they also go so far as to *dehumanize* one another blatantly. Utilizing the well-validated *ascent of man* scale developed by Kteily et al. (2015), Martherus et al. (2019) find that irrespective of the potential social desirability concerns, both Democrats and Republicans are more than willing to describe out-partisans as less-evolved human beings, and such dehumanizing thoughts amplify with the strength of partisanship. Cassese (2019, 2020) indicates that the extent to engage in dehumanizing perceptions is strongly associated with the level of affective polarization and moral distances. Moore-Berg et al. (2020a, 2020b) suggest that despite there exists no distinct hierarchy between both political parties in the United States, dehumanization can still emerge and thrive upon "meta-dehumanization" within partisans' hearts and minds, thereby contributing to further toxic intergroup hostility and erode the foundations of democratic spirits (Landry et al. 2021). Also, Jardina and Piston (2021) is among the first to uncover that the dehumanization of African Americans among White voters produce a unique effect that contributes to supporting Donald Trump during the 2016 presidential election. Initial evidence also suggests that dehumanization predicts and moderates greater tolerance for partisan violence (Kalmoe and Mason 2022; Nicholson et al. 2023).

Can dehumanization only happen within the partisan context? Not necessarily. In the United States, studies have documented the existence of group dehumanization between race and ethnic cleavages with common targets being minorities like African Americans (Goff et al. 2008; Mekawi, Bresin, and Hunter 2016) and immigrants (Kteily et al. 2015; Utych 2018), as well as religious minorities like Muslims (Petsko et al. 2020). However, this dissertation chooses to focus on partisan dehumanization as partisanship has gradually become an umbrella identity for other social cleavages nowadays (Mason 2018) and dominates other demographic factors in interpersonal decision-making environments (LeVeck, Hibbing, and Chen 2023; Theodoridis, Goggin, and Deichert 2022). As the most activated and salient identity in American politics, it can naturally assimilate and nest other identities as an easily recognizable target of dehumanization.

Ideally, the society most of us prefer to live in is the one where people can efficiently and effectively communicate and negotiate with one another even in light of obvious differences. And it is indeed the case that political polarization is among the top issues that most Americans are concerned about and wish to address.[1] Then, why do affective polarization and partisan dehumanization continuing to exist and worsen? What gives rise to such *partyism*? Specifically for partisan dehumanization as there exists no obvious hierarchy between parties, at least objectively speaking, so there are no submissive-dominant group dynamics. And given that RWA and SDO tend to correlate with conservatism, one should expect Republicans to be the most dehumanizing group, but empirical evidence suggests that both parties are equally dehumanizing one another. Thus, the common factors explaining why dehumanization occurs don't seem to fit the pattern of partisan dehumanization. In the next section, I attempt to provide a simple motivation to explain that extreme attitudes and dehumanizing perceptions serve as cognitive capacities responding to the complex nature of politics, with the goal of maintaining a rewarding mentality for people to navigate the political world. In other words, developing extreme attitudes and dehumanizing out-partisans makes us *happy* in politics.

1.3 The Pursuit of Partisan Happiness

Politics has always been a complicated and costly matter for ordinary citizens (Converse 1964; Downs 1957; Kinder and Kalmoe 2017), even more so in recent years as more and more issues such as climate change, immigration, and the most recent compliance to coronavirus policies are being tied to the political affairs. Initial evidence indicates that the number of issues viewed by the public as important and related to politics have doubled over the past thirty years (Ársælsson and Skalinder 2020), and as the media environment becomes more diverse (Prior 2007), even the same issue can be framed in different ways that further introduces greater complexity (Lupia 2016). As a result, unless equipped with intrinsically strong political interests and motivations (Prior 2018), the majority of us would prefer to shy away from politics as it's not only complicated but also can induce physiological and psychological distress (Smith, Hibbing, and Hibbing 2019). Empirical evidence does suggest that politics can make people "sick." Ford et al. (2023) find that daily thinking of political events evoked negative emotions that correspond to worsened physiological and psychological well-being. Hagan et al. (2020) find that the 2016 presidential election induced clinical distress among college students. And in a more comparative context, Chang and Meyerhoefer (2023) also find that there is an increase in health care usage and expense among Taiwanese citizens during election and campaign periods.

In recent years, with the advancement of technology and the flourishing of social media platforms, it has also become relatively easier for ordinary people to be a part

1. https://fivethirtyeight.com/features/3-in-10-americans-named-political-polarization-as-a-top-issue-facing-the-country/

of politics (Bakshy, Messing, and Adamic 2015; Berry and Sobieraj 2013). Unlike when information and activities related to politics are more difficult to access in the past, people nowadays can just use their cellphones to follow tweets from politicians or engage in political arguments with one another on Facebook and Twitter on a daily basis. In other words, the costs of exposure to and being part of politics have decreased significantly. Not just *how*, technological changes also have profound implications on *why* people choose to be a part of politics. While conventional wisdom tells us that people participate in politics due to a sense of civic duty (Blais and Achen 2019; Campbell 2006; Verba and Almond 1963), as the internet enables the openness of the political process and people possess more free time nowadays, recent studies suggest that the majority of us instead follow politics by treating it as a hobby (Hersh 2017, 2020). That is, rather than being a part of politics to advance certain instrumental goals, political hobbyists simply wish to acquire leisure and pleasure. Admittedly, to treat something like a personal hobby, basic logic would dictate that we'd always wanted to feel good about or enjoy it rather than being overwhelmed or frustrated by it. For example, we wouldn't describe going to graduate school as a hobby, because it is almost always an excruciating experience for anyone. Thus, we are, at least in part, motivated to pursue happiness when engaging in politics.

As politics can be overwhelming and disturbing for ordinary citizens, they would really need to embrace it as a hobby to overcome the negative concomitants. How best to generate happiness and be good at politics when confronting its inherent complexity? Two attributes emerge as the potential answer. First, equipping a stronger partisan identity and more extreme ideological views. Partisanship is the most potent cue in American politics (Nicholson 2012) and can allow people to filter out complicated and excessive information regarding copious political issues (Campbell et al. 1960). The dichotomous thinking of "us versus them" serves as cognitive-economic heuristics in decision-making processes, reducing the mental burden that could decrease well-being. Second, developing dehumanizing perceptions toward out-partisans. Given the cooperative and conflictual nature of politics, relatively speaking, there should always be a losing side and a winning side, specifically within the American two-party system context. Stronger dehumanizing perception allows partisans to more easily justify and rationalize the schadenfreude upon seeing the instances where the other side loses, thereby translating into their own happiness. Several theories in social psychology posit that schadenfreude often occurs in intergroup contexts when individuals perceive out-group members as deserving of misfortunes (Feather and Sherman 2002; Feather and Nairn 2005), envious of their achievement and status (Lange, Weidman, and Crusius 2018; R. H. Smith 2013), or feeling threatened by them (Chang, Krosch, and Cikara 2016; Cikara and Fiske 2013). As argued by Wang, Lilienfeld, and Rochat (2019), the underlying model behind these different explanations can be the motivation to dehumanize. The tendency to downgrade out-group members as subhuman beings incapable of possessing human-unique essences rationalizes the deservingness of misery, justifies failures that sabotage their status, and degrades their competencies, which ultimately leads to schadenfreude. Initial evidence documents that partisan schadenfreude

is already prevalent among the American mass public (Webster, Glynn, and Motta 2022), thus accompanying this with increased partisan dehumanization reinforces this political landscape in which while cleavages continued to deteriorate at the society level, at the individual level it can be ironically mentally beneficial for partisans to adhere to this pattern. The theoretical claim here is intentionally parsimonious and it does not require partisans to encompass an advanced understanding of political status. Partisans don't need to care deeply about society and wish to promote certain political agendas to dehumanize, nor do they need to possess a mental encyclopedia and search for reasons to hate out-partisans to dehumanize. They only need to care deeply, selfishly about whether this makes them feel good, and make the decisions accordingly.

Tying these together, I argue that adopting extreme partisan thinking and perceiving out-partisans as subhuman beings are cognitive mechanisms for partisans to maximize utilities within the political arena. Assuming it's human nature to pursue happiness as suggested by Socrate's wisdom and that a part of us tend to treat politics as a hobby, people who are exposed to politics and confront its complexity would motivate themselves to maintain a satisfying condition by developing the above two attributes: partyism to make decisions simpler and partisan dehumanization to distill partisan schadenfreude. As a result, when politics becomes more complex and people are more easily exposed to politics, these partisans possessing extreme attitudes and dehumanizing perceptions should be more likely to enjoy habitual politics and thrive in the process of pursuing partisan happiness. The theoretical expectations here would generate two empirical hypotheses:

H1: *Partisans with more extreme political attitudes are happier in politics.*
H2: *Greater partisan dehumanization leads to stronger out-partisan schadenfreude.*

If pursuing happiness is what motivates partisans to adopt more extreme attitudes and engage in partisan dehumanization, we should likely expect those who are strong partisans or extremely ideological are more likely to experience happiness in general. Figure 1.1 provides a stylized fact of general happiness among people with differing partisan strengths. Using data from the General Social Survey,[2] I plot the average proportions of people saying they're feeling "very happy these days" when taking the survey, separated by partisan strength and across the years. As we can see, strong partisans are always the happiest people, sometimes even experiencing increased spikes of joy during midterm and presidential election years. Albeit a very likely confounded relationship, this at least suggests an empirical association that for some people, politics may be more like a hobby to them and they're able to extract pleasance out of it (Hersh 2020), and thereby facilitating dehumanizing perceptions and schadenfreude. Investigating more rigorous evidence to further substantiate these claims, in the next section I turn to two different sources of data to answer the above two hypotheses.

2. Data Source: https://gss.norc.org

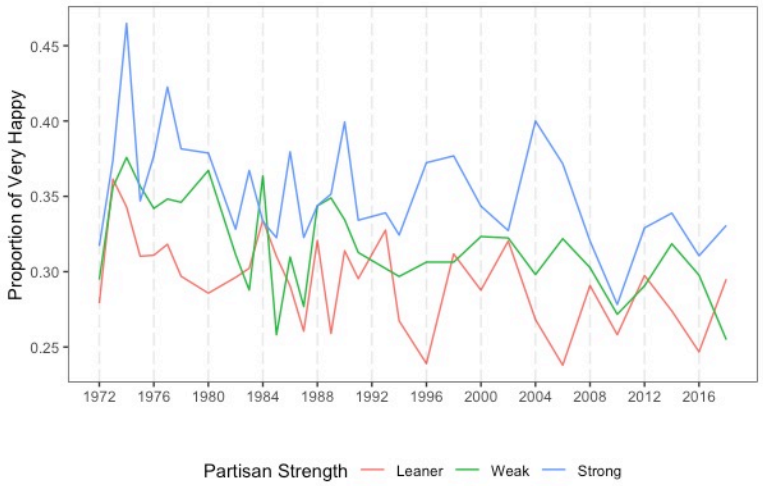

Figure 1.1: Average Proportions of "Very Happy" People by Partisan Strength, 1972-2018

1.4 Study 1: Observational

1.4.1 Data

To examine whether extreme partisans are more likely to be happy, feel positive, and have increased subjective well-being in politics, I rely on Ford et al. (2023)'s Study 1 replication data, which is publicly available on Open Science Foundations.[3] This study tracked 198 partisans in the United States (129 Democrats and 69 Republicans) over two weeks using diary methods to send out daily reminders of gauging their self-assessed emotional responses toward political events and their self-assessed psychological well-being. The study was conducted in three consecutive waves with each respondent being measured for 14 days, and the total $N = 2772$.

Also, an important inclusion criterion for the participant of their study is that they need to be thinking about politics daily already. Hence, it suffices to say that the sample here can be broadly construed as political hobbyists that are into politics on a daily basis. Plus this would be an ideal sample to test the hypotheses here since these respondents are already immersed themselves in the political environment, and to see whether adopting extreme attitudes can indeed be a useful strategy to cut through the informational complexities. If the study were to be conducted among people who are not attentive to or interested in politics, it wouldn't be suited to test the hypotheses here as these people would generally be independents without attachment to either party, and their apathy to the political environment wouldn't require them to adopt more extreme attitudes or identity attachment.

3. Data Source: https://osf.io/c7fq9

1.4.2 Measures

The independent variable of interest is political extremity. While the study collected participants' partisanship, it did not include a direct measure of partisan strength. Nonetheless, it does contain a measure for 7-point scale ideological extremity (1 = Very Liberal to 4 = Moderate to 7 = Very Conservative), which tend to be strongly and positively associated with partisan strength (Jost 2006). I folded and reverse coded this variable to construct political extremity measures, which results in a 4-point scale from 0 to 3 with higher values indicating more extreme ideological views.

The dependent variable of interest is subjective psychological well-being, which is an average between four questions: "Today, I felt satisfied with life," "Today, I felt like my life has a clear sense of purpose," "I felt depressed today", and "Today, I felt stressed" each measure on a 7-point scale from 1= Strongly Disagree to 7 = Strongly agree with the latter two reverse coded.

The relationship between variables here is observational in nature and causal interpretation should not be extended. However, the intensive longitudinal aspect of it allows for repeated measures and offers more external validity to capture and mimic the substantive relationship as compared to one-shot surveys. Also, given partisanship and ideology tend to be core attitudes that remain stable while daily well-being fluctuates more (as demonstrated below), this lends a more sound basis for political extremity to affect happiness compared to the other way around.

The study also collected basic demographics of gender, age, ethnicity, and income, which will serve as control variables in the following analyses.

1.4.3 Results

Figure 1.2 first visualizes the trend of average psychological well-being separated by political extremity throughout the course of data collection days. Despite the time-series fluctuation, it appears people who are ideologically moderate consistently experience less positivity each day compared to higher values of political extremity.

Table 1.1 demonstrates the results of two OLS regression models estimating the relationship between political extremity and psychological well-being while controlling for demographic covariates. As we can see in Model 1, there is a significant association such that a one-unit increase in political extremity corresponds with a 0.188 unit increase in psychological well-being, providing support for H1. The more ideological extreme a partisan is, the more likely they are going to report improved well-being and happiness.

Model 2 considers a subgroup analysis of whether this relationship is moderated by party identification. Based on the results, we can see that the positive association between political extremity and psychological well-being is mostly driven by being a Republican. With the significance of the interaction term, this indicates that particularly among Republicans, increased political extremity coexists with better well-being compared to Democrats. Figure 1.3 further plots such a relationship.

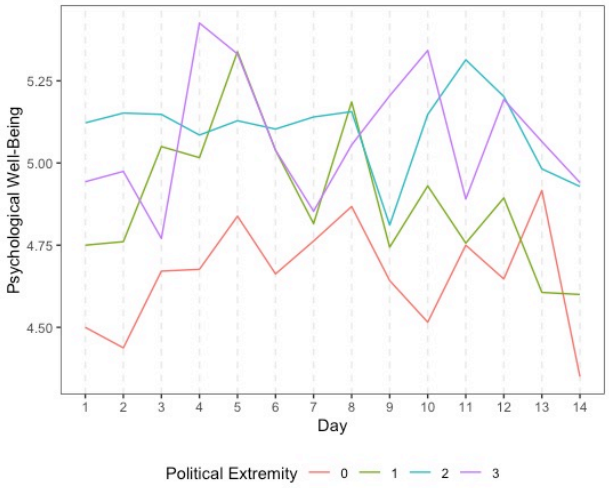

Figure 1.2: Average Psychological Well-Being by Political Extremity

Table 1.1: Relationships between Political Extremity and Psychological Well-Being

	Dependent variable: Psychological Well-Being	
	Model 1	Model 2
Political Extremity	0.188^{**}	-0.080
	(0.089)	(0.103)
Republican		-1.289^{***}
		(0.351)
Political Extremity × Republican		0.705^{***}
		(0.156)
Constant	4.628^{***}	4.949^{***}
	(0.472)	(0.471)
Gender	Y	Y
Age	Y	Y
Ethnicity	Y	Y
Income	Y	Y
Day Fixed	Y	Y
Wave Fixed	Y	Y
Observations	2163	2163
R^2	0.119	0.157
F Statistic	9.175^{***} (25;195)	11.07^{***} (27;195)

Note: Huber-White robust standard errors clustered at the individual in parentheses. *p<0.1; **p<0.05; ***p<0.01

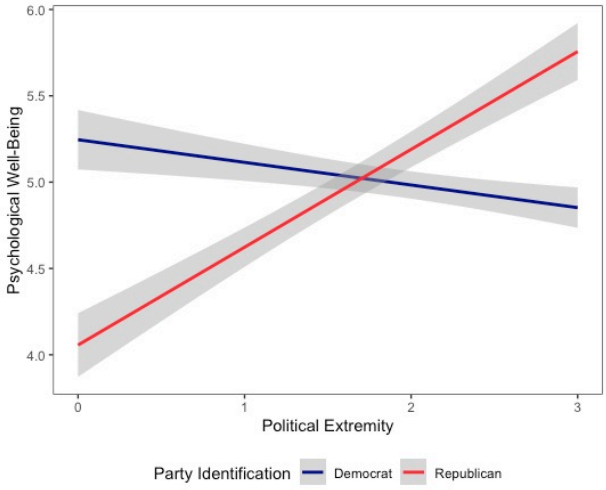

Figure 1.3: Relationship between Political Extremity and Psychological Well-Being by Party Identification

1.5 Study 2: Experimental

1.5.1 Data

To attempt a more causal analysis in responding to H2, I conducted a simple randomized experiment designed to induce dehumanizing perceptions toward out-partisans and examined how that affects feelings of schadenfreude toward out-partisans. Here I provide a quick overview of the design and treatment, while the details of the entire experiment will be elaborated further in the next part of the dissertation.

The experiment was on a total of 105 college students who self-identified as partisans (91 Democrats, 14 Republicans). Participants completed a noise-based reverse correlation (Dotsch and Todorov 2012) to visually induce dehumanization. The task consists of judging a series of facial images imposed with random visual noises of their similarity to certain social groups, in this case, co-partisans or out-partisans based on randomization. After classifying all the individual stimulus images, a composite outcome image can be generated based on participants' choices that embody the ocular conception of the target group (Figure 1.4). This task has been used as a measurement for dehumanization (Kunst, Kteily, and Thomsen 2017; Petsko et al. 2020) in other contexts and is considered an experimental treatment here. The idea is that participants assigned to perform this task to judge out-partisans will be induced to generate dehumanizing perceptions toward out-partisans compared to participants assigned to judge co-partisans.

After participants performed the task, they further completed a survey asking a series of political attitudes questions, which include measures of out-partisan schadenfreude.

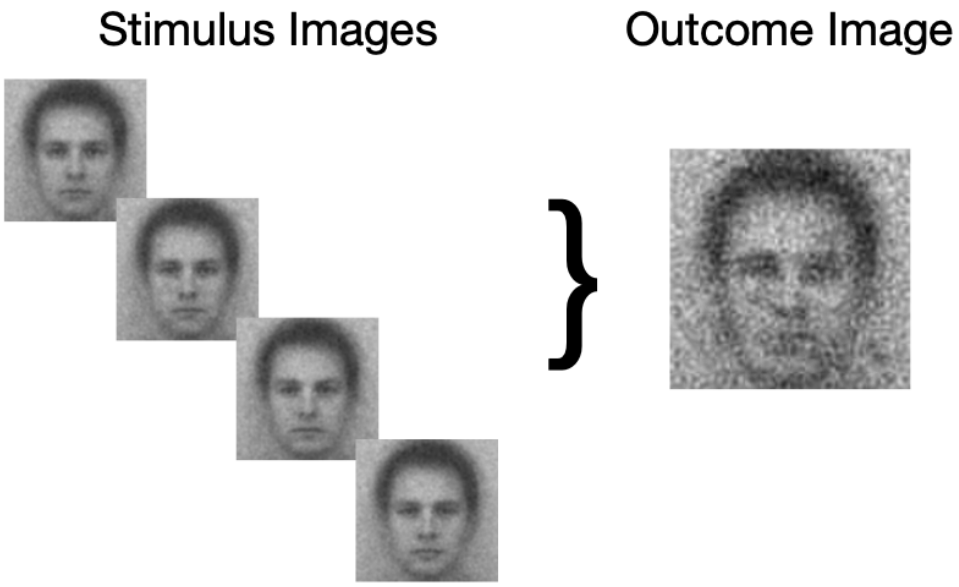

Figure 1.4: Noise-Based Reverse Correlation

1.5.2 Measures

The independent variable of interest is the treatment status whether was assigned to the out-partisan condition ($N = 50$) or co-partisan condition ($N = 55$) when performing the reverse correlation task. The dependent variable of interest is schadenfreude toward out-partisans, which is an average between two questions adapted from Crysel and Webster (2018): "When I see bad things happening to [Republicans/Democrats] on the news media... (1) I cannot resist a little smile. (2) I feel pleasure." each measure on a 7-point scale from 1= Strongly Disagree to 7 = Strongly agree and recoded depending on the participants' personal party identification (e.g. schadenfreude toward Republicans for Democrat participants).

1.5.3 Results

To formally test whether partisans are more likely to support out-partisan schadenfreude when induced to dehumanize out-partisans, a simple linear regression with HC2 robust standard errors is performed on the partisan schadenfreude ratings between the two conditions. The results are marginally significant and provide tentative evidence in the direction of H2. Generating mental images of out-partisans leads to a slight increase in joyful feelings of out-partisans' misery compared to generating mental images of co-partisans: $\beta = 0.546$, 95% CI= $[-0.023, 4.137]$, $p = .06$. Figure 1.5 provides the visualization of the effect.

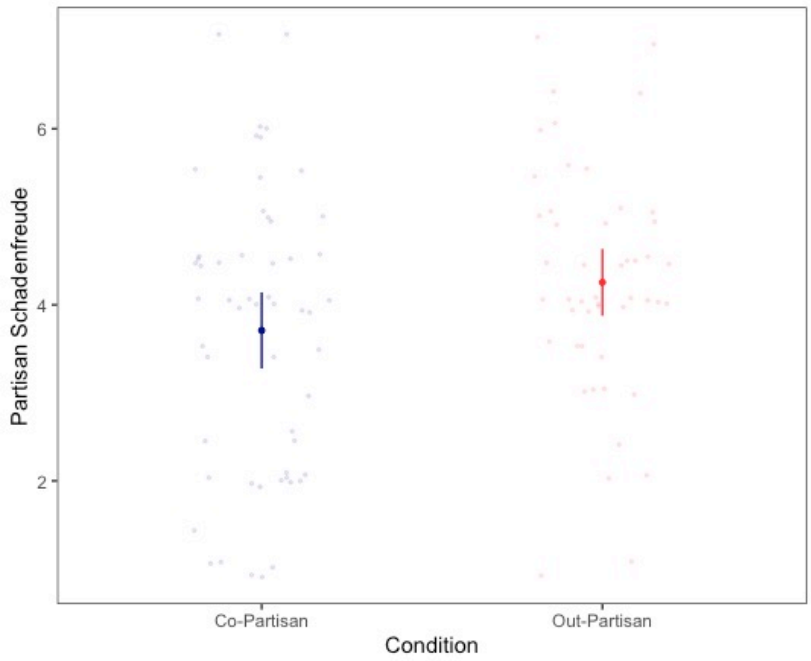

Figure 1.5: Effect of Treatment Conditions on Partisan Schadenfreude

1.6 Discussion

In this part of the dissertation, I argue that partisans develop extreme political attitudes and dehumanizing perceptions toward out-group political members to satisfy a primary desire to obtain happiness and pleasure. Exposing to the ever-complex political environment, political hobbyists would prefer to defend themselves from the negative cognitive costs of processing political information and engaging in politics, and this can be achieved by adopting political extremity and partisan dehumanization. Through two empirical tests, I find suggestive evidence that extreme partisans that think about politics on a daily basis experience higher subjective well-being and happiness, and partisans with induced dehumanizing perceptions toward out-partisans also enjoy more of out-partisans' suffering.

For the diary data, a future expansion could be introducing experimental treatments with this kind of longitudinal design. For example, randomize only half of the respondents being actively reminded of thinking about politics, or directly disseminating different political information randomly each day to see how that affects their attitude and behaviors (Kao 2020). Also, if extreme partisans are experiencing more happiness, then can making them happy in the first place reduce political extremity? While incidental happiness does not seem to reduce affective polarization (Yu et al. 2021), it might be worth exploring if politically-related happiness can on the other hand produce effects, but obviously need to first define this concept clearly. Given how individual-level positivity in politics may translate to aggregate-level negativity

in politics, a potentially fruitful research project can be focused on how to sync the micro-macro political happiness. In addition, the finding here that Republicans exhibit a more concrete relationship between political extremity and happiness echoes how conservatism-related individual correlates of dehumanization (RWA, SDO) should not be overlooked. Given improved designs and measures, perhaps we should reconsider whether both parties really equally dehumanize each other or if there can exist ideological asymmetry as hinted by past findings.

For the experiment, future research can improve on exploring different ways to manipulate dehumanizing perceptions and incorporating more well-validated measures of schadenfreude. Scholars have utilized behavioral games to manipulate affective polarization (Broockman, Kalla, and Westwood 2022), and others use completing the ascent of man scale as a way to induce dehumanized thinking (Bai et al. 2021). Contemplating more creative, innovative, and effective treatments to manipulate dehumanization (with rigorous consideration of research ethics in mind) can allow us to explore a more concrete relationship between quantities of interest.

Lastly, the potential link between dehumanization, happiness, and schadenfreude may provide an alternative view in separating affective polarization and partisan dehumanization. The common emotional responses related to affective polarization tend to be negative ones such as anger (Webster 2020) and anxiety (Albertson and Gadarian 2015), which contributes to partisan animosity. But dehumanization does not always arouse negative emotions, and a sense of antipathy can be all that need to treat out-group members as subhuman beings. If one "learns" to adopt this mental strategy more efficiently, one can avoid the negative drives that come with engaging in affective polarization while simply enjoying the positive mental reward of schadenfreude. This would suggest dehumanization might be the "superior" approach that gives more utilities to extreme partisans when contributing to deepened social cleavages and deserves even more scrutiny for potential amelioration.

Part II

Partisan Dehumanization in Action

"Sometimes a thought is closer to truth, to reality, than an action."
— Young Woman, *I'm Thinking of Ending Things*

2.1 Overview

Given the various related theories and slightly disparate definitions, dehumanization can be a difficult concept to operationalize and measure. Diverse scales and methods used to capture dehumanizing perceptions have been developed and refined by social psychologists throughout the decades, mostly relying on explicit self-reported questionnaires. Building on their respective theoretical underpinnings of dehumanization, Leyens et al. (2000) develop an infrahumanization scale that asks people to assign secondary emotions to targeted groups and Haslam (2006) devises a UH/HN scale which assesses how people attribute these two traits to engage in animalistic or mechanistic dehumanization. Together, these are known as the more *subtle* dehumanization measurements. More recently, urging the importance of refocusing on direct dehumanization in real-world conflicts (Kteily and Bruneau 2017b), Kteily et al. (2015) designed an ascent of man scale that can be used to capture *blatant* dehumanization. Utilizing fMRI techniques, they also found that this particular scale can activate distinct neural correlates that differentiate itself from other attitudinal scales (Bruneau et al. 2018), further substantiating its validity. In addition, there are also studies using more behavioral tools such as IAT to measure dehumanization (e.g. Buckels and Trapnell 2013; Rudman and Mescher 2012) and test the extent to which people intuitively associate dehumanized targets with animalistic constructs.

Nonetheless, within the context of American politics, studies of partisan dehumanization so far have only relied on self-reported survey measures (e.g. Cassese 2019, 2020; Martherus et al. 2019), which captures intentions rather than actual behaviors. In addition, there are several recent studies suggesting that partisan animosity and support for partisan violence can merely be artifacts of the survey environment instead of genuine attitudes (Druckman et al. 2022; Lee et al. 2022; Mernyk et al. 2022; Westwood et al. 2022). If so, would partisan dehumanization also merely be a manifestation of survey instruments instead of a concrete construct? How can we reconcile and justify its existence with improved measurements?

In this part, I propose two methods attempting to measure partisan dehumanization in action. Beyond self-reported attitudes and beyond explicitly using dehumanization-themed survey instruments that could potentially anchor respondents' responses. Study 1 borrows the reverse correlation technique (Dotsch and Todorov 2012) to engineer mental images of dehumanization, and Study 2 utilizes experimental game theory to gauge dehumanization in strategic reasoning (Nagel 1995). In both studies, I first outline the rationale for applying the methods, then use empirical data to test the hypotheses.

2.2 Study 1: Reverse Correlation

2.2.1 Introduction

Social psychologists in recent years have developed a specific method to formulate social perceptions by visually modeling the mental information people used when making categorical judgments, the noise-based reverse correlation technique (Dotsch and Todorov 2012). This method is a data-driven approach that yields people's perceptual proxies of mental representations based on judgments of randomly varying facial stimuli (Brinkman, Todorov, and Dotsch 2017). The uniqueness is that it can visualize people's spontaneous use of the information without hinging upon any a priori hypotheses or instructions; they are free to utilize whatever comes to mind when making judgments.

Reverse correlation has been applied to several studies to understand social classification and intergroup prejudice (Dotsch, Daniël H.J. Wigboldus, and Van Knippenberg 2011; Dotsch, Daniel H.J. Wigboldus, and Van Knippenberg 2013; Dotsch et al. 2008; Ratner et al. 2014; Tskhay and Rule 2015). So far, only a handful of studies have tentatively used it to measure dehumanization (Kunst, Kteily, and Thomsen 2017; Petsko et al. 2020; Petsko and Kteily 2023). The advantage of this procedure is that, unlike explicit measures such as the ascent of man scale with concerns of social desirability bias (Berinsky 1999), reverse correlation can allow us to estimate people's implicit attitudes without specifically requiring them to use uncomfortable or unconventional items to judge a figure. Also, different from other implicit measures such as IAT, reverse correlation allows people to make judgments without being bound to pre-specified attribute dimensions (e.g. associating humans with animals) (Brinkman, Todorov, and Dotsch 2017), hence offering a more natural picture of perceptions.

The standard procedure is to recruit two groups of participants performing different tasks, *generators* and *raters*. First, the generators are shown pairs of neutral facial pictures imposed with random visual noises and asked to judge the face in each pair that most represent the image of a given target group (e.g. Democrat/Republican). After a number of trials, a composite image can be created for each generator by aggregating her choices in each trial, which maps her mental perception of the targeted group on a visible facial image, and this can also be performed at the group level (e.g. a composite image of all Democrat generators). Second, the raters, naive to the generator's tasks and the purpose of the study, can rate the composite images using the ascent of man scale to describe how dehumanized these facial images are. Since they are being asked to judge artificial figures without any informational references, this takes away the concern of social desirability bias. Combining the results from these two tasks, we can behaviorally construct people's mental representation of the out-group members and objectively estimate how dehumanized it is.

In the current study, I attempt to apply this novel method and see whether it can also be used to capture partisan dehumanization. Specifically, I hypothesize that the composite mental image of out-partisans will be rated as more dehumanized than the

composite mental image of co-partisans (**H3**). Given the prevalence of dehumanization across both parties in the United States (Martherus et al. 2019), I suggest that partisans' mental images of co-partisans should be more human-like, and their mental images of out-partisans should be relatively more inhuman. Also, this level of dehumanization should be associated with partisan strength (**H4**). Strongly identified partisans should generate the most dehumanized mental images of out-partisans as compared to weak partisans and leaners.

2.2.2 Methods

The study was conducted in a state-of-the-art lab owned by the political science department at a highly-renowned and fast-growing American university during the Winter of 2019, it consists of two tasks: image generating and image rating.

A total of 123 college students were recruited as generators for the image-generating task. 91 identified themselves as Democrats, 14 as Republicans, and 18 as Independents. Given the partisan nature of the research question, Independent participants were not included in the analyses. Given the rareness of Republican participants that might not be able to produce meaningful images, these participants were not included in the analyses as well. Hence, the test here only focused on the 91 Democrat sample and their mental images toward co-partisans and out-partisans. This sample had 34 leaners, 49 weak partisans, and 8 strong partisans. They first complete a short survey asking their basic demographics, then complete the reverse correlation task, and finally answer some questions about their political attitudes and behaviors

The reverse correlation task consists of 100 trials. In each trial, generators will view a pair of blurry, neutral facial images. In every pair of faces, the base image will be overlaid with random visual noises generated using the `rcicr` package in `R` (Dotsch 2016), and generators were asked to select which of the faces looks more like the target. Of these 91 Democrat generators, 46 were randomly assigned to judge Democrats (co-partisans) and 45 were randomly assigned to judge Republicans (out-partisans). Figure 2.1 demonstrates an example of the experimental procedure.

This reverse correlation image-generating task was written and performed using PsychoPy (Peirce 2007). Notice that the task only requires generators to select the face that looks more like the target; it did not provide any additional information or instruction. Thus, generators relied freely (and only) on whatever criteria in their mind when making the choices in the task. In other words, the outcome of the task is a pure natural fallout of their oblivious reactions without a priori expectations.

Each generator's selections across 100 trials were then aggregated into individual-level composite images, and these images were then further aggregated into group-level composite images. Specifically, five group-level composite images were generated and used in the image rating task: the composite images of all Democrats toward both co-partisan and out-partisan targets; and the composite images of leaners, weak, and strong Democrats toward out-partisan. The test focuses on analyzing group-level composite images in order to make the following rating task easier and prevent

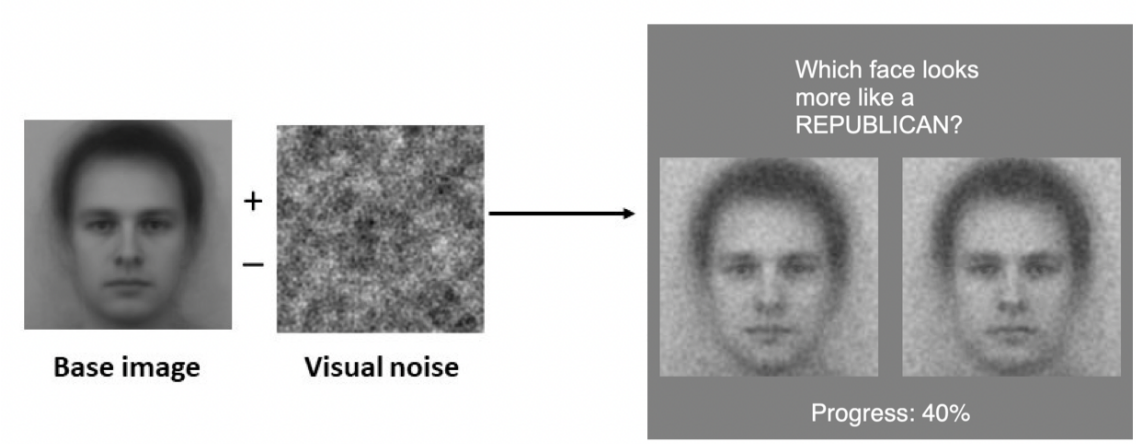

Figure 2.1: Reverse Correlation Image Generating Task

unwanted noises (i.e. each rater rates 5 group-level images instead of 91 individual-level images).

A total of 145 college students were recruited as raters for the image rating task. Each rater was asked to rate the five composite images displayed in random orders using the ascent of man scale ranging from 0 (least human-like) to 100 (most human-like), Figure 2.2 gives an example of the question. Raters were completely unaware of the research question and the purpose of the study, and they also didn't know how the images were generated in the first place. Screening was conducted to ensure no students can participate in both image generating and image rating tasks. In the following analyses, the dependent variable of interest is the blatant dehumanization rating on each group-level composite image, and the independent variable is the experimental condition for H3 and the categories of generators' partisan strength for H4.

2.2.3 Results

Figure 2.3 displays the composite images of all Democrat generators toward co-partisan and out-partisan targets. As can be clearly seen, visually speaking, the mental representation of fellow Democrats in the mind of Democrat generators is quite normal and pleasant. However, when thinking about the out-party Republicans, the mental image that emerges becomes a lot more negative and hostile, with certain facial features distorted to some degree.

To formally test whether the above two images are indeed perceived differently, a simple linear regression with HC2 robust standard errors is performed on raters' dehumanization ratings between the two conditions. Confirming H3, the mental image of Republicans is indeed statistically less human than the mental image of Democrats on the ascent of man scale: $\beta = -12.70$, 95% CI= $[-17.69, -7.72]$, $p < .001$. Figure 2.4 provides the visualization of the effect.

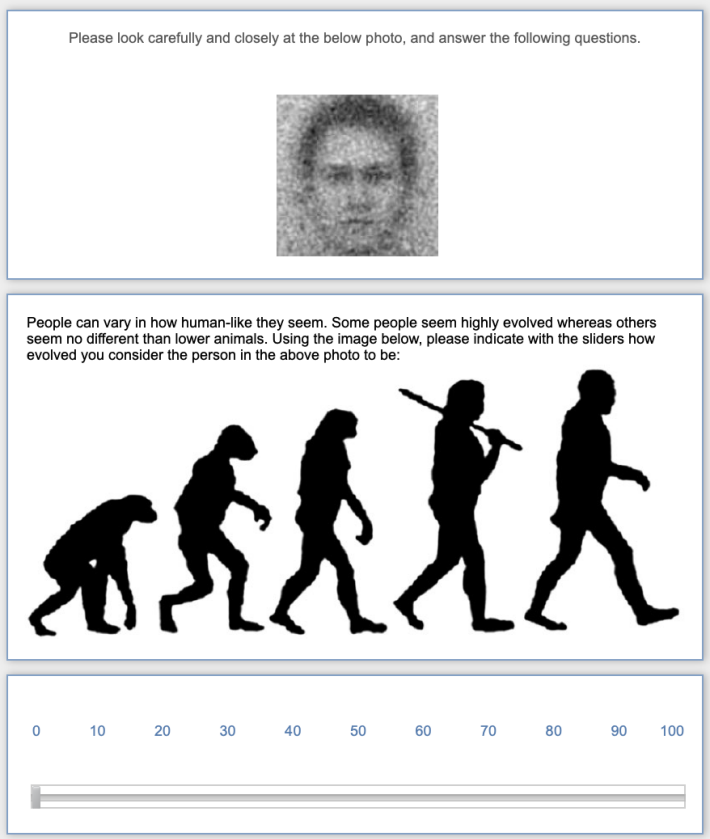

Figure 2.2: Group-Level Composite Image Rating Task

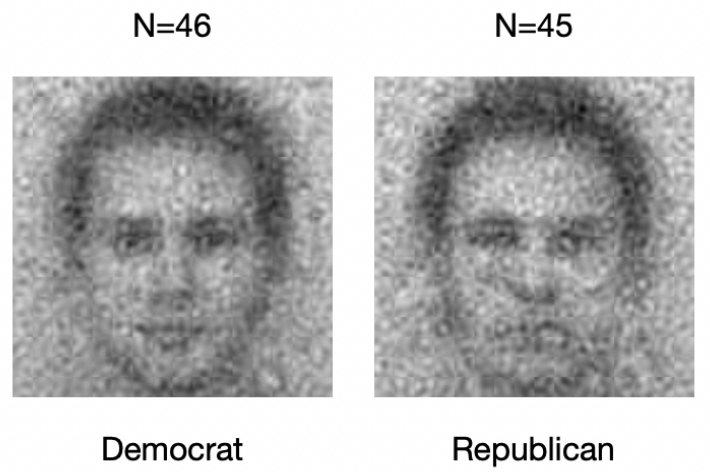

Figure 2.3: Democrat Generators' Composite Images of Co-partisan (*left*) and Out-partisan (*right*)

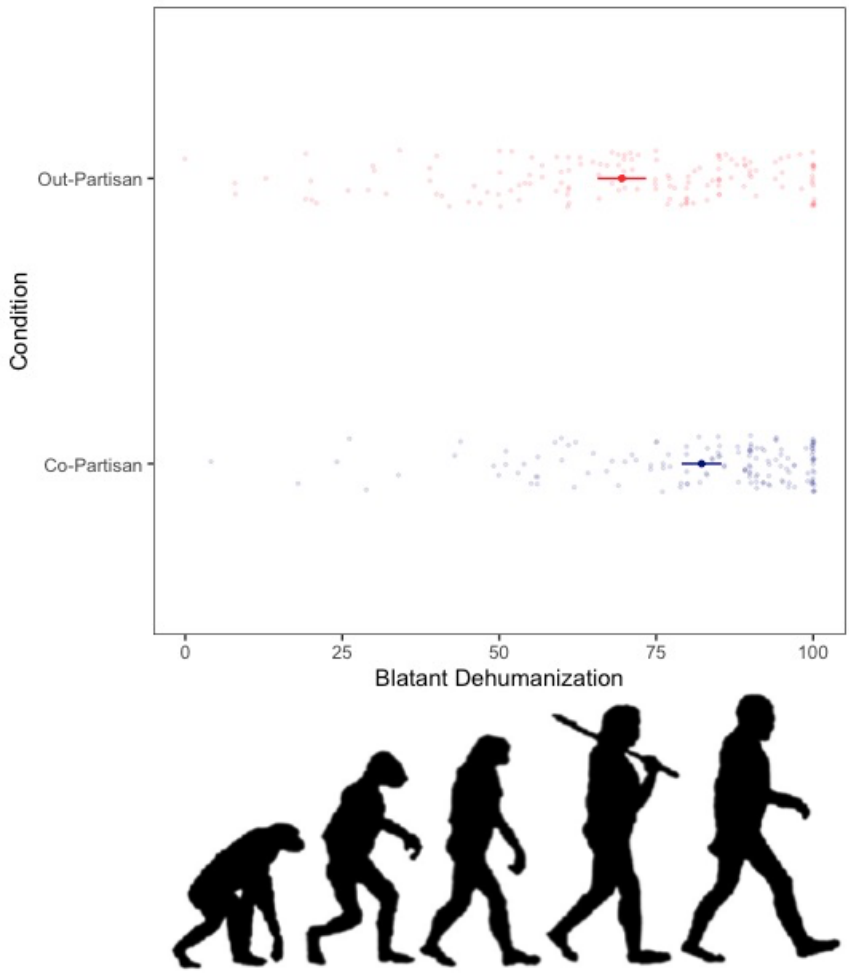

Figure 2.4: Ratings of Democrat Generator's Composite Images

Moving to H2, Figure 2.5 displays the composite images of leaner, weak, and strong Democrat generators toward Republican targets. Visually speaking, the three images appear to be quite similar. Results from a one-way ANOVA also suggest that there are no significant differences in the dehumanization rating across partisan strength ($F(2,428) = 0.441, p = .64$), failing to provide support for H4.

I also test whether the effect I found in support of H3 can be moderated by the partisan strength of the Democrat generators by regressing raters' dehumanization ratings on the co-partisan/out-partisan conditions interacted with partisan strength. However, none of the interaction terms are significant, but the main effect of out-partisan conditions remains: $\beta = -10.92$, 95% CI= $[-15.90, -5.94]$, $p < .001$.

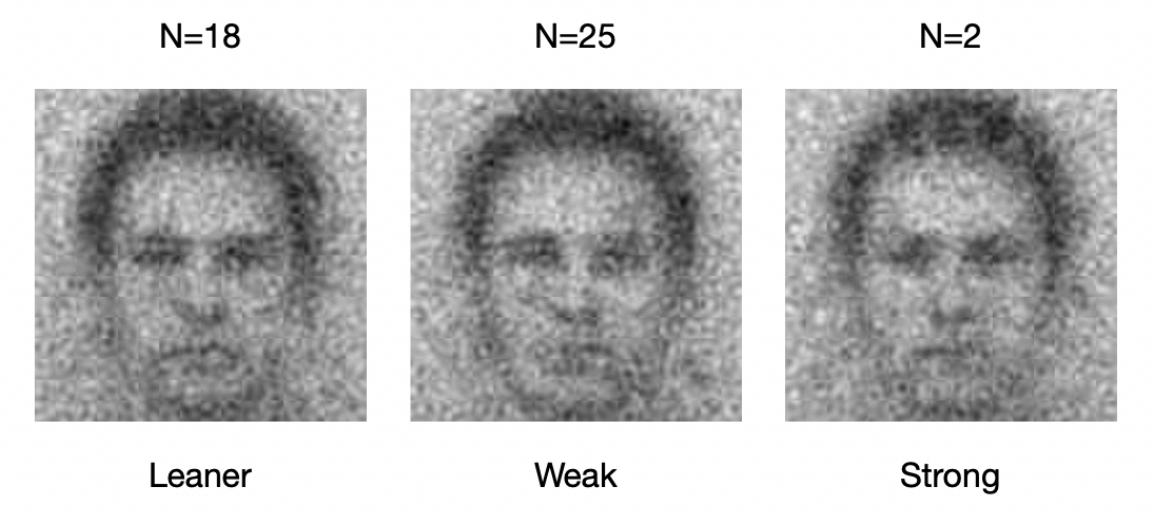

Figure 2.5: Lean, Weak, and Strong Democrat Generators' Composite Images of Out-partisan

2.2.4 Discussion

Utilizing the reverse correlation technique, the data collected here provide initial support that, at least for Democrats, the mental representation of out-party members is indeed more dehumanized as compared to that of the co-party members. However, there is no evidence indicating stronger Democrats generate more dehumanizing perceptions toward Republicans. The drawback may be due to the small sample size and the rarity of strong partisans; hence the composite images may only contain insufficient information. One limitation of this reverse correlation technique is whether the noisier images generated toward the out-group really represent dehumanization. Perhaps a validation task can be done during the image-generating stage to first ask respondents to pick faces that don't look like humans and see if the outcome image of this task corresponds to the outcome image of out-groups.

For future study, expansion can be done by collecting more partisan generators, especially Republicans, to improve the quality of composite images and corroborate that partisan dehumanization exists on both sides. Increasing the number of trials in the image-generating task can also lead to composite images with better informational value. While the standard procedure recommends 300 to 500 trials (Brinkman et al. 2019), the current paper only contains 100 trials. Also, instead of merely analyzing group-level composite images, finding ways to generate individual-level image ratings can reveal a lot more interesting patterns to further test the hypotheses and corroborate the arguments. Lastly, moving from lab experiments to an online setting can collect more diverse samples, but given the repetitive and cumbersome nature of the tasks, this could also induce a lot more unwanted noises that need to be carefully dealt with and requires an even greater sample size to reach precision.

2.3 Study 2: Strategic Reasoning

2.3.1 Introduction

Aside from blatantly describing out-group members as animals or subhuman creatures (Hodson, Kteily, and Hoffarth 2014), another important feature of everyday dehumanization is the more subtle form of denying others' human essence and failing to perceive their humanity (Harris 2017; Leyens et al. 2000). That is, treating others as something that is unable to possess and perform human-unique cognitive competence such as rational reasoning and higher-order thinking (Epley and Waytz 2010; Lasana T. Harris and Fiske 2006; Lasanna T. Harris and Fiske 2011). Depriving others of their humanness blurs the distinction from "us and them" to "us and something else," which can further remove the psychological barrier preventing people from engaging in discriminative and violent behaviors (D. L. Smith 2011, 2020).

Behavioral game theory provides insights into human beings' rationality and sophistication. While classical game theory assumes players possess full rationality in strategic interactions, research has found that in one-shot games, Nash equilibrium predictions are less capable of explaining players' behaviors in real-world settings (Goeree and Holt 2001). Instead, the level-k model of limited strategic reasoning (Crawford, Costa-Gomes, and Iriberri 2013; Nagel 1995) can be far more superior and plausible. Level-k thinking represents the extent to which individuals engage in mentalizing processes, or "theory of mind" (Baron-Cohen 1991), by recognizing that people vary in their innate level of sophistication and cognitive abilities to generate beliefs about their opponents' strategies. Typically in behavioral games, level-0 players are the ones with the least evolved strategic thinking style, and level-1 players possess higher skills and best respond to level-0 and so on, such that level-k+1 best responds to level-k. This ability to "reasoning about others' reasoning" is often partially determined by one's intrinsic cognitive bounds (Alaoui, Janezic, and Penta 2020).

Nonetheless, studies have also discovered that people engage in strategic reasoning not just due to their innate cognitive abilities but also depending on their "perception" of others. When people believe that they are facing a more sophisticated opponent, this induces them to engage in higher-level reasoning and think more steps ahead (Alaoui and Penta 2016; Agranov et al. 2012; Georganas, Healy, and Weber 2015; Palacios-Huerta and Volij 2009). Conversely, when they believe their opponent is less capable of engaging in higher-order reasoning, they tend to "think less" as well. Admittedly, this suggests the possibility that we can utilize players' tendency to manifest strategic thinking in behavioral games as an implicit indicator of stereotypical or prejudicial perceptions. For example, Cubel and Sanchez-Pages (2017) utilize a p-beauty contest game to examine gender stereotypes in strategic thinking and find that females are likely to engage in more rounds of reasoning when being primed that their opponents are females as well.

In this study, I argue that people's tendency to engage in strategic reasoning can be used as a novel behavioral measure for partisan dehumanization. Specifically, treating the opponent as a level-0 player and selecting level-1 strategy in response equates to the idea of perceiving that the opponent only possesses subhuman-level ability to engage

in evolved cognitive thinking. If we inform players of their opponents' information and observe their level-k thinking in games, we can estimate whether the provided cues induce them to form dehumanizing perceptions and act accordingly. Hence, I hypothesize that partisans are more likely to be level-1 players (treating the opponent as level-0) when they are facing an out-partisan opponent as compared to a co-partisan opponent (**H5**). Also, this level of dehumanization in strategic reasoning should be associated with partisan strength (**H6**). Strongly identified partisans will be even more likely to perceive an out-partisan opponent as a mindless level-0 player than leaners or weak partisans. To test these hypotheses, I conducted a survey experiment with an online convenience sample and collected empirical data.

2.3.2 Methods

The study was conducted during the Spring of 2020. An online convenience sample was acquired from Prolific.co, a crowdsourcing platform with a higher-quality subject pool as compared to Amazon's Mechanical Turk (Palan and Schitter 2018). A total of 603 participants were recruited for participating in the study. Given the partisan nature of the research question, 11 Independents were excluded from the analyses, which drops the number of observations to 592 with 297 self-identified Democrats and 295 self-identified Republicans. Screening was conducted to ensure participants are over 18 years old, currently reside in the United States, and possess at least a 95% approval rating. This sample has 318 males and 274 females; 470 White, 62 Asian, 20 Black, 25 Latino, and 15 other-identified race; 55.5% of the participants have at least achieved a college degree; and the age groups are relatively younger with 75% of them under 45 years old.

Participants played an 11-20 game (Arad and Rubinstein 2012). The basic form of the game works as follows: players are matched with an opponent and presented with a series of numbers ranging from 11 to 20. They can request an amount between 11 and 20 and receive the amount as credits that will transfer into monetary payoffs. Also, they can receive an additional bonus x ($x \geq 20$) if they request exactly 1 less than their opponent. Hence, although requesting 20 seems to be the maximum payoff, requesting less than 20 could give you an even better payoff depending on the choices of the opponent. This game is designed to elicit level-k reasoning, and compared to similar games like the p-beauty contest, it is more straightforward and easier for players to comprehend. It also has a unique advantage such that choosing 19 is always a robust level-1 play. Regardless of defining level-0 play as choosing 20 or randomly choosing from the uniform distribution over the choice space, choosing 19 always best respond to any of them (Alaoui, Janezic, and Penta 2020). Since the goal of this study is to identify whether partisans are more likely to treat the out-partisan opponent as a level-0 player and respond with level-1 play, this game provides a direct setup to gauge such perceptions.

Participants were first surveyed on their basic demographic background. Next, they received a brief introduction to the game alongside vivid visual illustrations. Following

this, participants were asked to complete and pass a short quiz to make sure they have a precise understanding of how to play the game. Afterward, they were told that they would play a practice round against a computer opponent that will randomly select any of the possible choices (mimicking a level-0 play). The purpose of this practice round is to let the participants be more familiar with the game, also allowing me to estimate their innate depth of reasoning yet to be affected by any experimental treatments.

Finally, participants were told that they will be playing the game against a real opponent also in the study and that they will receive some basic information about this opponent. A demographic table was presented to them with six attributes: sex, age, race, education, income, and political party. The values for the first five attributes were fixed to be male, 35-44, White, some college, and $50000-$74999 for everyone. Political party is the treatment attribute such that half of the participants were randomly assigned to see Democrat and half to see Republican. Figure 2.6 provides an example of the table and the question. Treatment was block-randomized on participants' own partisanship to ensure conditions were balanced, resulting in 295 facing a co-partisan opponent and 297 facing an out-partisan opponent.

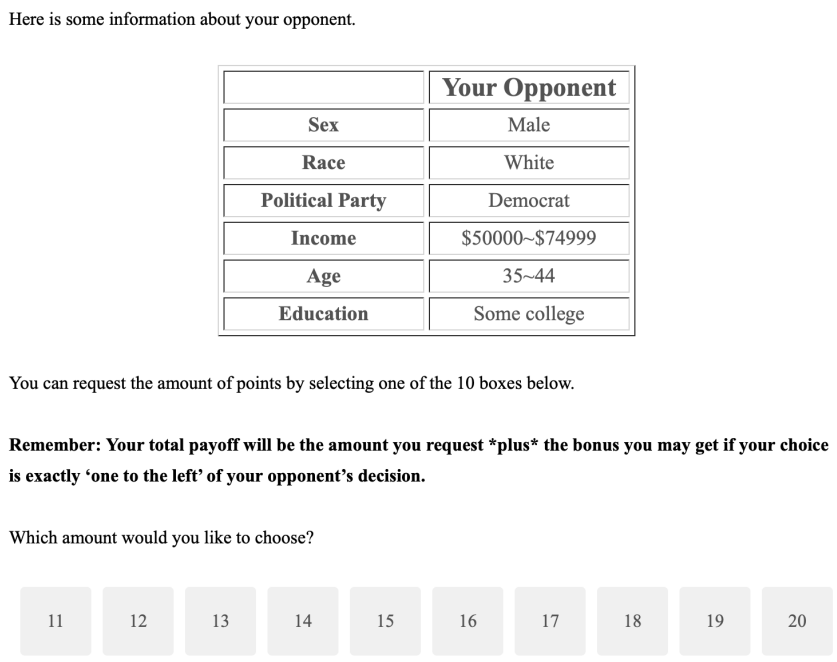

Figure 2.6: The 11-20 Game with Opponent's Information

In the following analyses, the dependent variable of interest is a dichotomous indicator of whether the participant chooses 19 (level-1 play), and the independent variable is the co-partisan/out-partisan conditions for H5. For H6, I examine whether heterogeneous treatment effects exist across participants' partisan strength. Since the tendency to engage in strategic reasoning can also be affected by people's cognitive bounds and personal characteristics, I created a dichotomous variable from

participants' choices in the practice round so that those who chose 19 (knowing how to respond to random level-0 play) were categorized as possessing higher cognitive abilities. Other than controlling for this variable, I also include participants' sex, age, race, education, income, and political party as covariates in alternative specifications to improve precision.

2.3.3 Results

Figure 2.7 first displays the overall distribution of choices in the 11-20 game for all participants in the two treatment groups. Visually speaking, the two distributions seem quite similar. Albeit there is a slight increase in level-1 play and a slight decrease in level-2 play when they are facing an out-partisan opponent, the differences appear to be rather small. Indeed, according to a chi-square test the two distributions are not significantly different from each other ($p = .62$)

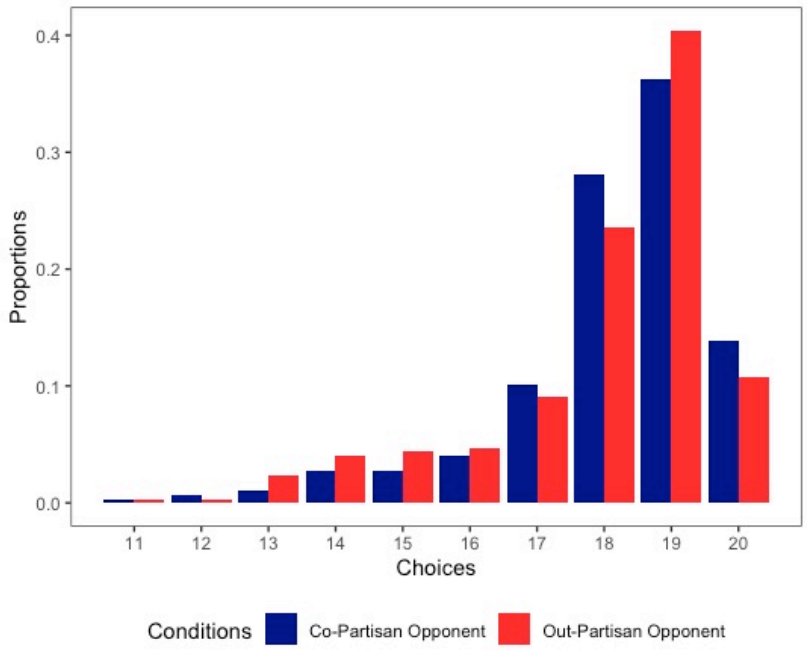

Figure 2.7: Distribution of Choices in the 11-20 Game under Experimental Conditions

A simple linear regression with HC2 robust standard errors is performed to estimate the effect of out-partisan opponent on being a level-1 player (choosing 19). Figure 2.8 plots the coefficient estimates. Looking at the entire sample (All Partisans), the effect is not statistically significant at the conventional levels, even after controlling for all covariates, failing to support H5. Only when focusing on the strong partisan sample, there is a weak effect significant at the 90% confidence level. Strong partisans are about 10% more likely to be level-1 players when facing an out-partisan opponent. This result holds even after controlling for all covariates, which provides partial evidence for H6.

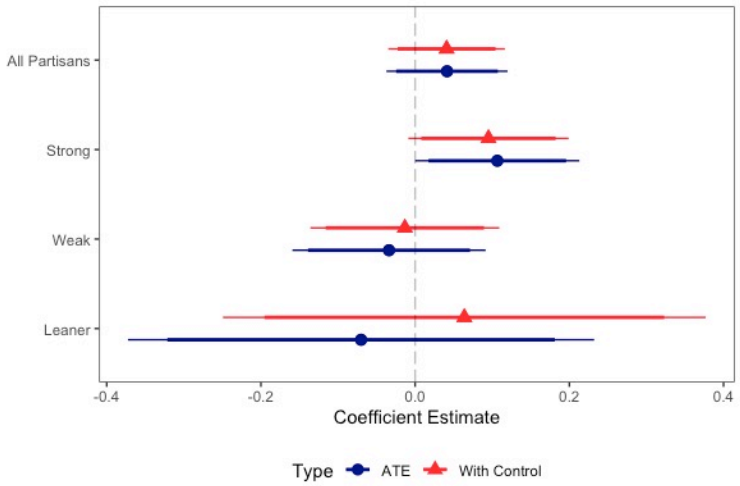

Figure 2.8: Effect of Out-partisan Opponent on Level-1 Play Surrounded by 90% and 95% CIs.

Finally, to check if the effect detected among strong partisans is driven by any specific party, Figure 2.9 plots the distribution of choices for strong partisans in both parties. As can be seen, while there are more strong Democrats choosing 19 when facing the out-partisan opponent, the general pattern of distributions for both parties are still quite similar to one another, suggesting the effect can be symmetrical.

2.3.4 Discussion

Findings from the pilot study here indicate that not all partisans dehumanize the out-partisan opponent when playing the 11-20 game, only those with the strongest and most extreme partisan identification. Nonetheless, the effects are still weak and marginal. Further analysis can perhaps be performed on ensuring whether choosing 19 really represents dehumanization, or if there are other ways to more accurately reflect the level-1 strategy.

For future research, expansion can be done by utilizing the results here to pre-register the official study and perform power analyses to collect enough sample size and check whether the effects observed here are robust. Experimental treatment can also be improved; while I'm holding the demographics of the opponent in the game constant to be a young White male that is commonly present within both parties, this may still elicit unwanted emotions or feelings that could introduce noises into the design. Free-response questions can be added to the survey to ask participants their opinions toward the opponent, the game itself, and thought processes when making the choices in game. A more thorough investigation into whether perceiving others as less capable of engaging in higher-order reasoning really maps onto the concept of dehumanization should also be considered to ascertain the theoretical linkage.

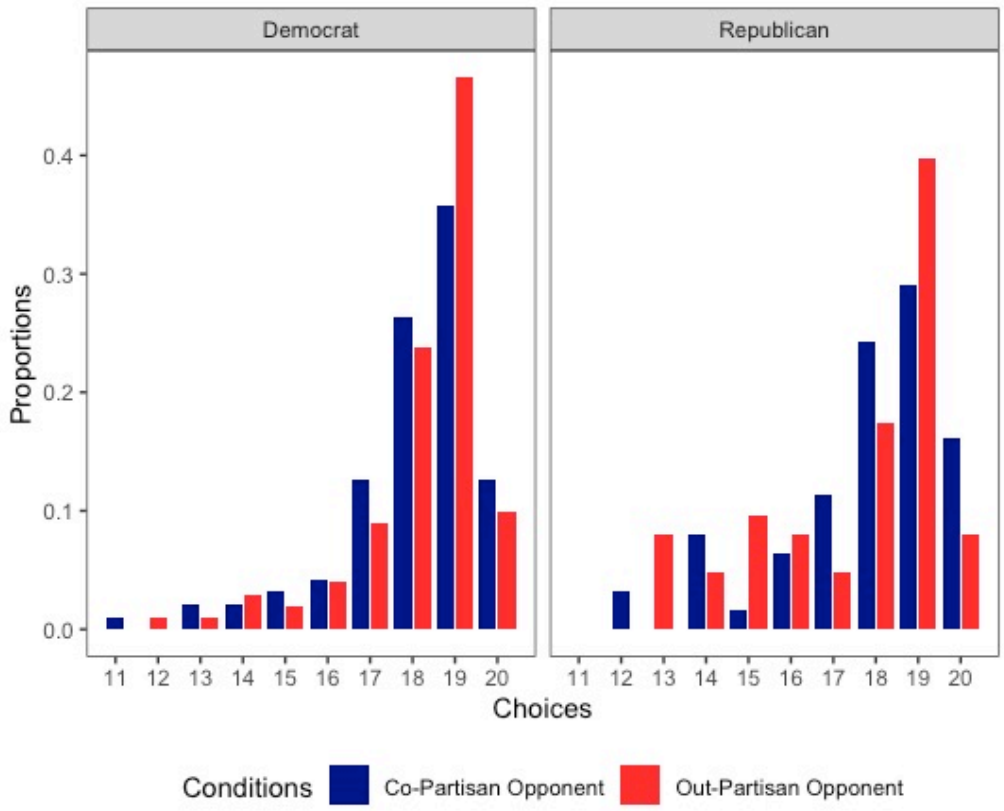

Figure 2.9: Distribution of Choices in the 11-20 Game for Strong Partisans in Both Parties

Part III

The Spatial Dependence of Partisan Dehumanization

"We do not know why we are here. We do not know who built the Silo. We do not know why everything outside the Silo is as it is. We do not know when it will be safe to go outside. We only know that day is not this day."

— Sheriff Holston, *Silo*

3.1 Partisan Segregation as the Contextual Underpinning

As argued in the first part of this dissertation, an intrinsic desire to maintain positivity and happiness when navigating through politics can motivate partisans to engage in partisan dehumanization. However, dispositional traits don't solely dominate political behaviors and attitudes just as situational factors alone can't account for all the variations, it is the consideration of both that can give us a fuller understanding (Hibbing 2011). Thus, in this part, I seek to provide a contextual explanation for the occurrence of American partisan dehumanization at the state level through the lens of partisan sorting and segregation.

Dehumanization happens when we consider members of the target groups as something "beneath" human (D. L. Smith 2020), and this happens at the attitudinal level inside people's heads. When they think about these out-group members, the biased misperceptions that come to mind can often strengthen dehumanizing attitudes (Kteily, Hodson, and Bruneau 2016). Indeed, partisans in the United States tend to have a very inaccurate image of out-partisans while overestimating the share of party-stereotypical groups (Ahler 2014; Ahler and Sood 2018), and this further fuels affective polarization (Lees and Cikara 2020).

Nonetheless, correcting misperceptions about out-groups has proven to be a useful tactic in reducing out-group animosity and dehumanization. Druckman et al. (2022) find that partisan animus falls sharply when given the correct information about the other party and Landry et al. (2023) find that reducing the exaggerated degree of partisans' meta-dehumanization can in turn reduce their own dehumanization of out-partisans. Instead of imagining out-groups with biased images and making them into monsters (D. L. Smith 2021), being reminded of our shared humanity can overcome the formation of dehumanizing perceptions (Waytz 2019). That is, in the most literal sense, "seeing" out-groups as humans and engaging in intergroup contact can effectively reduce dehumanization (Bruneau et al. 2021).

While this sounds like a promising strategy that works well in engineered environments such as experiments since all we need to do is provide opportunities for people from both parties to see and talk to each other casually. In reality, it might be difficult to achieve. For one, people nowadays tend to interact with others and engage in politics via the internet and social media (Berry and Sobieraj 2013), and the nature of the selective exposure and echo chambers on these platforms can lead to biased consumption of partisan information (Bakshy, Messing, and Adamic 2015; Lelkes, Sood, and Iyengar 2017; Settle 2018) and prevent out-party misperceptions

from being corrected. Secondly, a more fundamental reason it is actually difficult for partisans living in the United States to physically interact with out-partisans given the extensive partisan segregation (Brown and Enos 2021).

The social-geographical context where people live can have a profound impact on their political attitudes and behaviors (Enos 2017). Residential segregation, the separation of groups in geographic space, is correlated with intergroup behaviors and attitudes (Allport 1954; Enos and Gidron 2016). As the level of segregation increases, members of different groups tend to have more discriminatory and biased attitudes toward each other while strengthening the in-group identity (Enos and Celaya 2018). In the context of the United States, segregation is mostly based on different racial and ethnic groups. Through simulations, Schelling (1971) finds that most people are prone to segregate themselves from agents of a different race over time which in turn contributes to racially segregated cities. Segregation reduces the probability of intergroup contact and the willingness to cooperate between different groups, increases negative intergroup attitudes and the potential of conflicts, and ultimately leads more segregated cities to be more politically polarized (Trounstine 2016, 2018). Utilizing carefully designed laboratory, field, and natural experiments, the causal mechanisms linking segregation to the variation in political attitudes and behaviors are evidently demonstrated by Enos (2017).

In addition, beyond the common segregation based on socio-economic demographics, scholars have also confirmed that partisan segregation between Democrats and Republicans does exist in the contemporary United States (Brown and Enos 2021). Evidently, a large proportion of partisans live in residential environments with practically zero exposure to out-partisans, thereby diminishing the possibility of daily and casual inter-party contact. We know that intergroup contacts don't always lead to positive improvements. As illustrated by Allport (1954), equal status, common goals, and cooperation are among the key factors promoting the positive effect of intergroup contact. Sometimes it can worsen the outcome, for example, increased cross-strait relations between Taiwanese and Chinese people were not enough to foster greater trust and cooperation (Wu 2017) and only lead to drifting apart between the two countries instead of further integration (Meng 2016). Sometimes it can lead to more cohesion, such as Christians and Muslims under a friendly and cooperative context (Mousa 2020). Here I argue that residential encounters can be considered a positive catalyst to reduce dehumanizing perceptions for two reasons. First, residential encounters do not include any competitive elements, and instead living in the same community can generate a common sense of belonging. Studies also show that cross-ethnic living conditions can have a lasting impact on one's political attitudes toward outgroups (Brown et al. 2021; Enos 2016). Second, unique to dehumanization, while contacts may not necessarily lead to ameliorated intergroup attitudes, merely the act of witnessing out-group should still diminish dehumanizing thinking. Dehumanization occurs when thinking of others as something less than fully human, and seeing others in the flesh can be one of the most direct ways of humanizing and reminding the similarity of our shared humanity (Waytz 2019).

Hence, given the prevalence of partisan segregation, without these face-to-face interaction instances that may restore partisans' perceptions of shared humanity and see out-partisans as actual humans, this generates a straightforward empirical hypothesis:

H7: *Geographical area with higher levels of partisan segregation is associated with greater partisan dehumanization.*

Given the data availability, the geographical area I look at for this part would be the 51 U.S. states (including the District of Columbia). By unifying a nationally representative survey with measures of partisan dehumanization and state-level partisan segregation data in combination with a statistical method to improve the accuracy of attitudinal estimates, we can examine whether states with higher average partisan dehumanization can also be characterized by higher levels of partisan segregation for both Democrats and Republicans.

3.2 Data & Methods

To test this hypothesis, I use two primary data sources. The first is a module of the 2018 Cooperative Congressional Election Study (CCES) fielded by YouGov, and the sample is representative of U.S. national adults and contains observations from all 51 states (ranging from 1 respondent in DC and 163 respondents in California). After filtering to partisans (including leaners) only, the sample size is 1380 (771 Democrats, 609 Republicans). This survey contains the ascent of man scale (Kteily et al. 2015) that asked respondents to judge Democrats and Republicans (0-100), and the partisan dehumanization measure is constructed by taking the difference between ratings for in-party and out-party (e.g. for Democrat respondents, this variable is calculated by subtracting their rating on the ascent of man scale for Democrats from their rating for Republicans). This variable has a theoretical range from -100 to 100 with values greater than 0 indicating the existence of partisan dehumanization, and is further averaged for each state. In this CCES data, the state-level average partisan dehumanization ranges from 14.3 to 80.5 with a mean of 36.5 (SD = 12.5). As we can see, given values are greater than zero for all states, this indicates at least from this set of respondents the existence of partisan dehumanization is spatially prevalent.

The second is the replication data of Brown and Enos (2021),[4] which contains measures of partisan segregation at a variety of geographic units, including states, core-based statistical areas, counties, cities, zip codes, and tracts. Since the CCES data does not have enough sample size to cover finer geographical areas, I'm using measures summarized at the state level for the empirical analysis. The two key measures I'm using here are the average spatial exposure of Democrats to Republican neighbors and the average spatial exposure of Republicans to Democrat neighbors (both excluding same-

4. Data Source: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/A40X5L

household neighbors). Spatial exposure ranges from 0 (zero exposure to out-party) to 1 (complete exposure to out-party), and it practically represents the percentage of interactions in a partisan's residential context to be with an out-partisan. Democrats' spatial exposure to Republican neighbors ranges from 0.06 to 0.63 with a mean of 0.37 ($SD = 0.1$), and Republicans' spatial exposure to Democrat neighbors ranges from 0.19 to 0.85 with a mean of 0.4 ($SD = 0.11$).

However, a conundrum of the analysis here is the lack of data availability for how pervasive partisan dehumanization really is. While the CCES data is fielded among nationally representative U.S. adults, there are some states with only a handful of observations due to the sample size being not large enough. Given the sensitive nature of the ascent of man scale, most large-scale longitudinal surveys such as American National Election Studies (ANES) are hesitant to include this measure, and replication data from other studies using this measure don't always provide the necessary geographical information. Hence, endeavoring to gather a more accurate comprehension of the relationship between variables of interest, I utilize the statistical modeling of multilevel regression with poststratification (MRP) to obtain predictive estimates of state-level partisan dehumanization and use it for the analysis that follows.

MRP takes national-level survey data to perform small-area estimation (e.g. state-level) of attitudes and behaviors and has been used by political scientists in a variety of contexts (Kuriwaki et al. 2023; Lax and Phillips 2009; Park, Gelman, and Bafumi 2004). The process begins with building a random effect multilevel model using individual-level and state-level predictors, then poststratify the predictive estimates with population-level data to obtain the weighted estimate for each demographic-geographic respondent type. For this study, I included three individual-level basic demographic predictors: age (18–34, 35–44, 45–64, 65+), sex (male, female), and education (high school or less, some college, bachelor's degree, postgraduate degree); and one state-level predictor: the presidential vote share for Donald Trump in the 2016 election given its correlation with dehumanization (Jardina and Piston 2021). For poststratification, I used U.S. Census Bureau's 2013–2017 five-year American Community Survey (ACS) data. Estimation is conducted using the `lme4` package in `R`, and the resulting predictive estimates of partisan dehumanization range from 16.3 to 73.1 with a mean of 37.3 ($SD = 11.1$).

3.3 Results

Figure 3.1 first shows a descriptive pattern of predicted partisan dehumanization for each state to visualize geographical differences and similarities. As can be seen, while the results definitely varies by states, the estimated values for all states are above zero, which indicates a consistent spatial pattern of partisan dehumanization.

Table 3.1 demonstrates the results of OLS regression models estimating the relationship between partisan dehumanization and partisan segregation measured in two ways. For Model 1, there is no significant association between Democrats' exposure to Republican neighbors and partisan dehumanization. For Model 2 however,

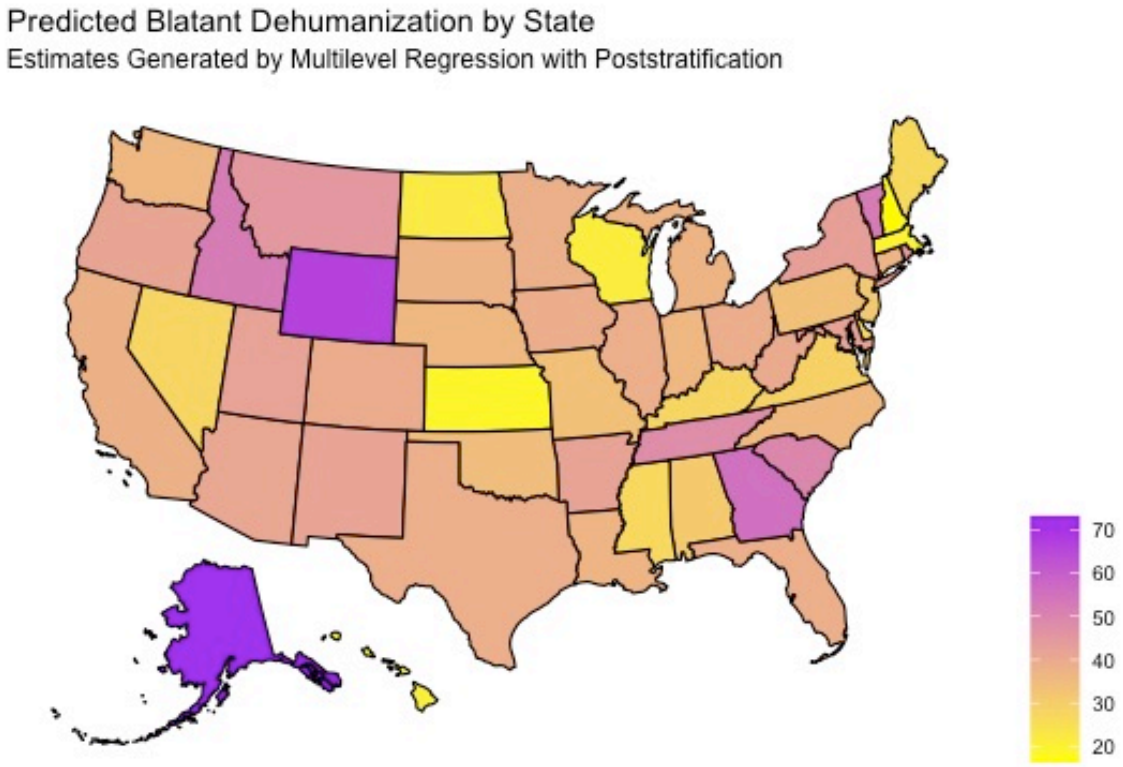

Figure 3.1: Predicted Blatant Dehumanization by State

the relationship between Republicans' exposure to Democrat neighbors and partisan dehumanization is marginally significant (p = .07). Since higher values of spatial exposure mean increased likelihoods of out-party interactions, the results here indicate that for Republicans, moving from a state of complete segregation to a state of no segregation would reduce the amount of partisan dehumanization by about 26 units. Thus, at least among Republicans, this offer tangential evidence in support of H7. Figure 3.2 visualizes this effect.

Table 3.1: Relationships between Partisan Dehumanization and Partisan Segregation

	Dependent variable: Partisan Dehumanization	
	Model 1	Model 2
Spatial Exposure of Democrats to Republican Neighbors	12.735	
	(15.839)	
Spatial Exposure of Republicans to Democrat Neighbors		-26.026^{*}
		(13.856)
Constant	32.608^{***}	47.658^{***}
	(6.095)	(5.694)
Observations	51	51
R^2	0.013	0.067
F Statistic	0.647 (1;49)	3.528^{*} (1;49)
Note: Huber-White robust standard errors in parentheses.	*p<0.1; **p<0.05; ***p<0.01	

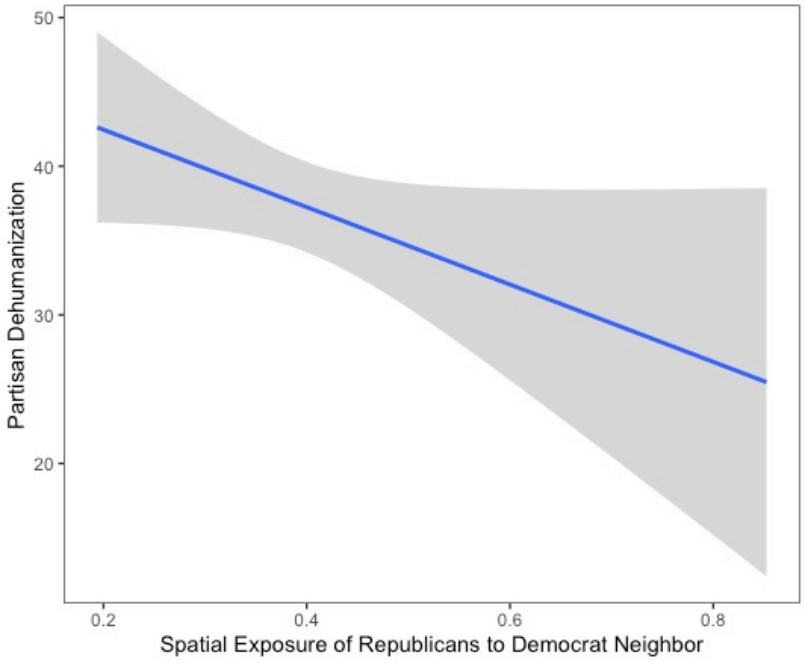

Figure 3.2: Relationship between Partisan Dehumanization and Spatial Exposure of Republicans to Democrat Neighbors

3.4 Discussion

A potential solution to the rising partisan dehumanization can be achieved by correcting misperceptions about out-partisans and increasing inter-party contact. Nonetheless, in the United States, this could be inhibited by the extensive partisan segregation in residential environments. This part attempted to find out whether there are indeed relationships between partisan dehumanization and partisan segregation at the state level and finds weak evidence in support of such expectations. While limited by data availability, the results here still propose a possible pattern of the geographic dependence of dehumanizing attitudes. A potential concern for the current results is the lack of controlling state-level confounders. For example, differences in rural-urban areas or residential communities/buildings structures can both serve as alternative explanations. More focus should be spent on ensuring the relationship between segregation and dehumanization is robust.

Future research can expand on testing this hypothesis with higher-quality data. The limited sample size of data at hand that contains measures of dehumanization can result in inaccurate estimations even with MRP, and the lack of more large-scale data that can serve as benchmarks makes calibrating MRP predictions difficult. An alternative might be to perform the same analysis with the feeling thermometer measure of affective polarization, which is empirically correlated with partisan dehumanization and is commonly asked in most surveys. Using this as a proxy for partisan dehumanization and with a large enough dataset that contains finer geographic information, we can likely even explore whether such a relationship exists at the county or congressional district level, as examining this at smaller geographic units can provide a stronger basis for inference.

A follow-up question for the interpretation of the current results would be how best to overcome the obstacle of partisan segregation. If increasing everyday exposure to out-partisan can reduce partisan dehumanization, perhaps we can investigate how best to design interventions that can persuade people to meet with out-partisans (e.g. larger community gatherings where there might be more diverse partisan neighbors). Adjusting biased perceptions at a more grassroots level might aggregate to less polarization and dehumanization on the national landscape, ideally smoothing out the political chasms that are breaking apart this country.

Lastly, albeit marginal, the findings that only Republicans' exposure to Democrat neighbors varies with dehumanization echoes the findings in the first part of this dissertation, and once again highlights the future need to investigate and theorize the partisan asymmetry in partisan dehumanization.

3.5 Conclusion

This dissertation aims to offer new insights into the emerging partisan dehumanization in the United States, a potentially critical and timely topic in the current hyperpolarized political climate. By exploring the psychological, behavioral, and situational factors

associated with this phenomenon, this dissertation contributes to broadening our understanding of the complexities surrounding these inhuman partisans.

The first part explores the individual motivation to engage in partisan dehumanization. Building on dehumanization as a distinct construct compared to prejudice or discrimination, I offer a parsimonious explanation that partisans simply dehumanize out-partisans to make themselves happy. To navigate the complicated nature of politics, adopting political extremity and partisan dehumanization can serve as a mentally economic tool to obtain utilities to remain interested in politics. The second part provides two behavioral measures alleviating the concerns of partisan dehumanization being exaggerated by the survey environment and questionnaire design, and shows how dehumanizing perceptions can be captured in action by these different techniques. The third part situates partisan dehumanization in the real world to examine its geographical component, and urges the contextual facet connected with this partisan attitude. Taken together, this dissertation sheds light on the cause and consequence of partisan dehumanization through multiple aspects and methodologies, and emphasizes the continued importance of further scrutinizing this subject.

There are multiple paths to expand on the findings in this dissertation. First, to validate the findings that partisans with extreme attitudes appear to live a happier life, we can perhaps gather more behavioral, or biological data as evidence. For example, instead of daily surveys of self-assessed well-being, we can utilize wearable sensors to monitor their heart rate variability, sociometer of physical activities, or sleeping behaviors, indicators that can be used to reveal positive mood (Pentland 2014; Shin and Kim 2018; Wu et al. 2019). Second, while the behavioral measures offered in this dissertation differ from purely self-reported scales, they are still largely confined to lab or survey environments. What could be the observational evidence of dehumanizing perceptions or behaviors? Studies have been looking into rhetorics of dehumanizing languages as evidence (Moore 2019; Wahlström, Törnberg, and Ekbrand 2021). Identifying other plausible forms of dehumanization in our society can allow us to recognize its pattern and mitigate its effects. Third, consider a more causal approach with stronger identification strategies to probe how best to reduce partisan dehumanization in the real world. While the third part of the dissertation suggests that levels of partisan segregation are related to levels of partisan dehumanization, does increasing the chances of encounters with out-partisans on a daily basis really help to restrict dehumanizing perceptions? This research question is suited to rely on carefully controlled field experiments that past research has been using to study intergroup relations (e.g. Choi, Poertner, and Sambanis 2019; Sands and Kadt 2020), which can provide a clearer understanding of whether partisan dehumanization exists out there and discover the optimal remedy.

Finally, thinking comparatively, can the theory and results here be applied to other countries or different types of regimes? Polarization is not just a U.S.-centric issue and there are ongoing trends of democratic backsliding happening around the world due to worsening cleavages. Furthering the research agenda here to other contexts can be extremely timely and important, and deserves more scholarly scrutiny.

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