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Reactionism: The Motivation to Resurrect the Past

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

by

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#### Abstract

Subtle long-term societal changes, whether political, economic, or cultural, can be perceived as threats to personal freedoms and cause reactance (Brehm, 1966). Instead of rationalizing and accepting changing societal dynamics, I assert that some people compensate by reframing the past in ways that legitimize and perpetuate the reactant anger: reactionism. Reactance theory is predicated on the perception that the barrier to freedom is not self-inflicted, thus people should not perceive responsibility for the loss of freedom (Brehm, 1966). Additionally, the perception of threat may be driven in part, or at least enhanced, by perceiving others as having access to restricted freedoms, privileges, or entitlements: relative deprivation (Crosby, 1976). Lastly, longevity bias (Eidelman & Crandall, 2014) predicts that longer-term deprivation may increase perceived legitimacy of threats to freedom thereby increasing reactionism, whereas reactance should diminish in the face of evidence that the threat is intractable (Laurin, Kay, & Fitzsimons, 2012). To test these predictions, I conducted two studies using Mechanical Turk Workers. In Study 1, I used a minimal group paradigm to test a three way interaction between the three aforementioned causal factors (responsibility, deprivation, longevity). I predicted that the highest levels of reactionism would depend on low perceived responsibility, high perceived deprivation, and longer-term threats. I found no support for primary predictions, but exploratory analysis suggests that anger does explain the link between motivation and reactionism. In Study 2, I used an ideographic approach to isolate and test the effect of relative deprivation as a driver of reactionism, and also tested the potential ideological independence of reactionism (i.e., both selfidentified liberals and conservatives might experience a lust for the past when faced with longterm threats). Results suggest support for predictions that deprivation does drive reactionism, and that liberals and conservatives are equally likely to find the past attractive when feeling deprived.

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#### Reactionism: The Motivation to Resurrect the Past

#### Introduction

Across Europe and North America there are widespread perceptions of societal decline (var der Bles et al., 2015) which have been associated with extreme political attitudes (van der Bles et al., 2018). Whether considering social, economic, or political progress, people seem to believe "things are getting worse". This is despite the overwhelming evidence that the "arc of time bends towards progress" (Pinker, 2018). Indeed, worldwide food security is at its highest, infant mortality rates are at all time lows, human rights violations (e.g., slavery) are less widespread, etc. However, such claims might be met with skepticism by some. Perhaps people feel deprived because they are comparing their group to others groups that perceivably have more advantages (Mummendey et al., 1999; Prothero, 2016; Stouffer et al., 1949). This pushback against claims of progress reveals this zeitgeist of decline across the Western world (van der Bles et al., 2015), and begs the question: if most people believe everything is getting worse, how are they responding or reacting to this belief? A noticeable example of people's reaction to perceiving decline is the rise of reactionary politics, as characterized by President Donald Trump's populist campaign promise to "Make America Great Again." In four simple words President Trump seemed to capture the enmity of many U.S. citizens—America is not great anymore—while suggesting the solution can be found in the past.

In this research I strive to demonstrate that subtle long-term societal changes, whether political, economic, or cultural, can be perceived as threats to personal freedoms and cause a form of reactance (Brehm, 1966). Instead of rationalizing and accepting changing societal dynamics, I assert that some people compensate by reframing the past in ways that legitimize and perpetuate the anger associated with experiencing psychological reactance. To distinguish this

phenomenon from traditional reactance, I will call this reactionism. Reactionism is the motivation to resurrect aspects of the past that restore perceived losses to freedoms. Other factors beyond perceiving long-term threats likely contribute to reactionism. In the following research I will test two additional factors beyond perceived long-term threats as causal factors that drive reactionism—perceived responsibility and relative deprivation. First, reactance theory is predicated on the perception that the barrier to freedom is not self-inflicted, thus people should not perceive responsibility for the loss of freedoms when they experience reactionism (Brehm, 1966). Second, the perception of threat may be driven in part, or at least enhanced, by perceiving others (such as outgroup members) as having access to restricted freedoms, privileges, or entitlements: relative deprivation (Crosby, 1976). Last, longevity bias (Eidelman & Crandall, 2014) suggests that longer-term deprivation may increase perceived legitimacy of threats to freedoms thereby increasing reactionism, whereas reactance should diminish in the face of evidence that the threat is intractable (Laurin et al., 2012). In this research I focused on the combined effect, or interaction, of these three variables on reactionism. In what follows I provide historical context and then argue that it is when these three factors align that reactionism is most likely to emerge.

## History and Origin of Reactionism

The term reactionary was first formally used by Lazare Carnot in a 1797 essay regarding the Coup of 18 Fructidor (i.e., coup d'état) near to the end of the French Revolution (Online Etymology Dictionary). In the essay, Carnot lamented that he had been ousted from the government and exiled along with "the same villains, then acting as factious reactionaries" after he had "contributed to extricate [the Directory] from new dangers." Carnot was a conservative; however he was opposed to hereditary rule in France due to his belief in its tendency to become

despotic. He opposed Napoleon's desire for absolute rule, and after Napoleon's ousting Carnot labeled supporters as *reactive* to democratic demands. This would become the first record where being labeled a reactionary would refer to a person's desire to resurrect the status quo ante (i.e., monarchical rule; Carnot, 1797).

There is little recorded use of the term reactionary in the 19<sup>th</sup> century. When used, it was often in reference to the disposition of a counter-revolutionary – someone fighting against change. Often the term was employed by socialist and communist who sought to stigmatize the counter-revolutionaries fighting for totalitarian regimes. In the early 20<sup>th</sup> century as the Nazi party established itself as the Third Reich, to convey that they had resurrected the German empire of old, supporters were often referred to as reactionaries. Here, reactionaries would become inextricably linked with authoritarian and fascist regimes among political thinkers; hence, *reactionaryism's* modern definition as an extreme right wing movement (Robin, 2011).

However, in his 1943 essay *Credo of a Reactionary*, Francis Stuart Campbell would attempt to divorce the term reactionary from the stigma of an authoritarian apologist. In his words, "The term 'reactionary' as I use it does not stand for a definite and immutable set of ideas. It stands for an attitude of mind." He continues, "I see no more virtue in looking forward longingly to an unknown future than in looking backward nostalgically to known and proven values." He goes on to clarify that reactionaries recognize "known and proven values" from the past and understand they have been lost.

Campbell's conception of reactionism is consistent with recent theorizing and research.

In Greece, where chronic economic instability has instigated frequent changes in political leadership, reactionism is characterized by an orientation toward rejecting instability and a subsequent motivation to restore policies from the past in an attempt to restore stability (Capelos

& Katsanidou, 2018). The rejection of instability is much broader than the rejection of specific policies that undermine power and privileges (cf. Robin, 2011). Even broader is Mark Lilla's (2016) thesis where in *The Shipwrecked Mind* he argues reactionaries' are radicals who suffer from nostalgia by clinging to an unattainable version of the past. Forever mired in their resentment over lost ideals, constantly changing societies creates new reactionaries just as it creates new revolutionaries. This perspective treats reactionism as a fundamental orientation that predicts people's interpretation of change (towards better or worse circumstances) and their social and political preferences: progressing or regressing.

Theorizing and research on reactionism has supplied the logic and evidence to establish reactionism as a powerful and understudied force in society that characterizes responses to the threat of change. Indeed, Lilla (2016) seems to argue that perhaps any broader societal changes can lead to the frustrations experienced by a reactionary, to the extent they feel *left behind* by time. However, evidence from reactionism research in Greece indicates that feeling left behind is perhaps a sufficient, but not necessary condition of experiencing reactionism. Current social instability, which implies the threat of losing valued qualities of life, can also create a reactionary mindset. Taken together, these observations help to characterize the sweeping right-wing populism of Western societies as mass migrations, social turmoil, and economic instability are leading to new political, economic, and cultural elements in every society. Not least of which is the dominance of liberal values in Western culture.

In his book, Why Liberals Win the Culture Wars (Even When They Lose Elections): The Battles That Define America from Jefferson's Heresies to Gay Marriage, Stephen Prothero (2016) argues that liberal values tend to expand liberties, which are often backed by Western constitutions and rights, and thus held up by courts. Conservative values tend to restrict social

liberties, and thus are not as likely to be backed legally. From this perspective, conservatives have been losing a culturally infused political war for decades, despite often obtaining overt political power at local, state, and national levels in the U.S. Within this context of cultural change toward greater social freedoms, those who oppose such change may feel as though they are losing freedoms, such as the freedom to express prejudice towards those who were once considered social deviants. Such intergroup comparisons made by contemporary conservatives may reveal of broad sense of relative deprivation, such that their group is being unfairly deprived of perceived liberties (Mummendey et al., 1999). As such, conservatives might be expected to be more nostalgic, and more likely to express reactionary attitudes and behavior. However, waxing nostalgically about the past, or expressing a desire to go back to the past, is not the same as trying to recreate the past. The motivations and efforts to restore perceived freedoms, which are characteristic of psychological reactance, make reactionism distinguishable from nostalgia and conservatism.

#### Nostalgia and Conservatism vs. Reactionism

There are several constructs that are conceptually similar and potentially related to reactionism. However, two stand out: nostalgia and conservatism. For example, looking on the past favorably may involve feelings of nostalgia, which may increase preferences for the past. Also, conservatives' affinity for traditions would indicate that aspects of the past have something of value and is worth preserving. Below I will discuss how nostalgia and conservatism are similar to, and distinct from, reactionism. I will also discuss how different predictions can be derived from each construct. An argument could be made that status quo bias is related to reactionism. However, as previously mentioned, I approach the conceptualization of reactionism as a preference towards what once was, rather than what is. This is not to say that reactionism

captures a desire to go back in time, but a desire to recreate or resurrect *what once was* because it is good, and potentially better than *what is* or *what will be*.

#### Nostalgia.

Personal nostalgia is currently conceptualized as a mostly positive (albeit bittersweet) emotional experience that arises from looking back at our own past (Sedikides et al., 2008; Wildschut, Sedikides et al., 2006). Sedikides et al. (2008) argues that personal nostalgia serves a palliative role in alleviating loneliness, negative mood, and existential threats by fostering positive thoughts of social connectedness from our past, which ultimately boosts self-esteem. While personal nostalgia certainly contains cognitive elements related to self-relevant memories within specific social contexts, nostalgia is primarily an affective phenomenon (Batcho, 1995, 1998; Holbrook & Schindler, 1994; Routledge et al., 2008; Sedikides et al., 2008; Smeekes, 2015; Wildschut et al., 2006).

An important conceptual distinction can be drawn between reactionism and personal nostalgia. Nostalgic thoughts and feelings often begin with negative affect due to feelings of loss, loneliness, or social exclusion, for example (Batcho, 1995, Holbrook & Schindler, 1994; Sedikides et al., 2008; Wildschut et al., 2006). And while feelings of nostalgia culminate in positive affect and a boost in esteem, the positive affect co-occurs with negative affect due, in part, to people's understanding that the past they fondly remember *cannot* be re-created (Sedikides et al., 2008; Wildschut et al., 2006). Reactionism, which could also arise from negative experiences, captures the belief, and perhaps the motivation, that the past can be resurrected or re-created. Therefore, one primary distinction between reactionism and nostalgia hinges on whether or not people believe the past can and should be resurrected.

Nostalgia, however, is a broad construct. As such, nostalgia can also be experienced when people think of the collective in-group. In Smeekes (2015) conceptualization, it is argued that collective nostalgia is experienced specifically in reference to a collective for whom the person is an in-group member. This is consistent with Sedikides et al's (2008) definition of nostalgia which states that the self (or in the case of collective nostalgia, the in-group) is positioned as the protagonist when reminiscing about the past. In a compelling program of research, Smeekes and Verkuyten (2013; 2014) have demonstrated that people are motivated to perceive self-continuity across time. Perceiving self-continuity promotes in-group identification and affiliation. People often enhance their perception of self-continuity by perceiving the ingroup as more cohesive over time, thereby strengthening in-group identification. When the ingroup is threatened people start to develop feelings of nostalgia towards the ingroup of the past – collective nostalgia – and begin to use in-group defenses (Smeekes, 2015; Smeekes & Verkuyten, 2013; 2014). Frequency of nostalgic thoughts toward the national ingroup (i.e., "national nostalgia") increased among Dutch nationals when primed to think about the influx of immigrants and refugees. More frequent nostalgic thoughts about the nation predicted the belief in autochthony-the nation belongs to the original inhabitants-which then predicted greater prejudice towards immigrants and a desire to restrict immigration to the Netherlands (Smeekes et al., 2014).

Given that people can experience nostalgia toward a collective of individuals it is plausible that feelings of collective nostalgia may facilitate, or at least co-occur with, reactionism. For example, when Dutch participants in Smeekes et al's., (2014) study's show a preference to reduce immigration, they are perhaps attempting to stop the perceived loss of cultural homogeneity, but not necessarily attempting to *restore* cultural homogeneity. I would

argue that these authors are close to demonstrating reactionism, since they were able to show that frequently longing for the (presumably better) national past leads to a preference to slow the tide of change away from the past, particularly when societal changes are made salient.

However, despite the potential overlap between collective nostalgia and reactionism, I would argue that experiencing reactionism need not depend on membership in a threatened ingroup. Just like nostalgia can occur at collective and personal levels, so can reactionism. Thus someone waxing nostalgically over the fitness of their youth may embark on a fitness journey intended to recreate their youthful physique. To the extent a person in this situation is motivated by the anger of "letting themselves go," this could be characterized as personal reactionism.

Another conceptualization of nostalgia revolves around evidence that nostalgia is connected to "sensitive periods" of a person's past (e.g., Holbrook, 1993, 1994; Holbrook & Schindler, 1994). In their research on the relationship between consumer behaviors and feelings of nostalgia, Holbrook and Schindler (1994) developed a measure of *historic* nostalgia (easy to confuse with collective nostalgia), which is operationalized similar to reactionism. It captured positive attitudes towards aspects of the past and negative attitudes toward the future. The researchers demonstrated that positive attitudes towards the past predicted people's liking of fashion models depicted as representing past cultural eras. However, the fashion model that tended to be rated highest for each participant portrayed fashion and products that were specific to a person's age in the past (~ 14 years old) – their "sensitive period." So while these researchers explored the effects of evaluations of the past, they were focused on past experiences within a person's lifetime, and on a context (i.e., consumer choices) that's not directly related to broader political, economic, and cultural change.

Reactionism goes beyond historic nostalgia conceptually by allowing for positive evaluations of a past, regardless of individual sensitive periods, to influence their attitudes and choices. No one alive today was alive in the 1880's, but people do glorify and seek to restore the free market capitalism that once facilitated the economic booms and busts ushered in by the industrial revolution (e.g., economic libertarianism).

#### Conservatism: Perspectives from Political and Psychological Science.

At first, reactionism and conservatism would appear to overlap significantly. However, according to political scientist Corey Robin (2011) conservatism is rooted in a desire to *conserve* liberty and privileges. This implies that institutions and policies that confer liberty and privileges, while rooted in the past, are still in existence. Consistent with this notion are historical examples, such as when conservatives opposed the liberation of slaves, suffrage rights for women and ethnic and racial minorities, and many other progressive movements that would seemingly water down the power of the privileged (Robin, 2011). Reactionism, though, is a belief directed to something that is perceived to no longer exist, not something that needs to be maintained. However, once conservatives begin to perceive that privileges or entitlements have been lost reactionism would more accurately characterize a motivation to restore what was lost. Therefore, while conservatism should certainly compliment and perhaps predict reactionism in our current political climate, reactionism is a distinct phenomenon that applies when policies or institutions (that perhaps confer privileges or status) are to be restored, not maintained.

From a psychological perspective, researchers have revealed numerous traits and motives associated with conservatism. For example, when compared to liberals, conservatives are more motivated to resist change and progress due to greater concerns the potential harms of rapid progress (Jost et al., 2003a, 2003b, Jost et al., 2007). Likewise, conservatism has been linked to

greater avoidance of ambiguity, uncertainty, and abstraction (Frenkel-Brunswik, 1948; Jost et al., 2007; Wilson, 1973), higher needs for closure (Webster & Kruglanski, 1994), lower sophistication and integrative complexity (Sidanius, 1988; Tetlock, 1984), greater needs for order and structure (Neuberg & Newsom, 1993; Schaller et al., 1995), greater perceptions of threat (Jost et al., 2007; Lavine et al., 2005), greater self interest (Sears & Funk, 1991), and greater system legitimizing (i.e., status quo maintaining) beliefs (Jost et al., 2003a; Jost et al., 2009). From this perspective conservatism can arise from situational cues that promote these epistemic, existential, and ideological motives. Further, conservatism is more likely among those who have personality characteristics related to more traditional forms of conservatism (i.e., those higher in authoritarian and dominance tendencies; Altmeyer, 1998).

As previously mentioned, reactionism lends itself to the promotion of conservatism since a core motive is to conserve the status quo, which of course is rooted in the past (Jost et al., 2003a; Jost et al., 2009). Thus, reactionism could be characterized as an epistemic motive within the Jost et al. (2017) framework since appealing to the past could provide a sense of certainty during times of instability. Indeed, conservatives could be trying to preserve qualities of the past (e.g., religious and cultural traditions) that are perceived as less ambiguous than countercultural movements (e.g., feminism, political correctness) or the proposed policies of the left (e.g., affirmative action, access to reproductive healthcare). But while the motivation to preserve traditions, policies, and hierarchies of the past is best characterized by right-wing authoritarianism and social dominance orientation, these constructs fail to capture the distinct belief that past traditions, policies, and hierarchies no longer exist and need to be resurrected. Reactionism is driven by the motivation to *restore*, not maintain or conserve a perceived good past that no longer exists. So while reactionism and conservatism should overlap, reactionism

should go beyond conservatism by uniquely predicting preferences for policies that no longer exist.

Taken together, the evidence suggests a strong link between reactionism and conservatism. However, if reactionism predicts the motivation to restore, rather than conserve, then anyone with restorative motives (political or otherwise) could be experiencing reactionism. Liberals may also perceive characteristics of the past as better than the status quo. For example, liberals often look to the past for examples of policies that reduced wealth inequality, such as higher taxes for corporations and the wealthy, and a higher minimum wage (adjusted for inflation). With that in mind, political ideology may simply serve to populate the values, policies, and social dynamics of the past that an individual might be motivated to restore.

#### Reactionism as a Process

So if reactionism is not simply an affinity for the past, or an orientation toward preserving the status quo, where does it fit in? As alluded to, reactionism is catalyzed by perceptions of declining qualities of life such as those experienced during political, economic, or social/cultural change or instability. For example, when over 800 undergraduates were told that increased specialization in college education (i.e., more courses specific to their major than in the past) was leading to less versatility at finding employment and interfering with people's ability to achieve the American Dream, the core affective consequence was anger. Increased angered explained increased motivation to return to the past when education was perceived as broader and more versatile (i.e., more courses outside of specific major; the effects held when specialization and broadness of education was counterbalanced; Till & Eidelman, unpublished data). The conceptual and empirical links between perceptions of loss and the motivation to get it back harkens to reactance theory (Brehm, 1966).

#### Reactance.

A central outcome of reactionism is the expressed motivation to restore characteristics of the past. Reactionism, like reactance, can be conceived as a motivational process. As such, reactance provides a useful framework for understanding the type of perceived threats and subsequent responses for people experiencing reactionism. Given the conceptual overlap, it is reasonable to position reactionism as an extension of reactance theory. A quick review of the core components of reactance theory will help to identify how reactionism extends our understanding of people's effort to take back freedom.

Reactance theory (Brehm, 1966) explains that people perceive inviolable, behavioral freedoms. These freedoms may be perceived as rights and entitlements, privileges, or deserved rewards. When an obstacle to a perceived freedom is encountered, people will experience reactance—a motivational striving, affectively characterized by anger which is an approach oriented emotion (Harmon-Jones, 2003), to remove the obstacle or exercise the freedom (Brehm, 1966). Motivational striving to restore freedoms will increase as people's confidence in their perceived entitlement or deservingness of the freedom increases, as the importance or personal relevance of the freedom increases, and as the threat to the freedom increases (Brehm, 1966). However, to the extent people don't perceive control over their ability to restore freedom (Wortman & Brehm, 1975), or perceive the difficulty of restoring the freedom too great (Laurin et al., 2012) motivational striving will diminish.

At first glance, reactionism and reactance are conceptually similar. However, reactance is experienced in response to *specific threats* to freedom. For example, when people are led to believe they have a choice between two alternatives but then the choice is impeded, the withheld alternative may become more attractive (Brehm & Sensenig, 1966). However, when the freedom

is restored the withheld alternative becomes less attractive, even when simply observing someone else's freedom to choose has been restored (Worchel & Brehm, 1971). Indeed, there exists a large literature exploring specific threats to freedom, particularly in the context of communication and clinical treatment (for a review, see Rosenberg & Siegel, 2016). Only in recent years has research on *broader threats* begun to shed some light on how reactance theory may have broader social implications for efforts to restore perceived freedoms. To draw a clearer distinction between specific and broad threats, let's first review types of threats recognized in the reactance literature.

First, there are internal and external threats. Internal threats are derived from limiting your own freedom, whereas external threats are derived from your environment (e.g., policies, persuasion attempts, etc.) Second, there are direct and implied threats. Direct threats are explicit threats to your own personal freedom, whereas implied threats are threats inferred by observing another person who's had their freedom threatened. These four core threats are well documented beginning with Brehm's (1966) original theorizing.

However, other types of threats have been recognized as well, which could be characterized as broader. These threats are broader because they might affect more people and may persist over longer periods of time. For example, when public relations officials across various political, academic, and private institutions were surveyed regarding their level of concern over longer-term vs. shorter-term threats to their organizations, longer term threats elicited more negative and more intense emotions and they perceived greater demands on organization resources (Jin & Cameron, 2007). Additionally, broader threats may not have the certainty of an edict or policy, but rather may reflect changes in norms, traditions, or values that create behavioral restrictions. Relative deprivation theory predicts the perceptions of intergroup

threats when members of a group compare their ability to exercise entitlements and deserved privileges to other groups (Mummendey et al., 1999). An important implication is that cultural changes, which affects many people and tends to occur slowly, may be perceived as threatening to freedom if someone finds themselves as part of the culture that is losing influence (Prothero, 2016).

For example, Jonas et al. (2009) demonstrated that reactance varies by whether people self-construe themselves as independent or interdependent. People with independent self-construals, which are more characteristic of Western cultures when compared to Eastern cultures, were more likely to express reactance to threats to personal freedom (i.e., agreeing to restricted transportation options) rather than threats to collective freedoms (e.g., agreeing to restricted transportation options for a relevant ingroup, co-workers). However, people with interdependent self-construals were more likely to express reactance in response to threats to collective freedoms than personal freedoms. This research highlights how perceived threatened freedoms and reactance may vary across individuals and groups. In this case the threat to the collective, as opposed to just the self, represents a broader manifestation of threat than reactance theory would normally imply (Brehm, 1966). Instead, this type of threat may be more characteristic of the threats that may induce reactionism.

Another example of reactance in response to broader threats comes from recent research exploring reactance in response to thought control vs. behavioral control. Threats to the way we think imply future efforts to also control our behavior, thus thought control is a broader, more restrictive feeling of control and leads to more extreme reactance (Ma et al., 2019). Conway et al. (2017) found that priming people with political correctness cues, which are norms restricting communication, increased support for a political candidate who was associated with violating

communication norms (i.e., President Donald Trump). These researchers argue the reactance in response to political correctness created a boomerang effect culminating in a "cultural revolt" against norms that are consistent with politically liberal cultural values. This is consistent with research on reactionism, where it was demonstrated that perceiving the past as conferring lost freedoms and values predicted support for then Presidential Candidate Donald Trump above and beyond correlates of ideology (Till et al., unpublished manuscript).

These broader types of freedom threats are unique from specific threats because the difficulty of restoring broad losses freedom is more difficult and involves more uncertainty regarding the likelihood of success. Researchers have demonstrated that when the "absoluteness" of change is maximal, such that a freedom is perceived as permanently lost, motivational striving will diminish and people will rationalize or system justify (Laurin et al., 2012; Wortman & Brehm, 1975). However, in follow up work these researchers made an important observation with implications for reactionism. When participants were told that freedoms were permanently lost, and when they were paying full attention and unencumbered by cognitive load, they experienced reactance. Only when distracted or under cognitive load did participant accept the loss of freedom and seek to rationalize (Laurin et al., 2013). This contradicts motivational intensity theory (Brehm & Self, 1989; Wright et al., 2015) where it is predicted that when difficulty of restoring freedom is perceived as beyond personal capacity, motivational striving should cease. So how might people sustain their motivation to restore freedoms when slow broad changes are threatening those freedoms?

Recent reviews of reactance theory have recognized a gap in extant literature regarding how people experience reactance under conditions of uncertainty, particularly when the uncertainty surrounds the difficulty of restoring freedoms. Reactionism may help explain

possible responses to such broad and uncertain threats to freedom. A hallmark of reactionism is the perception that the past is better than the present, and that the future will likely be worse. As stated above, this perspective of the past is often conflated with reactionaryism, which is a political orientation. The distinction between reactionism and reactionaryism lies in the antecedents. Reactionaries are responding to acute political turmoil and are thus politically motivated, while those experiencing reactionism are responding to broader slower changes, such as cultural change. As such, reactionism occurs in response to threats to "way of life," broadly construed. Reactionism predicts that via the psychological process of reactance, people become motivated to restore and express lost freedoms derived from their culture and values. But it goes beyond reactance, because people are also rationalizing reactance in the face of prolonged threats. And they rationalize by glorifying the past.

## From Reactance to Glorifying the Past.

At the heart of reactionism is the perception of the decline or loss of freedoms over time resulting in the present as being perceived as worse than the past. However, perceiving the deterioration of freedom over time is difficult to reconcile with the progress that has been made in many societies around the world. For example, in 2014, 67% of survey responses in the U.S. indicated personal economic situations were good (Pew). Indeed, COVID-19 may create the first annual global increase in food insecurity and extreme poverty since 1990 (Sumner et al., 2020, working paper). This problem is now likely being further exacerbated by the Russian invasion of Ukraine, a major global wheat producer. Until recently, most global averages of well-being and economic progress were showing improvement year over year. Yet, collective discontent has been increasing in Europe and North America (van der Bles et al., 2015). As an explanation, van der Bles and colleagues (2015) argue that personal well-being is evaluated independently of

collective-level evaluations. Thus, it is possible for a disconnection between personal experiences and perceptions of society as a whole—between judgments about "me" and judgments about "us." "I" can do well despite a society that is failing to, for example, properly educate, failing to regulate immigration appropriately, or failing to manage the distribution of wealth appropriately.

Research on perceiving change over time and evaluating our experiences over time can help us understand this disconnect between judgments of personal change and societal change. For example, the peak-end rule predicts that people will use the some amalgam of the peak (most intense) affect and final affect as a holistic judgment of a prolonged experience (Fredrickson & Kahneman, 1993). This was demonstrated with patients undergoing colonoscopy or lithotripsy whose judgments of pain were best predicted not by the duration of the experience, but by an average of the most intense pain and end pain (Redelmeier & Kahneman, 1996). However, at the end of a sequence of painful experiences, when a low-pain episode was experienced at the end the overall judgment of pain from the treatment was reduced further highlighting the tendency for people to heavily weight the final experience (Redelmeier et al., 2003).

A key takeaway from research on the peak-end heuristic is that individuals don't encode their trajectory of subjective judgments throughout a prolonged experience, instead they summarize. Other research converges to support this conclusion, such as people's tendency to neglect variability over time, instead comparing a recent observation to the average over time and thus potentially misperceiving change (Silka, 1981). However, when information about variability is made salient, people are less likely to perceive change when a recent observation deviates from a long term average (Silka, 1983). As such, perceiving change may be a broad judgment based on extreme experiences and recent outcomes that are then compared to abstract

or vague summaries, rather than careful observations of change over time. But why might they summarize and make broad judgments?

Perhaps there is a motivational component. Conway and Ross (1984) demonstrated that college students who participated in a study skills program believed they performed worse academically in the past than they actually did because they wanted to believe the program helped. However, compared to a control group their performance did not differ before or after the study skills program. Yet, the reconstruction of history persisted and influenced future perceptions. Six months later these students believed the program had improved their overall academic performance over the semester despite no differences from the control. The reasoning is that students desired change, and thus created it. However, this research is related to perceptions of personal histories. And it begs the question whether such a motivated reconstruction of history is possible for societal histories.

Research on construal level theory (Liberman & Troppe, 2008) provides evidence that people can construe reality along the dimension of social distance by thinking in terms of "we" vs. "I." For example, when people were induced to think in terms of "we" and then given a just world threat (told about a sexual assault victim's continued suffering), people were more likely to blame the victim than when induced to think about "I" (van Prooijen & van den Bos, 2009). Presumably, when thinking about the self as part of a broader collective, people are more motivated to maintain consistency between beliefs and specific outcomes (i.e., in a just world there are not any victims). This indicates that sometimes people apply a different set of standards to social judgments than to personal judgments. And if a situation involving social judgments promotes reactionism, then the motivation to maintain cognitive consistency between beliefs and perceptions in social contexts may be a driving factor when construing the past, present, and

future. People may want to believe that society should be making *more* progress than it has made, regardless of personal progress. And recent and intense negative affective social experiences may be utilized to summarize change over time in order to create consistency between beliefs about what *should be* and perceptions of *what is*. For example, President Trump's claim on the 2016 campaign trail that immigrants are rapists and murderers may have legitimized the perceptions that society is in decline despite those who made that judgment having experienced little if any decline in their quality of life.

However, maybe motivation is in part biased by memory. Keeping in mind that people are more likely to form judgments and remember evaluations based on extreme events or final outcomes (i.e., peak-end rule), if positive memories are more likely to be retained than negative memories (Walker et al., 1997; Walker et al., 2003) then perhaps the past will be perceived more positively than it actually was (Morewedge, 2013). Moreover, if these nostalgic beliefs about the past are considered more representative of the past than current dimensions of evaluation (i.e., the present is perceived as so different from the past, the two can't be compared; Morewedge, 2013) this then can become the beliefs upon which people anchor and strive to achieve consistency with when making social evaluations. Indeed, since nostalgic beliefs of the past are often based on personal experiences (Holbrook & Schindler, 1989), and since personal experiences are more concrete than what was learned in history class, people may have a tendency to anchor on the concrete beliefs about the past contributing to belief perseverance (Anderson, 1981). This persistent and personal belief about the past can then become the standard of comparison against which social judgments are made. If people perceive a threat to societal values (e.g., freedom, safety) and compare current characteristics of society to their personal and idealized version of society, they may perceive a loss or decline in societal values.

And to the extent people believe they can recreate, resurrect, or restore their idealized version of the past, reactionism predicts they will be motivated to do so. At the heart of this motivation may be reactance and associated negative affect—anger. People may want to correct a perceived threat to their freedom, and take back their better past lest they be mired as someone on the wrong side of history to be left behind.

## Overview of Studies

To test the effect of longevity, responsibility, and relative deprivation on reactionism I conducted two studies. These studies were pre-registered through OSF (https://osf.io/yhjat). The goal of the first study is a direct test of theory using a minimal group paradigm. This will test reactionism outside of a politically relevant context to assess whether reactionism can be induced when political change is not salient. I anticipate that reactionism is a broader psychological phenomenon that can apply to any social contexts, however minimal. The goal of the second study is to demonstrate reactionism as an ideologically symmetrical phenomenon—context should determine whether those higher in liberalism or those higher in conservatism are more reactionary—and to highlight the potential role of ideological conflict in driving reactionism. In the second study an idiographic approach will allow individuals to generate their own political relevant stimuli and it is expected the ideological differences in reactionism will be minimal—liberals will be as reactionary as conservatives when a value is threatened despite the tendency for conservatives to chronically express reactionism motives.

#### Study 1

This first study will assess the interaction between perceiving responsibility for disadvantages, perceiving disadvantages as longer-term, and perceiving deprivation compared to others as conditions for high levels of reactionism. I used a minimal group paradigm where

participants were assigned to generic personality categories after ostensibly taking a personality assessment. Once assigned to a personality label they were told their personality group suffers from personality-based disadvantages. It is within this context I manipulated their responsibility, longevity, and relative deprivation associated with these disadvantages. I used this paradigm to test for a three way interaction between the three factors (deprivation, responsibility, longevity). I expected reactionism, as measured by a motivation to return to a positive past when personality-based treatment was better, to be greater when perceived deprivation was high (vs. low), perceived responsibility was low (vs. high), and longevity of threat was longer-term (vs. shorter-term).

#### Method

#### **Participants**

N=800 participants were recruited in February 2021 through Cloud Research (Turk Prime Panels) for \$1 compensation for participation in a 5-7 minute study (estimating average of 6 minutes, which would amount to \$10 per hour) administered via Qualtrics. This sample size was chosen in part due to budget constraints, though a-priori sensitivity power analysis revealed that a sample of this size would exceed the sample size needed (N=725) to observe a small effect—2% increase in model fit ( $\Delta R^2$ )—with 80% power given the independent variables and their potential interactions. Data collection proceeded until N=800 participants were compensated. A total of 866 participants began the survey, though n=66 did not complete the survey and did not receive compensation. Of the 800 responders that did receive compensation, n=96 left at least one response blank and were removed from analysis rather than imputing a score, leaving N=704 responses. An additional n=47 responders failed the attention check ("Select" I Strongly Disagree" to indicate you are attentive."), and n=24 failed the memory

check ("What personality category were you assigned to?") leading to removal from analysis. Additional sensitivity analysis revealed that the final sample size of N = 623 should be sufficient to observe a 1.2% increase in model fit with 80% power. This was judged as an acceptable minimal effect size to justify continuing with analysis.

The remaining N=623 analyzable responses were U.S. residents (based on IP address filters via Cloud Research) ages 18 and up (M=33.8, SD=10.3), n=351 (56%) identified as female, n=255 (41%) identified as male, n=7 identified as transgender, n=6 specified another gender, and n=4 chose not to respond to the gender prompt. The racial and ethnic composition included n=50 (8%) who identified as of Asian descent, n=77 (12%) as Black/African American, n=39 (6%) as Hispanic, n=1 as Indian, n=2 as Middle Eastern, n=11 (2%) as Native American, n=425 (68%) as White/Caucasian, n=16 (3%) specified a Bi/Multi-racial background, and n=2 specified something other than the options provided.

#### **Procedure**

After reviewing and agreeing to the informed consent (see Appendix A) participants were administered 20 items from a personality questionnaire (see Appendix B) and given a personality label "Green" or "Orange," ostensibly based on their responses, to establish a minimal group identity (see Gramzow & Gaertner, 2005; Miller et al., 2012). To minimize survey time participants were not administered items assessing their attitudes toward their novel groups, which is a common procedure intended to strengthen group identity, after they received their group label.

Next, participants read one of eight personality descriptions (See Appendix C) designed to induce perceptions of personality-based disadvantages. Specifically, personality origin (choices vs. genetics) was manipulated to influence perceptions of responsibility, longevity of

personality-based disadvantage (decade vs. several decades) was manipulated to influence legitimacy and intractability of perceived disadvantages, and relative group deprivation (same treatment vs. better treatment) was manipulated to influence perceptions of ingroup deprivation relative to how other groups are treated. After reading the personality description participants were assessed for correlates of reactance and reactionism using measures of anger, attractiveness of alternatives, and motivational striving, as well as direct measures of reactionism and attitudes toward the status quo. After completing the anger items, the remaining dependent measures were shown in random order for participants to reduce order effects given there was not a theoretical basis for presenting the items in a specified order. The final items were manipulation checks for induced responsibility, longevity, and deprivation, as well as two items assessing nostalgia as a covariate.

#### Measures

#### Anger

Anger was measured on a 0 (No Anger) to 100 (Extremely Angry) thermometer scale using two items: "How angry do you feel, if at all, about the way others might treat you because of your personality?"; "How angry do you feel, if at all, about the possibility of being restricted or censored because of your personality?" The first item is intended to capture anger over the perceived unfairness associated with the negative social consequences of group membership, while the second item is intended to tap into reactance induced anger by capturing anger resulting from restricted freedoms. These two items were moderately to strongly correlated, r = .66, and were combined to form a single index of anger.

### Attractiveness of Alternatives

Attractiveness of alternatives was assessed as a correlate of reactance and reactionism. Increased preferences of alternative personality-based treatment should be greater after freedom threats when compared to a neutral condition. Participants responded to two items: "Would you like better treatment?" and "Would you like more freedom to express yourself?" on a 1 (Not at all) to 9 (Very much) scale. These items were moderately correlated, r = .44, and were combined to form an index.

#### Motivational Striving

Another correlate of reactance and reactionism is motivational striving. This was assessed by having participants respond to the items: "How motivated are you to obtain better treatment from others?" and "How much effort would you be willing to put into obtaining more freedoms of expression?" on a 1 (Not at all) to 9 (Very much) scale. Increased motivational striving should be greater after freedom threats when compared to a neutral condition. These items were moderately correlated, r = .50, and were combined to form an index.

## Preference for the Status Quo

Using a 1 (Not at all) to 9 (Very much) scale, four items evaluated participants preference for the status quo: "Is the way people are being treated good?," "Do people currently know how to treat other people?," "Should we keep treating people the way they are being treated?," and "Should we protect our current values from being changed?" Conceptually, participants' preference for the status quo is another operationalization of attractiveness of alternatives but framed at a broader social level rather than a personal level. Greater rejection of the status quo should reflect a preference for change, a logical precursor to preferring something new or from

the past. These four items demonstrated reasonable internal consistency,  $\alpha = .76$ , and were combined to form a single composite.

## Reactionism: Preference for the Status Quo Ante

The final dependent measure also consisted of four items that paralleled preferences for the status quo but was framed as a preference for the past. These four items were: "Were people treated better in the past?," "Did people used to know more about how to treat people than we do now?," "Should we go back to treating people the way they used to be treated?," and "Should we prevent our values from the past from being lost?" The four items used the same 1 (Not at all) to 9 (Very much) scale. Higher scores on this critical dependent measure should reveal the preferences that participants have for the past after faced with threats to freedom. These four items demonstrated reasonable internal consistency,  $\alpha = .83$ , and were combined to form a single composite.

## Manipulation Checks

To assess the effect of the manipulations participants were asked: Do you agree that you [are/are not] responsible for your personality, and Are [Orange/Green] personalities being treated [the same/better]? Critical aspects of the two items were varied based on participants conditions to ensure they remained unaware of the other conditions and the anchors remained 1 (Not at all) to 9 (Very much). To assess longevity an inappropriate item was used as a result of an editing error during the construction of the survey, this item was: Has society permanently changed so much that we should go back to the way things were? This item conceptually captures reactionary attitudes but not the perception that changes to personality-based treatment are recent vs. long-standing and was excluded from analysis.

#### Attention Check and Demographics

After finishing the dependent measures, participants were assessed for attentiveness by being asked which personality label they were given, see participants section for more information. They then reported their age, gender, and ethnicity, as well as general, social, and economic political ideology on a 1 (*Very Liberal*) to 9 (*Very Conservative*) scale ( $\alpha = .93$ , combined to form single index of ideology), and finally their political party (*Democrat*, *Republican*, *Libertarian*, *Independent*, *Other*).

Finally, they were provided a debriefing statement (see Appendix D) revealing the purpose of the study. Specifically, the debriefing statement explained that the personality measure is bogus and that their personality was never assessed. After which, they were forwarded to the compensation page to provide their secret key and receive payment.

#### Results

#### **Manipulation Check**

The two valid manipulation checks each used a single item described above. First, participants who were told that others are being treated better (M = 5.9, SD = 1.8, n = 312) compared to those told others are treated the same (M = 5.0, SD = 1.7, n = 311) were more likely to agree that others were being treated better, t(621) = -5.8, p < .001.

Next, counter to expectations participants who were told that personality was a result of genetics (M = 6.4, SD = 2.2, n = 316) compared to those told that personality was a result of choices (M = 4.7, SD = 2.4, n = 307), were more likely to agree that they are responsible for their personality t(621) = 9.2, p < .001. These results indicate that the responsibility manipulation did not work as intended. Interpretations of subsequent analyses need to be sensitive to this unexpected effect.

### **Primary Analysis**

To preserve statistical power the initial test was a direct test of the prediction that anger, attractiveness of alternatives, motivational striving, and preference for the past would be greatest when the "other" personality group was treated better, but only when personality was genetic rather than based on choices. And to the extent personality-based disadvantages were increasing for multiple decades as opposed to only one decade, anger, attractiveness of alternatives, motivational striving, and preference for the past should be even greater. Further, preference for the status quo should be reduced when disadvantages were worse than others' and participants felt more responsible for their personality, but especially so the longer it is perceived to have occurred.

The following procedure was utilized for all the following tests involving a three-way interaction. After dummy coding the independent variables (deprivation = 1, similar treatment = 0; responsibility low = 1, responsibility high = 0; longevity high = 1, longevity low = 0), the dummy coded variables were regressed on each criterion variable us the *lm* function from the base *stats* package in R allowing for an assessment of the omnibus model and a test for a three-way interaction. If the model fit was significant and a three-way interaction was present, the model was decomposed into two-way interactions for ease of interpretation. If the model is non-significant and lacks evidence for a three-way interaction, exploratory analyses were conducted and reported later in the results.

#### Anger

I predicted that anger would incrementally increase as responsibility decreased, and longevity and relative deprivation increased. However, the three-way interaction test for the

effect of responsibility, longevity, and relative deprivation on anger was not significant, b = 8.45, t(622) = 0.99, p = .32; F(7, 615) = 0.75, p = .63.

#### Attractiveness of Alternatives

I predicted that the attractiveness of alternatives would incrementally increase as responsibility decreased, and longevity and relative deprivation increased. However, the three-way interaction test for the effect of responsibility, longevity, and relative deprivation on attractiveness of alternatives was not significant, b = -0.29, t(622) = -0.58, p = .56; F(7, 615) = 0.60, p = .76.

### Motivational Striving

I predicted that motivational striving would incrementally increase as responsibility decreased, and longevity and relative deprivation increased. However, the three-way interaction test for the effect of responsibility, longevity, and relative deprivation on motivational striving was not significant, b = -0.55, t(622) = -1.01, p = .32; F(7, 615) = 0.93, p = .48.

### Preference for the Status Quo

I predicted that status quo preferences would incrementally increase as responsibility decreased, and longevity and relative deprivation increased. However, the three-way interaction test for the effect of responsibility, longevity, and relative deprivation on status quo preferences was not significant, b = 0.35, t(622) = 0.63, p = .53; F(7, 615) = 0.18, p = .99.

#### Reactionism: Preference for the Status Quo Ante

I predicted that reactionism would incrementally increase as responsibility decreased, and longevity and relative deprivation increased. However, the three-way interaction test for the effect of responsibility, longevity, and relative deprivation on reactionism was not significant, b = 0.34, t(622) = 0.52, p = .60; F(7, 615) = 1.12, p = .35.

## **Summary of Primary Analysis**

Contrary to predictions, a minimal group paradigm did not elicit anger and subsequent rejection of the status quo in favor of the past, nor any other correlates of reactance (see Table 1). It may be that reactance and reactionism are processes that require greater personal relevance than that of personality-based treatment. Or perhaps the context lacked validity to the

Table 1 Study 1 Multiple Regressions, Partial Slopes, and Standard Errors for Dependent Variables

|                                    | Dependent variable: |         |            |         |         |  |
|------------------------------------|---------------------|---------|------------|---------|---------|--|
|                                    | Anger               | AA      | MS         | PRS     | RCT     |  |
| Deprivation                        | 2.46                | -0.00   | -0.49*     | 0.05    | 0.46    |  |
|                                    | (4.21)              | (0.25)  | (0.26)     | (0.27)  | (0.32)  |  |
| Longevity                          | 1.92                | -0.11   | -0.47*     | 0.10    | -0.06   |  |
|                                    | (4.15)              | (0.25)  | (0.26)     | (0.26)  | (0.31)  |  |
| Responsibility                     | 0.67                | -0.38   | -0.50*     | 0.10    | 0.29    |  |
|                                    | (4.29)              | (0.26)  | (0.27)     | (0.27)  | (0.33)  |  |
| DxL                                | -3.63               | -0.01   | 0.39       | -0.01   | -0.63   |  |
|                                    | (5.97)              | (0.36)  | (0.38)     | (0.38)  | (0.45)  |  |
| DxR                                | -3.78               | 0.46    | 0.61       | -0.14   | -0.38   |  |
|                                    | (6.03)              | (0.36)  | (0.38)     | (0.38)  | (0.46)  |  |
| LxR                                | 1.27                | 0.32    | $0.71^{*}$ | -0.24   | 0.08    |  |
|                                    | (6.02)              | (0.36)  | (0.38)     | (0.38)  | (0.46)  |  |
| DxLxR                              | 8.45                | -0.29   | -0.54      | 0.34    | 0.34    |  |
|                                    | (8.51)              | (0.51)  | (0.54)     | (0.54)  | (0.65)  |  |
| Constant                           | 43.56***            | 6.79*** | 6.54***    | 4.43*** | 4.52*** |  |
|                                    | (2.94)              | (0.17)  | (0.18)     | (0.19)  | (0.22)  |  |
| Observations                       | 623                 | 623     | 623        | 623     | 623     |  |
| $R^2$                              | .008                | .007    | .010       | .002    | .013    |  |
| Adjusted R <sup>2</sup>            | 003                 | 005     | 001        | 009     | .001    |  |
| Residual Std. Error ( $df = 615$ ) | 26.51               | 1.59    | 1.69       | 1.71    | 2.03    |  |
| F Statistic (df = 7; 615)          | 0.75                | 0.60    | 0.93       | 0.17    | 1.11    |  |

Note: AA = Attractiveness of Alternatives, MS = Motivational Striving, PRS = Preference for Status Quo, RCT = Reactionism; p<0.1; \*\*\*p<0.05; \*\*\*\*p<0.01

participants given their rejection of responsibility when told that personality is a result of choices. A political context may satisfy both the personal relevance and perceived validity of claims involving group-based disadvantages or extended periods of time. To address this possibility a politically based context will be employed in the follow-up study.

#### **Exploratory Analysis**

In the following analysis the data will be explored to assess whether theoretically consistent patterns of effects emerged using correlational analysis. No two-way interactions were observed, so these analyses will only include bivariate correlations and mediation analysis using bootstrapping for estimating effects.

#### **Correlations**

For the full correlation table see Appendix E. Correlation analysis reveal two primary themes. First, the manipulations did not have a main effect for any of the outcome variables. As such, no further analysis involving manipulations will be explored. Second, all of the primary outcome variables were significantly correlated in a theoretically consistent manner. For example, higher anger predicted greater attractiveness of alternatives, motivational striving for change, status quo preferences, and reactionistic preferences for the past.

Attractiveness of alternatives was correlated with reactionistic preferences for the past almost twice of strongly as status quo preferences, potentially indicating a greater preference for change when alternatives are enticing. Yet, motivational striving showed a slightly weaker relationship with reactionistic preferences for the past than with status quo preferences which seems inconsistent with theorizing. However, perhaps those higher in motivational striving did prefer change, just not to the past. Instead, maybe they would rather maintain most of the status quo while improving personality-based treatment. As these outcomes were not measured this is

purely speculation. Future research should explore the various types of change people might prefer under these conditions.

Consistent with prior data collection and theorizing, greater conservatism was strongly correlated with greater status quo preferences (e.g., Jost et al., 2003), but descriptively 50% more strongly with reactionistic preferences for the past. However, older individuals tended towards conservatism in this sample, and so perhaps the observed greater preference for the past reflects nostalgic tendencies to some extent. Given the ineffectiveness of the manipulations, it is not possible to discern what motivated preferences for the past

#### Mediation

Consistent with theorizing, several mediation effects emerged. It was expected that anger should explain increased reactionism. Moreover, that attractiveness of alternatives and motivational striving would be antecedents of reactionism. As such, attractiveness of alternatives and motivational striving should predict increased reactionism because of increased anger. The full mediation model for attractiveness of alternatives was significant  $R^2 = .04$ , F(2, 620) = 12.24, p < .001 and indicated partial mediation as the total effect (b = 0.20, t(621) = 3.9, p < .001) dropped when adding anger to the model (b = 0.15, t(620) = 2.83, p = .004). The same held for motivational striving was significant  $R^2 = .04$ , F(2, 620) = 13.46, p < .001 and indicated partial mediation as the total effect (b = 0.21, t(621) = 4.44, p < .001) dropped when adding anger to the model (b = 0.16, t(620) = 2.89, p = .001). However, it's necessary to note the when including attractiveness of alternatives and motivational striving in a model with anger and reactionism, the relationship between anger and reactionism remained significant but was substantially reduced (b = 0.01, t(620) = 2.89, p = .004; b = 0.01, t(620) = 2.64, p = .005, respectively) when compared to the uncontrolled correlation between anger and reactionism (r = 1.00)

.16, p < .001). This indicates that judgments and behavioral intentions associated with reactionism explained most of the variance in these models compared to the affective component of anger.

#### **Study 1 Discussion**

The goal of Study 1 was to assess whether people's preferences for reverting back to the past would increase when faced with the prospect of personality-based disadvantages. Those with a greater desire for better personality-based treatment were more likely to prefer the past. But being told they are not responsible for their personality, that the disadvantages have been occurring for decades, and that people with different personalities are treated better did not increase their desire for a past way of life. Indeed, these variations in the conditions of the study produced no meaningful differences across any of the outcome variables. However, exploratory correlational analysis yielded modest, if tentative evidence that validate the conceptual model that anger should explain why preferences for better treatment and motivation to improve treatment can drive a preference to a cognitively salient solution—change back to the past.

Why did the manipulations fail? As alluded to, perhaps reactionism is a *hot* cognitive process that requires significantly more anger inducing stimuli. In other words, maybe personality-based disadvantages are too mundane. Other types of disadvantages might have been more appropriate within a minimal group paradigm. However, so many social disadvantages have political implications it proved challenging to generate a disadvantage that didn't have a strong conceptual link to ideology. Future researchers may yet find opportunity for exploring this model in a non-political context should their imagination yield better results for a context that sufficiently produces anger. Anger floated around the mid-point in this study (M = 45.6 out of 100, SD = 26.5) indicating that personality-based disadvantages did produce some degree of

negative affect. However, perhaps the level of outrage necessary to prefer going back in time is quite higher. In the following study I took an idiographic approach. This approach to generating relevant political context may achieve these potentially necessary conditions.

#### Study 2

#### Overview

The second study isolated and assessed the primary causal variable of relative deprivation, perceiving others as having access to deserved freedoms, as a perception that increases reactionism. I used an idiographic approach to create a political context where participants were allowed to choose their own political issue after being provided a prompt that encouraged them to think of a political policy that puts them at a disadvantage (vs. an irrelevant policy<sup>1</sup>). I expected reactionism, as measured by a desire to return to a past when their political disadvantage wasn't present, to be greater when perceived deprivation was high (vs. low in the irrelevant policy condition). I also expected that participants self-reported ideology would not predict their desire to return to the past, indicating that the past is equally attractive to people across the political spectrum when feeling relatively deprived compared to others.

#### Method

## **Participants**

This study was conducted in April 2021 and sought to recruit 400 participants through Cloud Research for Mechanical Turk for \$1 compensation (estimating average of 6 minutes, which would amount to \$10 per hour) to participate in a 5-7 minutes study administered via Qualtrics. This sample size was chosen in part due to budget constraints. A priori power analysis revealed that a sample of this size would fall short of the necessary sample size to (N = 788) to observe a small effect (d = 0.2) with 80% percent power. Thus, sensitivity analysis was

performed to estimate the smallest acceptable effect size given the target sample size which was d = 0.28. Participants were informed on the study information page, prior to providing consent, that there was an open ended response that needed to be properly completed to receive compensation. After providing informed consent (see Appendix A), they were again asked to indicate they understood the need to follow the instructions on the open ended response. Here they were told that they would be compensated regardless of the content of their response so long as it was not copy-pasted or computer generated, and that this was a way to minimize bot responses. Finally, they were encouraged to email if they believed rejected compensation was error. Every participant that emailed was compensated, even if they did not properly follow the instructions to avoid possible conflicts over fairness. As such, each response was individually validated. Despite using Cloud Research validation tools to minimize survey farming and automated bot responding, there were a significant amount of invalid open ended responses.

In total, N = 861 responders began the study before achieving N = 225 valid responses. Responses were deemed invalid if they left the required open-ended response blank, or filled it in with unintelligible strings. High bot rates resulted in high invalid response rates. Time constraints limited further data collection since data collection was intended to take one week or less, but ended up requiring two weeks to achieve this sample size. Thus data collection was stopped after two weeks. Of the N = 225 responders that were valid, n = 35 did not complete the rest of the survey and were removed from analysis, leaving N = 190 responses. An additional n = 2 responders failed the attention check ("To indicate you are paying attention please select option number 3 on the scale below."). This left a final sample of N = 188. Since this final sample fell considerably short of the predetermined sample size, additional sensitivity analysis was conducted to determine a new smallest acceptable effect size, which was d = 0.4.

The final sample was comprised of U.S. residents (based on IP address filters via Cloud Research) ages 18 and up (M = 38.6, SD = 12.0), n = 90 (48%) identified as female, n = 96 (51%) identified as male, n = 0 identified as transgender, and n = 2 specified another gender. The racial and ethnic composition included n = 18 (10%) who identified as of Asian descent, n = 16 (9%) as Black/African American, n = 6 (3%) as Hispanic, n = 1 as Indian, n = 0 as Middle Eastern, n = 1 as Native American, n = 140 (74%) as White/Caucasian, n = 5 (3%) specified a Bi/Multi-racial background, and n = 1 specified something other than the options provided. Overall, sample characteristics were similar to Study 1.

#### **Procedure**

Participants were randomly assigned to read either an experimental or a control prompt. In the experimental prompt, they were asked to think about "political policies that negatively impact a group you belong to but at the same time benefit other groups. Policies like this are the types that deprive you of your way of life, your values, or culture." They were then told they would need to write about the policy: "Then, write between three and ten sentences about that political policy which benefits other groups while depriving you and the group you belong to. Take a moment to describe the behavior or opportunity that would be beneficial to your way of life if it weren't for that policy." They were also offered some suggestions regarding relevant political domains: "Relevant political domains might include equality, healthcare, national security, voting laws, criminal reform, fiscal policy, or perhaps local political issues in your area." After taking two to three minutes to write about their self-generated policy, they continued to the dependent measures.

The control condition paralleled the experimental condition to minimize introducing confounds. In this condition, participants were asked to think about "policies that have no impact

on a group you belong to. Policies like this are the types that seem totally irrelevant to your way of life, your values, or culture." For the writing portion of the prompt they were told: "Then, write between three and ten sentences about that political policy which you and your group are unaffected by. Take a moment to describe why you think the policy is irrelevant to you and your group." They were again provided the same suggested list of political domains since the goal was to compare political policies that were perceived as relevant vs. irrelevant, rather than comparing political to non-political policies: "Irrelevant political domains might include equality, healthcare, national security, voting laws, criminal reform, fiscal policy, or perhaps local political issues in your area." After taking two to three minutes to write about their self-generated policy, they continued to the dependent measures which closely parallel Study 1.

#### Measures

## Anger

Anger was measured on a 0 (No Anger) to 100 (Extremely Angry) thermometer scale using one item: "How angry do you feel, if at all, about the political issue you thought about?" The item was intended to capture anger over the perceived unfairness associated with the negative social consequences of their self-generated political policy.

## Attractiveness of Alternatives

Attractiveness of alternatives was again assessed as a correlate of reactance and reactionism. Increased preferences of policy based treatment should be greater after freedom threats when compared to the irrelevant policy condition. Participants responded to one item: "Would you like it if you and your group benefitted more from the political policy?" on a 1 (Not at all) to 9 (Very much) scale.

#### Motivational Striving

Another correlate of reactance and reactionism is motivational striving. This was assessed by having participants respond to one item: "How much effort would you be willing to put into changing the political policy?" on a 1 (Not at all) to 9 (Very much) scale. Increased motivational striving should be greater after freedom threats when compared to a neutral condition.

#### Preference for the Status Quo

Using a 1 (*Not at all*) to 9 (*Very much*) scale, four items assessed participants preference for the status quo: "Are current political policies good?," "Are the people currently in control making society better?," "Should we keep things the way they are right now?," and "Should we protect our current policies from being changed?" Greater rejection of the status quo should reflect a preference for change, a logical precursor to preferring something new or from the past. These four items demonstrated reasonable internal consistency,  $\alpha = .79$ , and were combined to form a single composite.

## Reactionism: Preference for the Status Quo Ante

Reactionism again consisted of four items that paralleled preferences for the status quo, but instead were framed as a preference for the past. Using the same 1 (*Not at all*) to 9 (*Very much*) scale as previous items, these four items were: "*Were political policies better in the past?*," "*Were things better back when your group had more power?*," "*Should we go back to letting politicians that support your group make policy?*," and "*Should we prevent our policies from the past from being lost?*" Higher scores on this critical dependent measure should reveal the preferences that participants have for the past after faced with threats to freedom. These four items demonstrated reasonable internal consistency,  $\alpha = .76$ , and were combined to form a single composite.

## Preference for New Policies in the Future

To provide a better description of participant's attitudes toward policy change, these study participants also indicated their preference for new policies in addition to preferences for the status quo or past policies. The following four items were used: "Should we make new political policies going forward?," "Should power be given to people that support your group in the future?," "Should policies in the future be different than what we've had before?," and "How much should future policies be different from what we've had?" While no specific predictions were made regarding participants preference for new policies, it follows from reason that those who reject the status quo and the past might look forward to the future for novel change toward progress. These four items demonstrated reasonable internal consistency,  $\alpha = .73$ , and were combined to form a single composite.

## Manipulation Checks

To assess the effect of the relative deprivation manipulation participants were asked: *Are you and your group being deprived of the influence they deserve?* And although responsibility and longevity were not manipulated, they were still assessed to ascertain whether participants self-generated perceptions of low responsibility (*Are you and your group responsible for the difficulties they face when making policy?*) and greater longevity (*Have you and your group been losing power for a long time?*) when faced with relative deprivation. These three items used the same anchors as all other items: 1 (*Not at all*) to 9 (*Very much*).

#### Attention Check and Demographics

After submitting the survey participants open ended responses were individually checked for attention to the instructions for the task, see participants section for more information. At the end of the survey, they reported their age, gender, and ethnicity, as well as general, social, and

economic political ideology on a 1 (*Very Liberal*) to 9 (*Very Conservative*) scale, and finally their political party (*Democrat, Republican, Libertarian, Independent, Other*).

Finally, participants were provided a debriefing statement (see Appendix D) revealing the purpose of the study. Specifically, the debriefing statement explained that the personality measure is bogus and that their personality was never assessed. After which, they were forwarded to the compensation page to provide their secret key and receive payment.

#### Results

#### **Manipulation Check**

The manipulation check for perceived deprivation indicated that those in the deprivation condition (M = 6.1, SD = 2.4, n = 105) compared to those in the non-deprivation condition (M = 4.0, SD = 2.8, n = 83) were more likely to perceive deprivation, t(186) = -5.8, p < .001, d = 0.86.

Next, self-generated perceptions of longevity were tested by comparing those in the deprivation condition (M = 6.0, SD = 2.5, n = 105) with those in the non-deprivation condition (M = 4.7, SD = 2.4, n = 83). Those induced to perceive deprivation reported greater longevity of their circumstances than those thinking about irrelevant non-depriving policies, t(186) = -3.4, p < .001, d = 0.5. The item capturing perceived responsibility yielded no differences (p = .56) between those in the deprivation condition (M = 3.8, SD = 2.6, n = 105) and those in the non-deprivation condition (M = 4.0, SD = 2.6, n = 83).

#### **Primary Analysis**

To preserve statistical power the initial test was a direct test of the predictions that anger, attractiveness of alternatives, motivational striving, and preference for the past were greatest when participants were induced to feel relatively deprived when compared to others who are better off. Further, preference for the status quo should be reduced when participants feel

relatively deprived. A final central prediction was that the effects would hold for people across the political spectrum as a way of differentiating reactionism from political conservatism. However, should only those higher in conservatism express increased preferences for the past, then this study would provide empirical evidence that reactionism may be circumscribed to conservatives.

## Anger

The main effect test of deprivation on anger supported the prediction, t(186) = -10.5, p <.001, d = 1.54, that those induced to feel more deprived (M = 66.7, SD = 30.2) reported greater anger than those in the non-deprivation condition (M = 21.8, SD = 28.4). To assess the second anger related prediction, that levels of anger would not vary as a function of ideology among

Ideology and Anger by Deprivation 100 75 Deprivation 0 50 1 25 2.5 5.0 7.5 Ideology

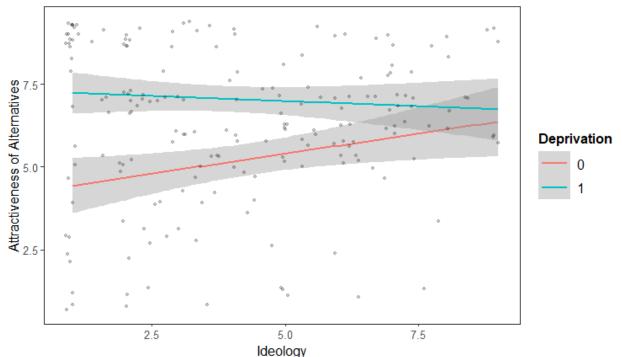
Figure 3

those induced to feel deprived, the dummy coded condition, ideology, and their interaction term were regressed onto anger and yielded a non-significant interaction term (p = .40).

## Attractiveness of Alternatives

The main effect test of deprivation on attractiveness of alternatives supported the prediction, t(186) = -5.79, p < .001, d = 0.85, that those induced to feel more deprived (M = 7.1, SD = 2.0) reported greater attractiveness of alternatives than those in the non-deprivation condition (M = 5.3, SD = 2.3). To assess the second related prediction, that attractiveness of alternatives would not vary as a function of ideology among those induced to feel deprived, the dummy coded condition, ideology, and their interaction term were regressed onto attractiveness and yielded a significant interaction term (p = .02). However, the simple slope of ideology and

Figure 4
Ideology and Attr. of Alts. by Deprivation

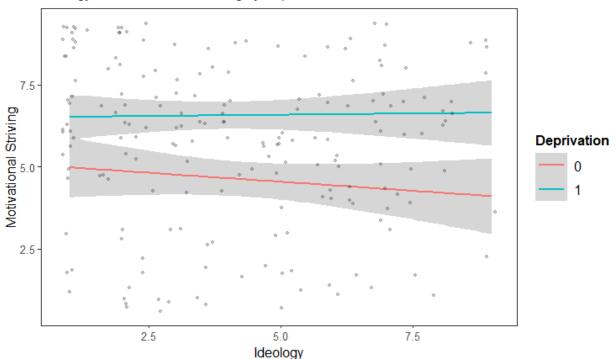


attractiveness of alternatives in the deprivation condition was non-significant (r = .07, p = .50) supporting the prediction that preferences for alternative treatment would not vary by ideology when people felt relatively deprived.

## Motivational Striving

The main effect test of deprivation on motivational striving supported the prediction, t(186) = -5.87, p < .001, d = 0.87, that those induced to feel more deprived (M = 6.5, SD = 2.1) reported greater motivational striving than those in the non-deprivation condition (M = 4.6, SD = 2.4). To assess the second related prediction, that motivational striving would not vary as a function of ideology among those induced to feel deprived, the dummy coded condition, ideology, and their interaction term were regressed onto motivational striving and yielded a non-significant interaction term (p = .38).

Figure 5
Ideology and Motivational Striving by Deprivation



## Preference for the Status Quo

The main effect test of deprivation on status quo preferences did not support the prediction, t(186) = 0.96, p = .34, d = -0.14, that those induced to feel more deprived (M = 3.8, SD = 1.9) would report less status quo preferences than those in the non-deprivation condition (M = 4.1, SD = 1.7). However, descriptively, the means trended in the predicted direction. To assess the second related prediction, that status quo preferences would not vary as a function of ideology among those induced to feel deprived, the dummy coded condition, ideology, and their interaction term were regressed onto status quo preferences and yielded a non-significant interaction term (p = .77). Instead, there is a clear main effect of ideology. Across both conditions greater conservatism was associated with more status quo preferences.

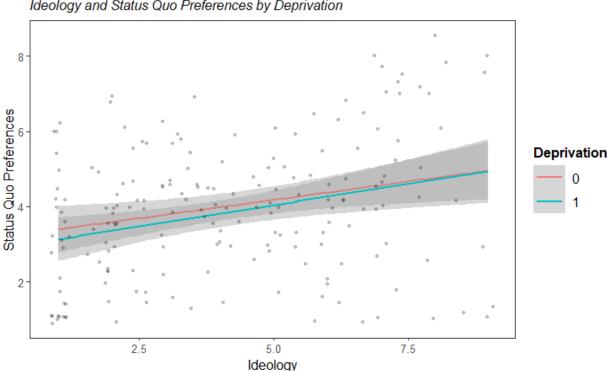
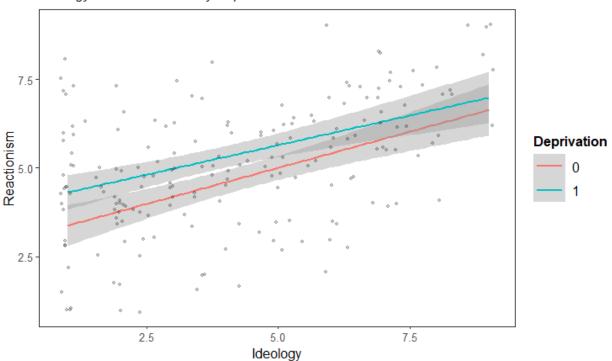


Figure 6
Ideology and Status Quo Preferences by Deprivation

## Reactionism: Preference for the Status Quo Ante

The main effect test of deprivation on reactionism supported the prediction, t(186) = -2.1, p = .04, d = 0.31 [0.02, 0.6], that those induced to feel more deprived (M = 5.3, SD = 1.7) would report greater preferences for the past than those in the non-deprivation condition (M = 4.8, SD = 1.8). However, the effect size fell short of the effect size that was predetermined by sensitivity analysis (d = 0.4) so this effect should be interpreted cautiously. To assess the second related prediction, that status quo preferences would not vary as a function of ideology among those induced to feel deprived, the dummy coded condition, ideology, and their interaction term were regressed onto reactionism and yielded a non-significant interaction term (p = .45). Instead, there is again a clear main effect of ideology (see figure 7), but also the main effect of deprivation on reactionism held after controlling for ideology and the interaction term (p = .03).

Figure 7
Ideology and Reactionism by Deprivation



#### **Summary of Primary Analysis**

With the exception of status quo preferences, all predictions were supported by the data notwithstanding the reactionism effect that fell just short of that determined by sensitivity analysis. Additionally, with the exception of status quo preferences and reactionism, ideology did not predict outcome variables in the deprivation condition. This is consistent with theorizing that looking back in order to move forward—reactionism—is not necessarily a phenomenon exclusive to those who identify higher in conservatism.

## **Exploratory Analysis**

#### **Correlations**

For the full correlation table see Appendix G. Correlation analysis again revealed that all of the primary outcome variables were significantly correlated in a theoretically consistent manner. For example, higher anger predicted greater attractiveness of alternatives, motivational striving for change, and reactionistic preferences for the past. Reactionism was positively associated with attractiveness of alternatives, motivational striving, status quo preferences, conservatism, but also age.

#### Mediation

Consistent with theorizing, several mediation effects emerged. First, and related to the overall goal of this research, it was expected that anger should explain increased reactionism in response to deprivation. This expectation held,  $R^2 = .09$ , F(2, 185) = 9.71, p < .001, as the total effect (b = 0.55, t(186) = 2.1, p < .001) fell to non-significance when controlling for anger (b = 0.19, t(185) = -.59, p = .55) indicating full mediation. Anger also partially mediated  $R^2 = .17$ , F(2, 185) = 19.3, p < .001 the link between perceived deprivation and attractiveness of alternatives as the total effect (b = 1.79, t(186) = 5.79, p < .001) weakened when controlling for

anger (b = 1.3, t(185) = 2.11, p = .036). However, anger again fully mediated  $R^2$  = .32, F(2, 185) = 43.93, p < .001 the link between perceived deprivation and motivational striving as that total effect (b = 1.96, t(186) = 5.87, p < .001) fell to non-significance when controlling for anger (b = 0.42, t(185) = 1.11, p = .27). A final multiple mediation analysis was conducted assessing anger, attractiveness of alternatives, and motivational striving as explanatory mechanisms for reactionism  $R^2$  = .26, F(4, 183) = 15.94, p < .001. The total effect (b = 0.55, t(186) = 2.1, p < .001) of deprivation of reactionism was in fact reversed when controlling for these three mediators (b = -0.64, t(183) = -2.16, p = .03 indicating a potential suppression effect. However, this effect is not interpretable without further research. Overall, including anger in the model as an explanatory mechanism for reactionism and its antecedents provided tentative support for theorizing given that these analyses were not the central goal of the research and were not adjusted for familywise error potential.

## Future Preferences

A final set of exploratory analysis involves addressing participant's preference for change to the future. While not a central goal of the research, it is reasonable to expect that some individuals may reject the past as having failed to provide adequate solutions to political problems. And should they also reject the status quo, novel policy in the future would be the only recourse. Consistent with this reasoning, inducing participants to perceive deprivation (M = 7.0, SD = 1.4) when compared to those thinking of irrelevant policies (M = 6.3, SD = 1.2) were more likely to endorse a preference to change to new policies t(186) = -3.6, p < .001, t = 0.53. This effect was not moderated by political ideology t = 0.78. However, ideology had a small negative association with future preferences t = 0.15, t = 0.02 even after controlling for the effect of deprivation and the interaction term. Anger again fully mediated this effect t = 0.15, t = 0.15

15.94, p < .001 as the total effect (b = 0.73, t(186) = 3.6, p < .001) feel to non-significance when controlling for anger (b = 0.09, t(185) = 0.39, p = .69). This indicates that those more likely to identify as liberal are somewhat more likely to look to the future when seeking policy change, but not because they feel politically deprived. Instead, individuals across the political spectrum are equally likely to look to the future for change when they feel deprived relative to others, and it is because they, at least in part, are angry.

Deprivation

2.5

5.0

Ideology

1.5

Ideology

1.5

Ideology

1.5

Figure 8
Ideology and Preference for New Policy by Deprivation

Note: Deprivation = 1, Control = 0, Higher scores for Ideology equal more conservatism and lower scores equal more liberalism

#### **Study 2 Discussion**

The goal of this study was to isolate the effect of what is thought to be a primary causal factor in driving people's perception that the past offers solutions for the future: relative deprivation. Another primary goal was to address the possibility that only those higher in self-reported conservatism would perceive the past as viable. These data indicate relative deprivation

is indeed sufficient to drive reactionistic preferences and motives, and that anger works as an affective mechanism in driving reactionism. To the extent that people feel they are being deprived they feel angry, and that increased anger motivates more positive perception of alternatives to their circumstances, greater motivation to contribute to the solution, more positivity toward the past, and the belief that the past offers lessons for the future. However, this pattern of effects is not limited to those who might have a chronic affinity for the past, conservatives. Ideology was consistently unrelated to the outcomes of interest for those who felt deprived. This indicates that perhaps ideology is only a guide post for predicting *which* policies might make people feel deprived. In other words, ideology provides the content, but the cognitive and affective coping mechanisms people rely on when faced with political threat cross ideological boundaries.

#### **General Discussion**

Taken together, these two studies served several functions. First, they allowed for a test of theoretically implied factors: perceived responsibility, longevity of the threat, and perceived relative deprivation, as causal variables for reactionism. In Study One, using a minimal group paradigm so as to create an ideologically neutral context, participants were told they faced personality-based disadvantages. They were further informed that personality is determined by either genetics, implying no responsibility over personality, or choices, implying high responsibility over personality traits. Participants were then informed that these personality-based disadvantages had begun over the last decade, or had persisted for many decades in attempt to manipulate the intractability of the problem. Last they were told that people with different personalities were treated the same, or that others are treated better which implies a state of being relatively deprived of equal treatment compared to others. It was predicted that the

less responsibility is perceived, the longer the threat has persisted, and importantly, the more relatively deprived they feel compared to others, the more anger people should experience due to perceiving an unfair and intractable threat. It was further predicted that this anger would drive a greater desire for better treatment and a greater motivation to contribute to obtaining better treatment. However, in Study 1 the manipulations failed to elicit relative differences in anger, choice preferences, motivation, and reactionism. Exploratory analysis revealed tentative evidence that anger could potentially link these outcome variables lending modest support to my theorizing (but see Limitations, discussed below). In addition to a failed manipulation, it is possible that reactionism is limited to a political domain and an apolitical personality context did not provide a context for reactionism to emerge. This was addressed in Study Two.

The second study narrowed its focus by only toggling one of the theoretically relevant variables, relative deprivation. This was done within an ideological context to create the perception of political deprivation. The study took an idiographic approach allowing participants to generate their own political issue that has persistently put them at a disadvantage compared to others. Relative deprivation (Crosby, 1976) is theorized as a key driving force for reactionism due to the implied unfairness of others getting better treatment. This perception was expected to be powerful enough to drive the anger that could motivate the intention to contribute to change. But importantly, it was considered powerful enough to drive the perception that the past must have been better and thus hold the solution to the problem. If disadvantages are getting worse over time, it stands to reason that there must have been a time before the disadvantages begin that could be resurrected. In a political context where the details of the past are unknown are at least murky, people are potentially free to exaggerate the positivity of the past. Indeed, because people were angry, preferred different treatment, and were motivated to contribute to change, the

past became a more attractive alternative compared to those who were thinking about political contexts that are irrelevant to their life.

A secondary goal of this study was to establish that ideology does not limit who will see the past as attractive. As such, ideology did not predict who would find the past more attractive. Those across the ideological spectrum were equally likely to express reactionistic intentions and perceptions. This does not mean that a political context did not matter, considering that a apolitical context in Study 1 failed to elicit increased reactionism. Rather, within a political context where participants are able to generate their own relevant policies, ideology was unrelated to the resulting reactionism in face of policies that confer disadvantages.

The broader implication of study two is that reactionism is driven by threats to group identity and status, but perhaps most pointedly, threats to ideologically relevant identities and status. Ideologies predict prejudice (Chambers et al., 2012) by liberals and conservatives toward each other, they predict lifestyle differences (Carney et al., 2008), and they predict differences in parenting styles and interpersonal interactions (Lakoff, 2004). Ideology appears to be an increasingly meaningful difference around which people are organizing their lives.

Understanding the way ideological actors respond to threats, and the political implications of these threat responses will help to explain and predict the trajectory of the on-going ideological culture war that has been raging for decades (Prothero, 2016). But the data from Study 2 suggests that while ideology may populate the content by which people may perceive threat, it does not explain how people cognitively and affectively respond to threat.

#### **Theoretical Implications**

This research extends reactance theory (Brehm, 1967) by demonstrating that threats to freedom, particularly political freedoms, that are broader and longer lasting than the acute threats

typically explicated by reactance theory, can elicit similar motivational striving towards restoring lost freedoms. It further extends reactance by demonstrating that part of coping with the broader freedom threats may include generating the perception that there must have been a time in the past when these freedoms weren't restricted, even when no evidence is available to validate that perception. This couches reactionism as an affective-cognitive process akin to rationalization of outrage. In the face of protracted and unfair treatment, there must be a solution. The longer term nature of these threats may imply that if a solution has not been found yet then there must have been a time before the problem began, and that is where the solution must lie. While overly simplistic in nature and flawed due to overwhelming evidence that for most quality of life has improved dramatically over the decades (Pinker, 2018), such a belief may help sustain the anger and motivation needed to seek respite from perceived threats to freedom. From this perspective, reactionism may be an outlet for those who don't want to give up in the face of prolonged threat. As such, it lends itself to politically expedient leaders who seek to leverage outrage for political gain. Anecdotally, the persistence of "Trumpism" in light of allegations of election fraud against the former President Donald Trump, speaks to the desperation of working class people in the U.S. looking for a path forward from their economic stagnation.

Looking back to move forward isn't likely to apply to everyone. It is less likely that, for example, Black/African American's would look to the past where disadvantages were measurably greater as a solution. But perhaps that's not true for all members of the Black/African American community. Some may lament the loss of those like Martin Luther King Jr. who dedicated their lives to advocating for civil rights and ultimately paying the highest price in the pursuit of freedom. As such, some marginalized group members may seek to resurrect a perceivable or imagined unity and strength of the civil rights movement, perhaps overlooking the

fractured nature of the movement. To this point, research in system justification theory has found that marginalized group members will sometimes seek to justify the status quo by trivializing disadvantages (e.g., poor but happy, rich but unhappy; Kay et al., 2009). Those who system justify may not feel the same sense of outrage due to disadvantages perceiving those disadvantages as partially mitigated via stereotypes.

Another important implication of this research is that reactionism is a strictly political phenomenon. The minimal group paradigm failed to generate the predicted pattern of effects when individuals were faced with personality-based disadvantages. However, maybe such disadvantages weren't believable. A limit of the study was that participants weren't asked how much they believed that they suffered from such disadvantages. Perhaps an idiographic approach to personality-based disadvantages would have made the problem more relevant for participants. This is an unfortunate oversight since Brehm (1967) articulates the importance of personal relevance for freedom threats. People should not experience reactance over the loss of a freedom (i.e., the right to be authentic) if that freedom is not cherished. Moreover, some people may believe that we have a responsibility to limit the expression of personality for the sake of social cohesion or that it is our responsibility to "fit in" rather than be accepted (Becker et al., 2012). Perhaps future researchers will find a non-political context that will satisfy the personal relevance criteria while creating an ostensibly believable long-term disadvantage.

This research also contributes to a broader literature on motivated social cognition (Kruglanski, 1996; Jost, 2019) and compensatory responding in the face of threatened psychological needs (McGregor et al., 2010). Theories of motivated social cognition and compensatory responding postulate that when basic psychological needs (e.g., epistemic certainty, relational belongingness, existential meaning) are threatened, people may respond by

changing their cognitions. According to my conceptualization of reactionism, people can sustain their anger toward, and motivation to change the status quo through a motivated reframing of the past. When faced with economic, political, or social uncertainty, the need to restore epistemic certainty and reduce uncertainty induced anxiety (McGregor et al., 2010) toward the future, while also feeling legitimized in the perception of threat, can potentially lead to a strategic reconstrual of the past where the past confers the benefits that are perceived to be lost.

Affiliating with reactionary political groups may also resolve relational and identity threats. Researchers have demonstrated that endorsing a group identity can also reduce feelings of uncertainty (Hogg & Adelman, 2013). This effect can be more pronounced under conditions where societal uncertainty is extreme (e.g., war), and when a prospective group has a salient prototypical member (i.e., a leader) that clearly defines group norms surrounding beliefs and behaviors. Indeed, more extreme conditions appear to be associated with affiliating with more extreme groups (Hogg & Adelman, 2013). It can be argued that President Trump was a perceivable strong leader with a relatively clear and consistent message regarding the need to recreate America into something great again. By endorsing President Trump and his political subversions people may have reduced uncertainty regarding the legitimacy of their group memberships and identity. Moreover, they may have believed that they found a leader who would close the gap between the advantages that liberals appear to enjoy over conservatives (Mummendey et al., 1999; Prothero, 2016).

A final noteworthy implication of reactionism is that intergroup comparisons may play a prominent role in perceptions of threat, judgments of change, and downstream political consequences. As mentioned, relative deprivation theory describes the tendency for people to compare ingroup outcomes to outgroup outcomes (Mummendey et al., 1999). Referent cognition

theory, an offshoot of relative deprivation theory, posits that people simulate alternative realities (Kahneman & Tversky, 1981) and compare against the state quo. To the extent that simulated outcomes (i.e., what *could* have been) are perceived as more positive than the status quo, resentment may result, especially if outgroups are perceived as receiving the benefits conferred in the simulated alternative (Folger, 1986). This is a reasonable cognitive-affective framework for explaining how social comparisons may contribute to reactance induced anger, especially when considered in the context of the changing norms and values associated with political correctness which perceivably limit personal freedoms.

#### Limitations

Several opportunities for improvement present themselves in these studies. First, as previously discussed, the minimal group paradigm did not elicit the predicted pattern of effects and there are two likely possibilities for this. First, the context may not have been believable for participants. Either they did not believe that they suffer from personality-based disadvantages, or more broadly, that personality-based disadvantages exist. This could have partly been due to the shortened minimal group paradigm induction. Typically, people write about their assigned group to reinforce group membership. But in the interest of time this common step in the procedure was not administered. Unfortunately, the extent to which they found the personality assessment and feedback to be believable was not assessed. However, even if they did find the assessment believable, personality-based treatment may not be a personally relevant concern when compared to other issues, like gender or class-based treatment. An interesting question that arises from this possibility is whether people would politicize an issue should they be given the opportunity to self-generate a disadvantage. It may be that semantically, thinking of disadvantages elicits political or policy-based concerns.

With that in mind, the second likely explanation for the failed manipulation is that political issues have characteristics that lend themselves to the anger and outrage that is necessary to drive reactionism. Political context have an inherent collective action or common fate aspect that imply a lack of personal control. The lack of personal control may be necessary for people to perceive the unfairness associated with being relatively deprived. Not only are other people potentially having better outcomes that result from policy making, but an inability to promote themselves and compete over advantages may drive a sense of injustice that can be characteristic of anger and outrage. The relatively clear and consistent effects from Study Two indicate that reactionism is particularly responsive to political disadvantages. Future research should address the extent to which personal control, much like personal responsibility, over outcomes may contribute to political outrage and reactionistic perceptions and motivations.

Despite the clear pattern of effects from Study Two, the study was not without its limitations. First, the sample was underpowered and as such the study should be replicated with a larger sample. Second, while the study isolated relative deprivation as a critical factor for causing reactionism, the test did not allow for teasing apart the conceptual distinction between reactance and reactionism. Reactionism is theorized to conceptually extend reactance by capturing a compensatory response to broader and longer lasting threats to freedoms, characterized by conferring positivity to the past. The relative deprivation induction encouraged participants to think of these broader political disadvantages, but did not contrast that threat against a shorter-term more acute threat typically associated with reactance. Theorizing would predict less reactionism, specifically less positivity toward the past, in response to shorter-term more acute threats when compared to longer-term broader threats. However, it may be the case that perceiving the past as more positive in the face of freedom threats is an inherent outcome of

reactance since an acute threat to freedom implies a loss to a recently obtainable freedom. As such, the past that came prior to the threat was in fact perceivably better than a present with less freedom.

This logic makes reactionism and reactance difficult to disentangle. Perhaps reactionism could be tested in a political context where the positivity of the past is irrational. For example, leading people to believe that access to health care is worse (compared to others) over the last several decades may cause some people to believe that overall health care quality was better in the distant past, which is empirically false. Such a context might help highlight the exaggerative effect of reactionism as a rationalization process for legitimizing the perception of lost freedom over time.

#### The Future of Reactionism

Perceptions of decline are persistent. In 2013, Pew Research reported that 65% of U.S. citizens and 68% of U.K. citizens were dissatisfied with the direction their country was going, which was consistent with a 2007 survey. In 2019, 64% of U.S. citizens and 76% of U.K. citizens expressed dissatisfaction (Pew, 2019). The COVID-19 pandemic is expected to push 10 million people in Europe and North America into poverty by late 2021, and more than 100 million across the other continents (World Bank, 2020). Currently in the U.S., there are an estimated 3.56 million people who have been designated as long-term unemployed since the start of the pandemic, and there are currently 10 million fewer jobs available when compared to prepandemic levels (U.S. Bureau of Labor Statistics, 2020).

These statistics are dire. They indicate continued and perhaps increased social dissatisfaction. And as the pandemic induced economic hardships hit more households, any disconnect between personal well-being and societal well-being may begin to shrink. At some

point, people may perceive the past accurately when they claim things were once better. Does that mean reactionism no longer applies? While it may no longer be the case that people are inventing a standard of comparison in the past that legitimizes perceived threats, people will still likely respond the same way, by striving for change *to when* things were better. And it is likely that politicians will recognize this discontent, and as they have for centuries seek to leverage it either because they believe they can genuinely help, or because they seek power.

Either way, appeals to the past may become a mainstay of U.S. and European politics for the foreseeable future. And the anger and subsequent motivation to resurrect a real or imagined past may continue to propel political leaders toward greater power. And as such, reactionism will continue to guide our understanding of this process and help us to anticipate the downstream consequences. But considering the flexibility of reactionism as a process that can organize collective behavior, we shouldn't be surprised if new and unexpected manifestations arise in the tumultuous road forward through the pandemic era and beyond.

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#### Footnotes

In previous version of Study 2 participants were asked to rank eight policies on a list based on how positive they were towards the policy because they believed it provided them the most support. The lowest ranked policy was to be the most negative and unsupportive. In a later task they were asked to read about a tradeoff about their most supported policy. This made them feel like they supported a harmful policy. This was an unintentional error since the framing was meant to make them feel like they were being harmed by the tradeoff. As a result, the manipulation failed to produce the desired experience for participants. Exploratory analysis revealed no main effects. Although, there were correlations between the outcomes measures consistent with the correlations observed in Study 1 which is reported above. Due to the misunderstanding of the instructions, a second study using an idiographic approach was designed which eliminated the ambiguity in the stimuli. That study is reported above as Study 2.

## Appendix A

## Study 1

#### CONSENT TO PARTICIPATE IN AN EXPERIMENTAL STUDY

TITLE: Personality Assessment and Outcomes

RESEARCHER(S):
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COMPLIANCE CONTACT PERSON: Ro Windwalker, IRB Coordinator Office of Research Compliance 109 MLKG 1424 W. Martin Luther King, Jr. Fayetteville, AR 72701 (479)575-2208 irb@uark.edu

RESTRICTIONS: You must be at least 18 years old to participate in this experiment.

PURPOSE: This experiment is about how our perceptions of time and groups affect our attitudes.

DURATION: This study should take no longer than 10 minutes.

DESCRIPTION: In this study, you will be asked to think about personality, and then answer some questions about your thoughts and attitudes.

RISKS AND BENEFITS: There are no anticipated risks to participating in this study. The benefits include earning \$1.00 compensation to be credited to your account and contributing to psychological research about how our perceptions of personality are related to our thoughts and attitudes. Participation may also give you insight into how psychological research is conducted.

VOLUNTARY PARTICIPATION: Your participation in this research is completely voluntary. While payment for participation in this study is guaranteed for those who provide the correct completion code, you are not obligated to participate, and you may leave any of the questions blank if you wish.

CONFIDENTIALITY: Your name will not be collected; all of your responses will be recorded anonymously. All information you provide will be kept confidential to the extent allowed by law and University policy. Results from this research will be reported as aggregate data.

RIGHT TO DISCONTINUE: You are free to refuse to participate in the research and/or to discontinue this study at any time. Your decision to discontinue will bring no negative consequences—no penalty to you. If you choose to discontinue at any point during the experiment you will need to advance the survey to the end of the study regardless in order to provide your completion code and receive compensation.

INFORMED CONSENT: I have read the description, including the purpose of the study, the procedures to be used, the potential risks and benefits, the confidentiality, as well as the option to discontinue participation at any time. I believe I understand what is involved in this study. By selecting "agree and continue to study" below, I am indicating that I freely agree to participate in this study.

By clicking below you are providing consent to participate in our study.

| Click    | "agree and continue to study" below to indicate your consent.  |
|----------|--|
| $\wedge$ | , and the second of the second |
| <b>1</b> | Agree and continue to study  |

## Study 2

#### CONSENT TO PARTICIPATE IN AN EXPERIMENTAL STUDY

TITLE: Perceptions of Political Tradeoffs

RESEARCHER(S):
Derrick F Till, M.A.
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COMPLIANCE CONTACT PERSON: Ro Windwalker, IRB Coordinator Office of Research Compliance 109 MLKG 1424 W. Martin Luther King, Jr. Fayetteville, AR 72701 (479)575-2208 irb@uark.edu

RESTRICTIONS: You must be at least 18 years old to participate in this experiment.

PURPOSE: This experiment is about how our perceptions of political policies affect our attitudes.

DURATION: This study should take no longer than 10 minutes.

DESCRIPTION: In this study you will be asked to think about political phenomena, and then answer some questions about your thoughts and attitudes.

RISKS AND BENEFITS: There are no anticipated risks to participating in this study. The benefits include earning \$1.00 compensation to be credited to your account and contributing to psychological research about how our perceptions of political tradeoffs are related to our thoughts and attitudes. Participation may also give you insight into how psychological research is conducted.

VOLUNTARY PARTICIPATION: Your participation in this research is completely voluntary. While payment for participation in this study is guaranteed for those who provide the correct completion code, you are not obligated to participate, and you may leave any of the questions blank if you wish.

CONFIDENTIALITY: Your name will not be collected; all of your responses will be recorded anonymously. All information you provide will be kept confidential to the extent allowed by law and University policy. Results from this research will be reported as aggregate data.

RIGHT TO DISCONTINUE: You are free to refuse to participate in the research and/or to discontinue this study at any time. Your decision to discontinue will bring no negative consequences—no penalty to you. If you choose to discontinue at any point during the experiment you will need to advance the survey to the end of the study regardless in order to provide your completion code and receive compensation.

INFORMED CONSENT: I have read the description, including the purpose of the study, the procedures to be used, the potential risks and benefits, the confidentiality, as well as the option to discontinue participation at any time. I believe I understand what is involved in this study. By selecting "agree and continue to study" below, I am indicating that I freely agree to participate in this study.

By clicking below you are providing consent to participate in our study.

Click "agree and continue to study" below to indicate your consent.

## Appendix B

## **Personality Assessment for Minimal Group Task**

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. Strongly Disagree 1 2 3 4 5 Strongly Agree

| I see Myself as Someone Who                |  |
|--|--|
| 1. Is talkative                            | 23. Tends to be lazy                               |
| 2. Tends to find fault with others         | 24. Is emotionally stable, not easily upset        |
| 3. Does a thorough job                     | 25. Is inventive                                   |
| 4. Is depressed, blue                      | 26. Has an assertive personality                   |
| 5. Is original, comes up with new ideas    | 27. Can be cold and aloof                          |
| 6. Is reserved                             | 28. Perseveres until the task is finished          |
| 7. Is helpful and unselfish with others    | 29. Can be moody                                   |
| 8. Can be somewhat careless                | 30. Values artistic, aesthetic experiences         |
| 9. Is relaxed, handles stress well         | 31. Is sometimes shy, inhibited                    |
| 10. Is curious about many different things | 32. Is considerate and kind to almost everyone     |
| 11. Is full of energy                      | 33. Does things efficiently                        |
| 12. Starts quarrels with others            | 34. Remains calm in tense situations               |
| 13. Is a reliable worker                   | 35. Prefers work that is routine                   |
| 14. Can be tense                           | 36. Is outgoing, sociable                          |
| 15. Is ingenious, a deep thinker           | 37. Is sometimes rude to others                    |
| 16. Generates a lot of enthusiasm          | 38. Makes plans and follows through with them      |
| 17. Has a forgiving nature                 | 39. Gets nervous easily                            |
| 18. Tends to be disorganized               | 40. Likes to reflect, play with ideas              |
| 19. Worries a lot                          | 41. Has few artistic interests                     |
| 20. Has an active imagination              | 42. Likes to cooperate with others                 |
| 21. Tends to be quiet                      | 43. Is easily distracted                           |
| 22. Is generally trusting                  | 44. Is sophisticated in art, music, and literature |
|  |  |

## **Appendix C**

## Key (not visible to participants):

\${e://Field/Pers}: Green vs. Orange \${e://Field/orig}: genetics vs. choices \${e://Field/Resp}: are vs. are not

\${e://Field/Long}: recently, over the last 10 years vs. for a long time, over several decades

\${e://Field/Long2}: new vs. long standing

\${e://Field/same}: is also vs. is not \${e://Field/treat}: the same vs. better

## A brief description of your personality type: \$\{e://Field/Pers\}.

Personality has a greater impact on our lives than what most people think. But where do personalities come from?

Scientists have long debated about the origins of personality. After decades of research, almost all agree that personality is determined by \${e://Field/orig}. This means that we \${e://Field/Resp} fully responsible for the personality we develop throughout life.

This has important implications, especially considering that \${e://Field/Long} people with \${e://Field/Pers} personalities have been treated relatively poorly. Alarmingly, this \${e://Field/Long2} personality based prejudice seems to be on the rise.

For example, people with your \${e://Field/Pers} personality are sometimes viewed as too assertive. Accordingly, others may restrict your choices and limit your influence across a variety of situations, including work, church, and casual social gatherings. Sometimes these conflicts even extend to policing how people like you express yourselves politically or religiously. This \${e://Field/same} true for other personalities, they are often treated \${e://Field/treat}.

This is concerning evidence. While there is substantial evidence documenting prejudice based on gender, skin color, and sexual orientation, prejudice towards others based on common personality traits is not as well understood.

With this information in mind, please take a moment to think about whether you've noticed something like this in your past. We will have some questions about this later in the survey.

Please continue to the next page to answer some questions about what you've learned and how you feel.

#### Appendix D

Study 1

DEBRIEFING (after reading this page please click to the next page to close/finish the survey and receive your Secret Key, thank you!)

In this study we were interested in whether perceiving biases toward you based on your personality increases individuals positive perceptions to the past, and motivation to return to the past.

**PLEASE NOTE:** The personality assessment was fictitious, such that it was created solely for this study. We never computed any personality scores, so we cannot provide that information. We simply wanted to create a set of circumstances that may have elicited negative feelings over the way people are treated in an effort to assess how those negative feelings might affect their perception of change over time. The causes of personality are still not well understood. However, most psychologists agree that our personality reflects both genetic influences and environmental influences over the lifetime.

Because we hope to keep the true nature of this study concealed for future participants, we would really appreciate it if you did not tell anyone about this information. Otherwise, doing so might jeopardize the results of our study.

If you are interested in learning more about this research, you may contact:

Principal Researcher Derrick Till Psychology dftill@uark.edu Faculty Researcher Scott Eidelman Psychology eidelman@uark.edu

# Thank you again for your participation. Please continue to the next page for the Secret Key.

Study 2

DEBRIEFING (after reading this page please click to the next page to close/finish the survey and receive your Secret Key, thank you!)

In this study we were interested in whether perceiving political deprivation would change people's perception of the past. We tested this by asking some people to think about a policy that is depriving, and asking others to think about a policy that is irrelevant.

Because we hope to keep the true nature of this study concealed for future participants, we would really appreciate it if you did not tell anyone about this information. Otherwise, doing so might jeopardize the results of our study.

If you are interested in learning more about this research, you may contact:

Principal Researcher Derrick Till Psychology dftill@uark.edu Faculty Researcher Scott Eidelman Psychology eidelman@uark.edu

Thank you again for your participation. Please continue to the next page for the Secret Key.

<u>Please NOTE: If the secret key generator malfunctions, email me and if we are able to verify your responses and manually compensate you.</u>

Table 2
Study 1 Means, standard deviations, and correlations with confidence intervals

| Variable        | M     | SD    | 1                   | 2                | 3                | 4                | 5                | 6                   | 7                   | 8                   | 9                   | 10                  |
|-----------------|-------|-------|---------------------|------------------|------------------|------------------|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1. Age          | 33.85 | 10.29 |                     |                  |                  |                  |                  |                     |                     |                     |                     |                     |
| 2. Gender       | 0.64  | 0.62  | .04<br>[04, .12]    |                  |                  |                  |                  |                     |                     |                     |                     |                     |
| 3. Long. Con.   | 0.50  | 0.50  | 02<br>[10, .06]     | 04<br>[12, .04]  |                  |                  |                  |                     |                     |                     |                     |                     |
| 4. Resp. Con.   | 0.49  | 0.50  | .01<br>[07, .09]    | .01<br>[07, .09] | .01<br>[07, .09] |                  |                  |                     |                     |                     |                     |                     |
| 5. Dep. Cond.   | 0.50  | 0.50  | .02<br>[06, .10]    | 01<br>[09, .06]  | 01<br>[09, .07]  | .03<br>[04, .11] |                  |                     |                     |                     |                     |                     |
| 6. Anger        | 45.62 | 26.48 | .02<br>[06, .10]    | .06<br>[02, .14] | .05<br>[02, .13] | .03<br>[05, .11] | .02<br>[06, .10] |                     |                     |                     |                     |                     |
| 7. Att. of Alt. | 6.70  | 1.60  | 06<br>[14, .02]     | .02<br>[06, .09] | 01<br>[09, .07]  | 02<br>[10, .06]  | .05<br>[03, .12] | .33**<br>[.26, .40] |                     |                     |                     |                     |
| 8. Mot. Striv.  | 6.17  | 1.69  | .00<br>[07, .08]    | 03<br>[10, .05]  | 02<br>[10, .06]  | .01<br>[07, .09] | 04<br>[11, .04]  | .36**<br>[.29, .43] | .61**<br>[.56, .66] |                     |                     |                     |
| 9. S. Q. Pref.  | 4.50  | 1.70  | .01<br>[07, .09]    | 19**<br>[26,11]  | .02<br>[06, .10] | 00<br>[08, .08]  | .02<br>[06, .10] | .14**<br>[.06, .22] | .09*<br>[.01, .17]  | .22**<br>[.15, .29] |                     |                     |
| 10. React.      | 4.68  | 2.04  | .17**<br>[.09, .24] | 15**<br>[23,08]  | 06<br>[14, .02]  | .06<br>[02, .13] | .01<br>[06, .09] | .16**<br>[.08, .24] | .16**<br>[.08, .23] | .18**<br>[.10, .25] | .54**<br>[.48, .59] |                     |
| 11. Ideology    | 4.73  | 2.27  | .15**<br>[.07, .22] | 17**<br>[25,10]  | .00<br>[07, .08] | .02<br>[06, .10] | 01<br>[09, .06]  | .09*<br>[.01, .17]  | .09*<br>[.01, .16]  | .11**<br>[.03, .19] | .40**<br>[.33, .46] | .61**<br>[.56, .66] |

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## Table 2 cont.

Note. M and SD are used to represent mean and standard deviation, respectively. Gender coded for male = 0, female = 1; Longevity coded for decade = 0, decades = 1; Responsibility coded for choices = 0, genetics = 1; Deprivation coded for same treatment = 0, better treatment = 1; Ideology coded so conservatism is reflected by higher scores. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). \* indicates p < .05. \*\* indicates p < .01.

## Appendix F

Table 3
Study 2 Means, standard deviations, and correlations with confidence intervals

| Variable        | M     | SD    | 1                   | 2                   | 3                           | 4                   | 5                   | 6                   | 7                   | 8               |
|-----------------|-------|-------|---------------------|---------------------|-----------------------------|---------------------|---------------------|---------------------|---------------------|-----------------|
| 1. age          | 38.55 | 12.01 |                     |                     |                             |                     |                     |                     |                     |                 |
| 2. Deprivation  | 0.56  | 0.50  | 01<br>[15, .14]     |                     |                             |                     |                     |                     |                     |                 |
| 3. Anger        | 46.86 | 36.84 | .02<br>[12, .17]    | .61**<br>[.51, .69] |                             |                     |                     |                     |                     |                 |
| 4. Att. of Alt. | 6.26  | 2.29  | .06<br>[08, .20]    | .39**<br>[.26, .51] | .35 <b>**</b><br>[.22, .47] |                     |                     |                     |                     |                 |
| 5. Mot. Striv.  | 5.71  | 2.46  | .11<br>[03, .25]    | .40**<br>[.27, .51] | .56**<br>[.46, .65]         | .41**<br>[.28, .52] |                     |                     |                     |                 |
| 6. S. Q. Pref.  | 3.92  | 1.79  | 09<br>[23, .05]     | 07<br>[21, .07]     | 14<br>[28, .01]             | 02<br>[16, .13]     | 10<br>[24, .04]     |                     |                     |                 |
| 7. React.       | 5.06  | 1.78  | .19**<br>[.05, .33] | .15*<br>[.01, .29]  | .31**<br>[.17, .43]         | .46**<br>[.34, .57] | .29**<br>[.15, .41] | .23**<br>[.09, .36] |                     |                 |
| 8. Fut. Pref.   | 6.69  | 1.39  | .10<br>[05, .24]    | .25**<br>[.11, .38] | .38**<br>[.25, .50]         | .47**<br>[.35, .57] | .58**<br>[.47, .67] | 39**<br>[51,26]     | .19**<br>[.05, .33] |                 |
| 9. Ideology     | 4.15  | 2.36  | .15*<br>[.00, .28]  | 09<br>[23, .06]     | .03<br>[11, .17]            | .04<br>[10, .19]    | 07<br>[22, .07]     | .28**<br>[.14, .41] | .47**<br>[.35, .57] | 25**<br>[38,11] |

## Table 3 cont.

Note. M and SD are used to represent mean and standard deviation, respectively. Deprivation coded for irrelevant policy = 0, deprivation policy = 1; Ideology coded so conservatism is reflected by higher scores. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). \* indicates p < .05. \*\* indicates p < .01.



## Appendix G

March 6, 2018

#### **MEMORANDUM**

TO: Derrick Till

Scott Eidelman

FROM: Ro Windwalker

**IRB** Coordinator

RE: EXEMPT PROJECT CONTINUATION

IRB Protocol #: 16-04-683

Protocol Title: Reactionism

Review Type: 

EXEMPT

New Approval Date: 03/06/2018

Your request to extend the referenced protocol has been approved by the IRB. We will no longer be requiring continuing reviews for exempt protocols.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or <a href="mailto:irb@uark.edu">irb@uark.edu</a>