Snap judgements, emotion, and learning about politics

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August 25, 2022

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Introduction

> "All perceiving is also thinking, all reasoning is also intuition, all observation is also invention" - Rudolf Arnheim

Imagine we are at the airport and we see a bright red had with white lettering on it. You have well-trodden neurological paths of what the color red looks like, what a hat looks like, and what a hat with white lettering looks like. You are accessing associative memory to not just imagine what each of these pieces of information look like in isolation, but you likely have seen these features in combination before. So rather than just seeing these details, you likely are filling in other gaps too by relying on memory.

Memories are easier to retrieve if they are recent, contiguous (associated with other pieces of information), similar to the information that made them "hot", are reinforced, and have primacy over other pieces of information (Kahana, Diamond and Aka 2022). What this means is that the visual information of a red hat with white lettering likely spark memories by which you've recently seen a hat with similar features.

Given that you are reading a prospectus for a political scientist's dissertation, the contextual state you are in may have prompted you to imagine this hat as being related to politics in some way as opposed to belonging to an Arsenal F.C. fan. Because of its similarity with the "Make America Great Again" hat which have become a characteristic symbol of the Republican party in the post-Trump era, this information may have sparked your brain to access such a memory of what a MAGA hat looks like.

An important contextual feature of memory is the affective state by which you

associate with it. Memories are enhanced when they are "tagged" with affective information (Kensinger and Fields 2022). When converting perceived visual information to a memory, emotion moderates the encoding, consolidation, and retrieval stages (Kensinger and Fields 2022). This means that when you process the visual information of a red hat with white lettering, and you access memories which suggest that it should be a hat representing support for Donald Trump, you retrieve memories that are associated with and trigger a strong autonomic physiological reaction. In response, your brain will contact your limbic system to appraise that particular physiological response and to label it based on memories that associate physiological responses with an affective state (Valentino et al. 2011).

The link between affective state and physiological response encourages a corresponding behavioral response (Valentino et al. 2011). If you connect that the hat belongs to a Trump supporter, you may have a physiological reaction of feeling queasy, an increase in heart rate, and your hands may feel clammy. As these reactions are characteristic of disgust, you may feel an urge to avoid such a person.

It may be the case that when you board your plane, this person may be in the seat next to you. You realize that despite this urge for you to avoid them, you nonetheless will likely have to exchange a few niceties at the very least. So long as you avoid talking about politics, you might be able to escape without feeling any worse by managing to avoid getting in a disagreement with someone (Mutz 2006; Carlson and Settle 2022). Despite your best intentions, they begin talking to you, and they jump right into talking about baseball, your favorite sport! The conversation ends up being an engaging one. Your initial intentions of avoiding them are changing. Your initial negative evaluation of that person dissipates and may even turn into a positive one. This is likely short-lived however (Santoro and

Broockman 2022). This is because the memories associating a negative affective state with a Trump supporter are stronger than a brief conversation with one about a common interest, so that memory is crowded out and eventually purged as time goes on (Kahana, Diamond and Aka 2022).

The snap-judgement model expands upon the popular memory and online dual-processing models in political psychology. The snap-judgement model asserts that it is visual information such as color and shapes that individuals rely on first to process politically-relevant information. It is not limited to examining text-based information as is common in many political science experiments that rely on text-based vignettes. From an evolutionary perspective, humans are attuned and adept at detecting and finding meaning from images. From a neurological perspective, processing visual information is much faster as it occurs simultaneously in different parts of the brain as opposed to text which takes a more linear path (Vogel, Dickson and Lehman 1986). Some estimates suggest that visual information can take as little as 13 milliseconds to be perceived (Potter et al. 2014). Visual information is not just processed quicker, but it tends to have potency.

Visual information contains powerful meaning via affect. Visual information such as color contain important affective associations (Cimbalo, Beck and Sendziak 1978). Memory associated with affect pass through the limbic system which mean that they are often easily and quickly encoded, easier to consolidate by placing it in an associative memory network, and will be easier to retrieve later (Kensinger and Fields 2022). Simple visual information, like color, are referential in this way (Elliot and Maier 2012). Republicans report that they prefer "Republican red" more than they do than "Democratic blue"; it engenders an affective response that is rooted in identity.

Political symbology is common in politics and performs a significant role in shaping attitudes and behaviors. This symbology is often consumed in a variety of complex contexts. Strong partisans use yard signs as an expressive act which often succeed at generating valanced reactions from their neighbors (Makse, Minkoff and Sokhey 2019). Even in seemingly non-political ways, observing stereotyped cultural differences between Republicans and Democrats act as relatively accurate visual cues - such as the modal car in the driveway - of any given neighborhood to assume the partisan composition of those who live there (Hetherington and Weiler 2018).

Connecting the literature on affective memory to existing work in political science on visual information yields the snap-judgement model. Going back to the example of the "MAGA hat" exercise, the "laws" of recency, contiguity, and repetition (Kahana, Diamond and Aka 2022) would suggest that a simple prompt of red hat with white lettering would evoke a particular image. "MAGA hats" are a new but very prominent symbol representing the political views of the Trump-era Republican party. This means that it is easier to recall a "MAGA hat" than a hat with similar characteristics you may have seen years ago. With repetition, the connection is strengthened so that now, you are more likely to assume that I am describing a MAGA hat. As this visual information is encoded, so is the context. This means that when retrieving visual memories of a red hat with white lettering, contiguous neurological networks consolidating other visual information are retrieved as well. This means with memories of red hats with white lettering, you are more likely to recall other contextual information, e.g., the wearer of the hat and the meaning of the political views of those owning such a hat. As individuals have affective reactions to either congruent or incongruent political

views (?Druckman and Levendusky 2019), these memories should also be higher priority in that encoding, consolidation, and retrieval should be easier than other neutral visual information (Kensinger and Fields 2022).

The snap-judgement model expands upon extant theories of political information processing. The two leading theories of political information processing are Zaller's (1992) memory-based model and Lodge and Taber's (2013) online model. Both models present John Q. Public as a bayesian updater. The memory-based model presents JQP as one with a very weak prior that is amendable to change with new political information. The memory-based model presents JQP as one who evaluates this information rationally; that is, consciously. The online model suggests that JQP heavily relies on their priors and will largely ignore new information that is not congruent with the prior. It does this by arguing that new information sparks an automatic affective pre-conscious reaction that has downstream effects for the rest of the process. These models are agnostic to the type of information their models apply to.

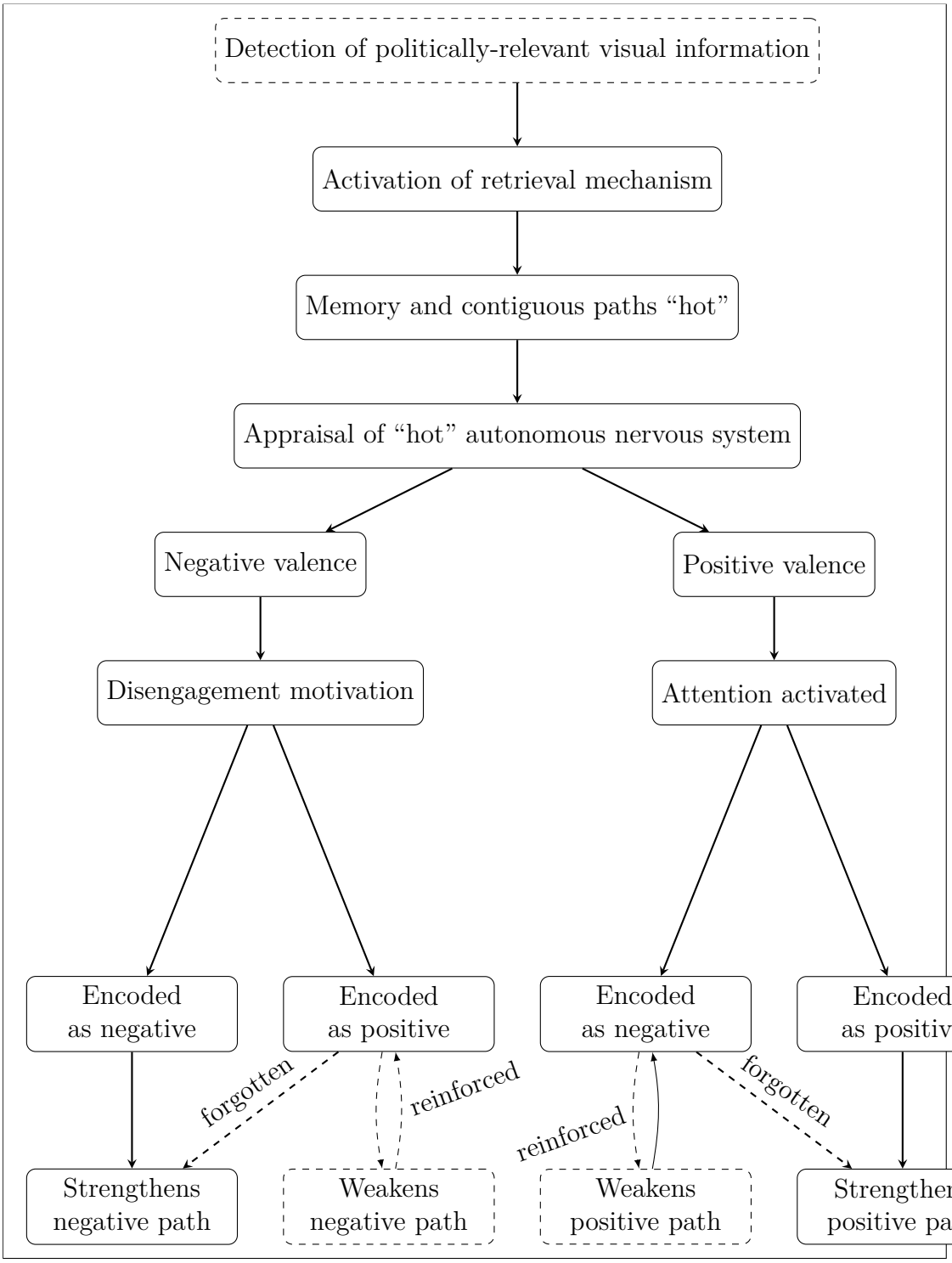
The snap-judgment model is also one that is largely rooted in the role of preconscious information processing. It agrees with the online model in that stimuli engender an automatic affective response which direct the neurological path for pre-conscious processing. It theorizes, however, about the way in which these snap-judgments are mediated by other information such as context and interactions with the stimulant. The implication of this is that rather than concluding with motivated reasoning and continued polarization of political attitudes, it suggests conditions under which learning and persuasion occur.

The snap-judgement model highlights a subsystem of information processing. Once an individual forms a snap-judgement, their priors will take over and the

affective reaction will activate a particular behavioral response. However, when incorrect appraisals or an intervening factor that attenuates the cognitive disengagement occurs, it may act as a valuable learning lesson that might have an opposite effect. As affective tagging of information can occur later (Kensinger and Fields 2022), a positive experience, despite a negative snap-judgement, may weaken the association of a visual object with a negative affective response. Some evidence suggests that such a mechanism is plausible (Santoro and Broockman 2022). As evidence suggests these depolarizing effects tend to be short term (Santoro and Broockman 2022), the snap-judgement model suggests that this is due to the case that such interactions are not often reinforced. Without reinforcement, those memories are purged and the dampening effects are removed (see Kahana, Diamond and Aka 2022). It may be the case, however, that these are not all too common as individuals tend to avoid engaging with an object representing ideologically incongruent positions (see Mutz 2006; Klar and Krupnikov 2016).

Figure 1 presents a summary of the snap-judgement model. This dissertation will examine snap-judgments as prompted by a number of different types of visual information. The first empirical chapter will examine the speed at which individuals process such individual information by examining their attention to information like color on political yard signs. The second empirical chapter will step back to examine more complex visual information by asking participants to form snap judgments of a neighborhood with varying characteristics. The final empirical chapter will examine the implications of such a model on informal political discussions as they are often seen as a valuable opportunity to reduce affective polarization and to encourage democratic norms (Levendusky and Stecula 2021; Santoro and Broockman 2022).

Figure 1: Snap-judgement model of politically-relevant visual information



Note: Dashed nodes represent the primary innovations of the snap-judgement model.

Outline of empirical chapters

Chapter 1

Argument

Can something as simple as color influence a campaign or even one's political attitudes? Political scientists have largely ignored such simple visual information despite their focus on party branding and communication strategies. One potential reason for this being is that the literature still largely disagrees over whether campaigns, on the whole, matter for shaping electoral outcomes and the attitudes of voters (Broockman and Kalla 2022). I argue, however, that though color may not determine electoral outcomes, it may still be an important piece of visual information that encourages learning by voters. I also test whether it influences how people respond to political surveys as they are often used for polls which are a cottage industry partially as a result of the popularity of election forecasting.

Since the 2000 election cycle, it has become commonplace for political candidates to rely on the colors red and blue as part of their campaign branding strategy. The use of the colors red and blue to distinguish between Republicans and Democrats on electoral maps became more common place starting in the 1970's (Elving 2014). Outside of this, the literature connecting simple visual information and color is relatively sparse. I attribute this to most studies used in political psychology as focusing on the generalizability of their treatments and for the theories to focus on visual and complex visual information.

The snap-judgement model offers predictions about how individuals should process simple visual information such as colors. Colors are first perceived as

a particular set of wavelengths which trigger particular sensory receptors in the back of one's eye. This is converted into an electrochemical message that goes to the thalamus and into the primary visual cortex in the back of the brain. To make sense of this information, our brain accesses memories containing similar information which are affectively encoded (Cimbalo, Beck and Sendziak 1978). Beyond the connection between particular colors and affect, the use of colors to distinguish political parties are so common-place that individuals likely access affectively encoded referential memories as well.

In non-political settings, we may unconsciously associate colors, (see Mehta and Zhu 2009), such as blue with "happy" and pleasure and red as "sad" (D'Andrade and Egan 1974), arousing (Valdez and Mehrabian 1994; Mehta and Zhu 2009; Elliot and Maier 2012), and angry (Epps and Kaya 2004; Elliot and Maier 2012). Indeed, in a political context, such visual information activates pre-conscious processes that may diverge from that. These colors hold important meaning beyond the raw affect they engender. Republicans report that they prefer the "Republican red" more than they do the "Democrat blue" (Schloss and Palmer 2014). That is, the colors red and blue in a political context are likely to make the neural pathways related to one's partisanship "hot". Some evidence suggests that there is indeed a strong link between ideology and color (Casiraghi, Curini and Csumano 2022), and that these associations are stronger in Western European countries and for parties that are relatively well-established. As simple visual information such as color is processed at remarkable speeds, it likely occurs even faster as primes of group identity speed up pre-conscious processing of information (Lodge and Taber 2013).

Once these politically-laden neurological pathways are activated, the affect

associated with these nodes along the path will be appraised by the body and will encourage a particular physiological reaction which are themselves associated with particular behavioral outcomes. Where these colors activate associations with the out-group, an individual is likely to have a physiological response encouraging the disengagement motivation. Where the color activate associations with the in-group, an individual will experience a physiological response encouraging an approach motivation.

As this is pre-conscious processing, it will put an individual in a "mental framework" or in a cognitive state that encourages biased information processing, both pre-consciously and consciously (Lodge and Taber 2013). However, this is continually updated with more information. Where new information comes in such as context, or a conversation, or just new simple visual information, the mental state that the snap-judgement put one in, will update with this information; it will either strengthen the path initiated by the snap-judgement, or it will attenuate the strength of the path. As this experience is forgotten, the effects of strengthening or attenuating the strength of the path will dissipate. If it is reinforced, then the effects will hold and may even strengthen.

In line with the snap-judgement model, some evidence suggests that the use of red and blue in political messages activate partisan biases in Spanish samples (Maestre and Medero 2022). As the colors red and blue hold important meaning in political contexts, these colors pre-consciously activate pathways that associate those colors with particular partisan or ideological groups. These associations are stronger the more established the party is (Casiraghi, Curini and Csumano 2022). That is to say that these associative networks are stronger and easier to access in pre-conscious processing.

Applying the snap-judgement model to such a case yields a handful of expectations:

H_1: Individuals associate the color red with Republicans and the color blue with Democrats.

H_2: When exposed to stimuli containing a political message and colors with political meaning, individuals will process the color before the message.

H_3: When engaging with the colors red and blue, they will have valanced reactions to such stimuli as the result of the identity-based meaning associated with the stimuli.

H_4: When a political message paired color is combined with contextual information, the color will meaningfully shape the evaluations of the stimuli.

H_5: The mediating effects of the contextual information will persist so long as the memory of the stimuli are reinforced, but will shortly dissipate without such reinforcement.

H_6: Surveys that offer a UX that offers simple contextual information about the organization conducting the survey will experience higher rates of survey non-response and insincere responses among those who hold negative a priori views of the organization.

Research Design

Before examining whether this complex process implied by the snap-judgement model occurs, it is important to first establish whether individuals associate particular colors with groups. Studies that associate color with parties are largely

focused on european samples (see Casiraghi, Curini and Csumano 2022; Maestre and Medero 2022). It is unclear, however, how engrained these associations are among Americans.

To examine H_1, I propose conducting an online survey where I ask respondents to match visual information they associate with different political groups. These visual groups include the parties: Republicans and Democrats, but also prominent groups such as the Sierra Club, the Proud Boys, anarchists. This visual information is a combination of logos such as an elephant - associated with the Republican party, a donkey - associated with the Democratic party, trees - associated with the sierra club, the rooster symbol - associated with the proud boys, the characteristic A associated with anarchists. These images will be monochrome to isolate the effects of the image. The visual information to be matched with these various groups will also be color: Red and white - associated with Republicans, Blue and white - associated with Democrats, green and white - associated with the sierra club, black and yellow - associated with the proud boys, and red and black - associated with anarchists.

To study H_3, I need to examine whether people experience affectively valanced reactions to colors in both political and apolitical settings. It is important to examine whether these responses are different depending on context as it establishes whether consuming such visual information in different contexts activate different neurological paths. To do this, I will randomly assign experimental participants into different conditions.

In the political context condition, participants will start the experiment by responding to a political attitudes questionnaire; a battery that asks them a number of questions prompting them to express their political views on policy issues. In

the apolitical conditions, participants will skip the political attitudes questionnaire and will experience the treatment.

The treatment will be a square box with the color red, blue, or grey. The treatment will ask participants to also report whether it is a positive or negative color. It will record how long it took for participants to report the valence. Like the implicit attitudes test, the goal of this is to examine quick and immediate valanced reactions to the treatment. There will be a number of burn-in rounds where participants will see other colors such as orange, grey, and yellow as a way to get a baseline - this is important given the individual-level heterogeneity in speed that may come about from unobserved factors such as the use of a laptop, monitor specifications, the use of a mouse and trackpad or arrows on the keyboard, etcetera.

After the burn-in rounds and a few rounds with the treatment, participants are asked to provide responses to about five open-ended questions asking about what they had for their most recent meal, what their last vacation was, what was the last thing they bought, what day of the week elections tend to be held on in the United States, and what was the last bit of news they had heard about American politics. The point of these questions is for detecting insincere responses. As experiments suffer mightily from attentive subjects, from those who are indeed American citizens, and from trained bots, evidence suggests that - beyond the use of attention checks, identifying duplicate IP addresses, and identifying "speeders" and "turtles" - the use of open-ended responses are an effective way at identifying subjects providing insincere data points (Kennedy et al. 2021).

To establish another critical assumption of the model is whether people do pick up on this simple visual information faster than messages, H_2. Though the

psychology literature suggests that may be the case, this is still an untested assumption in political settings. As political messages communicate identity-based information, messages may go through the pre-conscious process faster than simple visual information.

To test whether this assumption holds up, I first ask participants a series of questions in a political attitudes questionnaire. In the questionnaire, participants are asked about their partisan identification. This should prompt them to think of their in-group, what partisan group they belong to. As primes related to one's in-group yield faster responses to messages shared by the in-group, I use this information to conduct a blocked three-arm experimental design.

Participants will be randomly assigned into one of three conditions. In each of these three conditions, they will see a box with a color background and in the foreground a message to vote for either Joe Biden or Donald Trump. For those who reported that they were Republicans, they will receive a message to "Vote for Trump". If the subject self-identifies as a Democrat, they will receive a message to "Vote for Biden". The conditions vary in which color is in the background of this message. The three conditions are that the background uses either the color red, blue, or grey. Like I did in the other study, participants will be asked on the same screen to report the valence of the image and the length of time it takes for the subject to respond will be recorded. They will only do one round with the treatment to reduce introducing bias captured by participants realizing it is the same message but with a different color background. Before the treatment, they will receive the same burn-in practice to establish a baseline for the participants speed. After the treatment, participants will be prompted to respond to the same five open-ended questions as participants in the other study.

I will then perform another study to examine whether contextual information mediates the effects I expect to find in the previous studies. To examine H_4 and H_5, I propose a study that includes more complex contextual information. In the context of this study, the more complex information would be to place the treatments used to establish H_2, in a public space and in front of a house in a neighborhood. The dependent variables of interest here are not necessarily the valence it generates, but the valanced pre-conscious evaluation of the candidate owning the yard sign and the presumed owner of the home displaying the yard sign (in the neighborhood conditions only). Leveraging the conditions used to examine H_2, this not only allows for me to evaluate the mediating effect of the more complex visual information, but it also allows for me to examine the pre-conscious effects of color relative to those of the message on the yard sign.

The way that I intend to construct the visual information is by using validated images of neighborhoods and public spaces that the public view as partisan. As ? demonstrate through the use of google images, features of neighborhoods such as the prevalence of pickup trucks relative to sedans betray the partisanship of the neighborhood. By collecting images from google streetview, I can collect images of neighborhoods that break solidly Republican or Democratic. I then will validate these choices with a small sample of human coders who will guess how partisan the neighborhoods in the images are. From those neighborhoods that have the most intercoder reliability representing a widespread belief of clear partisan leanings, I will then photoshop the image of a yard sign varying the message and color treatments.

To examine the duration of these effects, some participants will be recontacted each day for two weeks. Half of the participants, randomly chosen, will be recon-

tacted once at the end of the two week period and the other half of participants will be recontacted each day. During recontact they will be asked to choose features that they remember from the initial treatment they received. As they will after the treatment, they will be asked a series of questions about the valanced reactions the subjects had toward the candidate owning the yard sign and the owner of the house displaying the yard sign. This will allow me to examine the duration of these mediating contextual effects and to examine whether this duration of the effects are dependent on frequent recall of the original stimulus.

I then will conduct a final study to examine whether the model has something to say about survey non-response and insincerity rooted in respondent partisanship. I AM NOT SURE HOW TO DO THIS EXACTLY... LIKE HOW WOULD I GET AT NON-RESPONSE WITHOUT INFORMED CONSENT?

Proof of concept: A pre-test

I conducted a pre-test in November 2019 with a sample of over 400 undergraduate students at a medium-sized University in the northwestern region of the United States. Students were recruited if they were enrolled in a political science course and were offered extra credit for their participation in the study. The study asked participants to participate in 5 survey experiments administered by those affiliated with the university's college-level unit. These other survey experiments were focused on capturing local policy issues around urban design, criminal justice, and probing participants about political participation in local and national-level elections. Participants were asked to participate in my survey experiment after one that examined their levels of political participation in local, state, and national elections.

Table 2 presents the descriptive characteristics of the sample. The sample is primarily White with over 80% self-reporting that they are White(coded as: 0 = non-White, 1 = White). The sample also skews slightly female on sex with about 60% of the sample reporting that they are female (coded as: 0 = Male, 1 = Female). The sample also, unsurprisingly, skews young with the average respondent reporting an age of about 22 years old. The average respondent also appears to be an independent but leans Republican (coded as: -3 = strong Democrat, -2 = Democrat, -1 = leans Democrat, 0 = Independent, 1 = leans Republican, 2 = Republican, 3 = strong Republican).

I randomly assign participants into three conditions. The conditions prompt subjects to "Imagine that [they] are driving along a road and see this yard sign" with the same message "Vote for Riley". The conditions vary on the color of the background for the image[1]. In the control condition, the background was white. Then I had a red yard sign and blue yard sign condition. On a separate screen participants were asked a series of questions acting as outcomes of interest.

To provide a preliminary test of H_1, I ask participants to report whether the candidate was a "Republican, Democrat, or Independent". Though it does not capture pre-conscious processes, I also wanted to capture the valence of the presumed out-or-co-partisan yard sign engenders for subjects. To do this, I ask respondents whether they would "seek out more information about the candidate", "avoid the candidate", "or vote for the candidate". Subjects could respond to one of the three questions with a "yes" or "no" response. I then combine these questions into a single measure of the subjects' valanced response directed toward the can-

[1]The images used for the treatments and the particular wording for the dependent variables are included in the Appendix

didate. Those that reported that they would vote for the candidate or seek out more information, were coded as 1. Those who reported that they would avoid the candidate were coded as -1. And those who reported some combination that represents mixed views or some degree of ambivalence were coded as 0.

I also wanted to examine whether these valenced reactions to the yard sign were also directed toward the presumed neighbor who displays the yard sign. I asked participants to respond "yes" or "no" to whether when "imagining this yard sign on a neighbor's lawn" whether the subject would want to "talk to the neighbor to seek out more information about the candidate", "tell the neighbor that you want to vote for the candidate", or to "avoid the neighbor". As I did with my outcome of valenced response directed toward the candidate, I also combined these three questions. Those who reported that they would want to avoid the neighbor were coded as a 0 and those that indicated that they would want to interact with the neighbor were coded as a 1.

I test whether participants presumed that the candidate was of a particular partisan persuasion just based on the color choice of the yard sign alone and whether this moderated by the partisanship of the participant influenced reported valenced reactions directed the owner of the sign and a neighbor displaying the sign. I create two dummy variables of the treatment the subjects recieved: whether or not they had the blue or the red yard sign treatment. The control condition is treated as the baseline condition when including both dummy variables in my model.

To examine whether subjects presumed that the fictional candidate is affiliated with a particular political party, I fit a model using a cumulative link function from the logistic distribution and specify a prior location of the R^2 - which represents the

proportion of variance the model explains for the discretized latent variable - with an average R^2 of 0.3 when the predictors are at their sample means (see Gelman, Hill and Vehtari 2021, Chapter 15). I assume this about the R^2 as I recognize that color is not going to explain all of the variation in the subjects' ability to detect partisanship, however, my theory suggests that it should have some meaningful impact. Therefore, I choose an expected value of 0.3, representing that I expect that my treatments should predict about 30% of the variation. I also assume that my errors are normally distributed with a mean of zero. The model is fitted using 6 chains and 2000 iterations. The results are presented in Table 1.

The results suggest that there is some preliminary support for my expectation that individuals associate red and blue with Republicans and Democrats. The first column of Table 1 suggests that individuals in the treatment with the Red yard sign were more likely to guess that the candidate was a Republican, despite having no information about the candidate other than their name and the color of their yard sign. Those in the blue yard sign treatment were more likely to assume that the candidate was a Democrat. The credible intervals for these estimates can be interpreted as the probability that the true estimate is contained in the interval. As neither of these overlap with zero, it is quite plausible that these estimates are not zero.

With confidence that the subjects associate the yard signs with the candidate's partisan affiliation, I turn my focus to their evaluations of the owner of the yard sign and the neighbor who display the yard sign. I make the same assumptions with the model of candidate evaluations given the treatment. As the outcome of interest is a ordinal categorical variable, I specify a cumulative link function from the logistic distribution and specify a prior location of the R^2 with an average

Table 1: The association of color with partisanship and its effects

	Party	Candidate evaluation	Neighbor evaluation
Blue treatment	−2.437	−0.020	−0.082
	[−2.928, −1.959]	[−0.524, 0.515]	[−0.180, 0.019]
Red treatment	2.634	−0.086	−0.123
	[2.106, 3.181]	[−0.613, 0.437]	[−0.222, −0.021]
Party ID		−0.183	−0.007
		[−0.360, −0.005]	[−0.041, 0.025]
Blue treatment × Party ID		−0.162	−0.013
		[−0.401, 0.078]	[−0.059, 0.036]
Red treatment × Party ID		0.637	0.037
		[0.382, 0.905]	[−0.008, 0.082]
Intercept			0.924
			[0.856, 0.993]
Thresholds			
Threshold 1	−1.230	−1.929	
	[−1.574, −0.910]	[−2.353, −1.527]	
Threshold 2	0.697	2.880	
	[0.402, 0.996]	[2.384, 3.405]	
N	520	463	267

Data source: Pre-test experiment.

95% credible intervals in brackets.

Median estimate from fitted model with 6 chains and 2000 iterations.

of 0.3 when the predictors are at their sample means. As I coded my outcome for the neighbor evaluation as binary, I specify a cumulative link function from the logistic distribution and rely on the default uniform distribution as my prior - which represents that I expect a coefficient on any real number line is equally likely as another. The results of these two models are included in the second and third columns of Table 1.

Column 2 presents results suggesting that among Republicans recieving the red treatment, they are more likely to indicate that they have a positive valence toward the candidate. We see that while Democrats recieiving the blue treatment are more likely to also report a positive valence toward the candidate, the effect is plausibly zero. This may be an artifact of asymmetric political polarization. Some scholars suggest that Republicans are much more group-oriented than Democrats (see Lupton, Smallpage and Enders 2020), these results may fit with such a narrative. Republicans are reactive to those they may presume to be a co-partisan in a way that Democrats do not appear to be as reactive in a similar magnitude.

Column 3 presents results that we might have expected. That is, Republicans recieving the red treatment were more likely to report that they would want to interact with a neighbor who are displaying the red yard sign and that Democrats would want to interact with a neighbor who are displaying the blue yard sign. Neither of these effects appear to be plausibly different than zero, however. These results could possibly be explained by characteristics of the respondent and the outcomes measured. Those who are more extraverted may be more willing to interact with a neighbor about a yard sign that they posted, which will affect whether they are willing to ask a neighbor more about the candidate or to tell the neighbor about their support for the candidate. For those who are less extroverted,

these "approach" behaviors may be unpalatable not because of the treatment. In other words, I have a confound that I did not collect data on. It also appears that there was a steep drop-off in the number of participants who responded to these questions with an N of only 267 relative to the other two models which have an N over 400.

The evidence from this pre-test is limited. The experimental design is not testing pre-conscious evaluations. The treatments are explicitly political and was conducted on a convenience sample of those enrolled in political science classes. The ability for individuals to associate partisanship with the treatments are likely overstated. The sample is also quite unrepresentative, so inference is certainly threatened. As I discussed with the third model, I also have omitted variable bias as the result of my outcome being a better measure of approach behaviors for those who are extroverted.

Though there are problems with the design here, it does serve some purpose for this prospectus. It demonstrates, that dispite its problems, that at some level, when thinking of poltics, color can betray information. It also provides a useful first test of a possible research design to examine what this particular design can and cannot tell me about my proposed mechanism.

Chapter 2

2.1 Lay out expectations

- Visual information tends to be a lot more complicated than just seeing a yard sign in isolation.
- We often can use visual information about the space we are in to help

us access memories.

  - The spaces we are in have lots of political meaning to them and this can be detected visually.

2.2 Can people pick up on the politics just by looking at a space that they are in?

2.3 What do people focus on when they see these things?

2.4 Do the things that people notice that have political meaning generate strong reactions?

2.5 Based on what they notice and what their reaction is to it, does it influence whether they become more attentive, want to retract?

2.6 If we provide information about the people that are in that space and are involved in shaping that space, can we mediate people's initial reactions? How long do those initial evaluations last? Can we reinforce it to make these mediating effects last longer?

Chapter 3

3.1 Lay out expectations

  - The model also has applicability for influencing whether someone engages in a informal political conversation, how the conversation plays out, and what the lasting impacts of the conversation is.

3.2 If we have people have conversations with those that have politically-related attire, what are people's reaction to it, if we let people do what they want,

do they engage in the conversation; what do they talk about if they do talk? If we force a conversation to happen, what do they talk about? What is their affective reaction to the prospect of having this conversation in both conditions? Do they express more polarized views afterwards?

3.3 What if we make these visual cues of what the conversation partner is wearing smaller? Do people still pick up on partisan cues like key chains or laptop stickers? What are the effects on motivation to engage in conversation, on the topic of the conversation, and the effects of the conversation afterwards? Are these effects long or short term? If we reinforce them by reminding people of this interaction, do the effects persist? Can they reduce people's valanced attitudes toward those like the person they interacted with?

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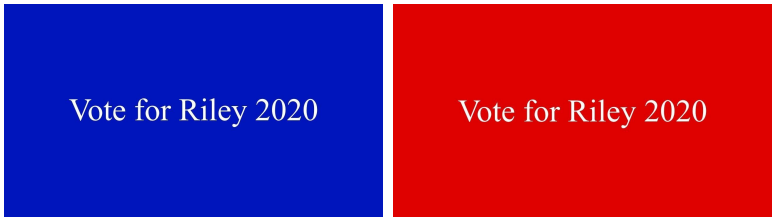
Appendix

Chapter 1

Pre-test

Figure 2: Treatments



Vote for Riley 2020

Table 2: Chapter 1 Pre-test descriptive statistics

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max
Female	3	3	0.6	0.5	0.0	1.0	1.0
White	3	3	0.8	0.4	0.0	1.0	1.0
Age	30	2	21.7	5.6	18.0	20.0	68.0
Party ID	8	15	0.1	2.2	−3.0	0.0	3.0