

*Star Wars*: Political Message Detection and Likeability

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Alex C. Bass

## **Introduction**

As the world continues to advance technologically, human entertainment shifts. Film has become a popular source of entertainment especially in the past few hundred years. In recent times, the world of film has seen great technological advances in music production and video effects making film a more realistic and engaging experience. Many years ago, thinkers questioned whether various types of entertainment were helpful to humanity; some supposing that entertainment is largely unhealthy and should be heavily censored (Plato 2013). Though Plato lived long ago, that cynicism continues today including accusations of modern films pushing political agenda (Bond 2011). These accusations require serious thought, for if these are true and the messages are persuasive, movies could strongly sway public opinion for better or for worse; much more so than perhaps the local theatre in Plato's day. If these films are effectively persuasive, they could shift the tides of not only temporary fads and styles, but also elections and governments.

In academia, many have laid groundwork in researching various media's effect on political attitudes; especially for films that have overt political messages. However, many popular films do not have clear political messages, but still might influence public opinion. Also, more work could be done in understanding what movie-goers consider political. If a viewer thinks a film is political, it could affect their willingness to accept the messages in a movie and may inhibit discussion amongst friends which also could have sway on public opinion. For these reasons, I hope to explore more about popular films that do not have a clear political message, and look at the effects on likeability if a person determines a film to be political.

Specifically, the purpose of this paper is to evaluate the truth of this statement: If a person detects a partisan political message in a film, they will have a less favorable view of that film regardless of their political beliefs.

The paper will proceed in the following fashion: a literature review will sum up existing literature concerning my question in juxtaposition with both fields of film and politics; after, necessary terms will be defined; next, a discussion of research design and methodology; then, a results section will outline findings of analysis; finally, a discussion and conclusion will deliberate limitations and future research opportunities.

## **Literature Review**

Generally, some identify two patterns of political influence that affect Americans: mass media defined as general news broadcasting and journalism, and interpersonal media defined as human interactions (Robinson 1976, 304). In this original paper, mass media was specifically described as political content that directly influenced the American masses given often through radio news and journalism. I propose another aspect of mass media that affects interpersonal communication other than what is discussed in this paper: Film. Film is media, mass produced and mass consumed, often with disguised political content or messages that is capable of strong political influence.

The box office film revenue for the world in 2019 was nearly \$43 billion which is more than any previous year (McKlintock 2020). New popular movies have the potential for commanding influence in shaping public opinion because so many people likely watch, hear, and talk about them in everyday conversation. The “visual cases” presented in a movie might provide a compelling argument to shift beliefs about attitudes, government, and specific policy issues. In

fact, this relationship has been identified in various studies (Butler et al. 1995, 16). Research shows films can change public opinion on issues for as many as 25% of viewers (Pautz 2014, 120), and that this change persists overtime unmoderated by partisanship, ideology, or political knowledge (Atkins & Castle 2013). Additionally, films have been shown to shift public opinion on political topics even shifting viewers on ideological topics (Lenart & McGraw 1989, 697). However, some still believe older voices – that movies don't change attitudes, but merely increase the salience of the film's topic (Feldman et al. 1985, 556). Interestingly, the media's influence on political opinion remains robust not only for political films, but also fictional and sci-fi ones with strong political themes (Mulligan & Habel 2012, 122; Young & Carpenter 2018, 562). There is a gap in the literature in understanding *how* films change public opinion and describing common elements in a film's persuasiveness.

One element used in this study is a film's likeability amongst the audience. There is some academic literature in film – outside of political science – relevant to the topic of this study that gives context to likeability. Various studies endeavor to derive principles in a film's likeability. Some have tried factor analysis from big data trying to narrow down categories that contribute to the likeability and success of the film (Ramash & Ghandi 2010, 35). Others explore whether having a “live audience laughter” sound effect influences the likeability of a film/show (Vraga et al. 2014, 131), and some have measured brain response during trailers to predict the same (Christoforou et al. 2017, 11). The study that comes closest to my goal of determining whether detected political messages affect likeability of the film is from a study done in 2019. This creates various regression models trying to predict box office success (similar to likeability, but also distinct). In the regression models, they measure the independent effect of genre on the success of the film, but do not include a political genre in the analysis (Shafael & Lopez-

Monroy, 2019). Because the central focus of my study is understanding the relationship between detected political messages and likeability, my study maintains originality and adds to the literature.

### **Defining Necessary Terms**

*Likeability* – This is the primary dependent variable in my study. There are two definitions of likeability that seem relevant in this context. The first is when a viewer merely is entertained by the film and enjoys watching it. Because of hopes to connect likeability to increased political persuasion of films, I propose a more apt definition: likeability is a balance between how much a respondent believes the film was ultimately successful at entertaining them personally, and the respondent's overall perceived quality of the film. A film can be likeable despite weaknesses if it ultimately succeeds at winning the favor of the viewer; however, if the film has extremely poor music scoring and scripting, the viewer will likely not take any of the messages in the film seriously. To be a truly persuasive voice, the viewer must also think highly of the quality. In this study, likeability is measured in three ways. First, the respondents were asked to rate how much they enjoyed the film on a scale of one to ten. Second, as used in many other mediums, respondents were asked if they would recommend the movie to a friend. Third, respondents were given a mark-all-that-apply question where they could select what they would likely do in the future when encountering the film. The respondent answered using this scale of actions: watch the movie for their own personal enjoyment, watch the movie with a few close friends, watch the movie in a group of friends or acquaintances, or never watch the movie again.

*Political Messaging* – This is the primary independent variable in my study. I define political messaging as a movie consumer detecting a political message in a film. This does not say anything about the intentions of the makers, but one can infer if there is a strong consensus of a specific political message among viewers, the makers likely intended it.

*Democratic Political Message* – This is the dependent variable for my second hypothesis. A respondent identifies a Democratic political message when they describe principles supporting the current Democratic platform in America. For instance, when the respondent records that the movie depicts feminist messages or messages of diversity.

*Republican Political Message* - This is the other dependent variable for my second hypothesis. A respondent identifies a Republican political message when they describe principles supporting the current Republican platform in America. For instance, when the respondent records that the movie depicts pro-military or anti-government messages.

## **Hypotheses and Theory**

While significant work has been done on determining whether movies can change opinions, not much work has been done on how opinions change because of movies. This is important information to be used in the creation of influential films and general understanding of how and why humans change their opinions – which is central to politics. All of the studies up to this point measure opinion change on a singular film by film basis. Unfortunately, one cannot extrapolate conclusions from these studies because each film is unique and may not have the same power to change opinion as another; however, if we can identify important themes in

persuasive films, we may also identify which films will be persuasive without having to do an experiment for each unique film.

Of all the types of opinion changes, the most influential is arguably when a movie can change someone's political opinions about something. This may also change how they vote and contribute to change in the distribution of power in a nation. So, in understanding how movies can change political opinions, it is vital to understand various factors that may influence a change in opinion.

Of all the factors, I propose the viewer's likeability of a given film to be one fundamental determinant of that film's persuasiveness. While no study has detailed this in depth, I would expect that people are more likely to change their opinion towards views expressed in the film if they thought the film was well-made and generally liked it. Although viewers who like the film may not always be fully persuaded, filmmakers can successfully send coy or funny political messages that viewers can still enjoy without feeling pushed. This coy or funny message – while the viewer could be decidedly against the message itself – could potentially soften the viewer to the message, thus taking a first step in persuading them. If the viewer did not like the film, they are more likely to find aspects of the film that were distasteful including perhaps that they felt political messages were sent in a poor or unprofessional way to the viewer. For films where viewers expect political messages, there does not seem to be a theoretical link between when a viewer detects a political message and whether they like the film. While viewers may expect political messages in certain films, I theorize that when viewers do not expect political messages from a film (such as an action film with a broad audiences), they are less likely to feel favorable toward the political message, and more likely to reject it. Surely there will be exceptions, but I theorize this to be a general trend.

For this reason, I am interested in a film that is not necessarily classified as political. I imagine many people do not often seek out political films on their own, and if they do, they might view only films that affirm their partisan beliefs. I am interested in understanding the many films classified as “action/adventure” or something else that may still contain subtle political messages. I do not explore whether these subtle messages persuade viewers because I am more interested if the viewers are able to recognize the political messages and how it affects their view of the film overall. The viewers political party should not matter in this relationship because the viewer will determine that if the film is bluntly and carelessly forcing political messages, it will decrease their personal view of the quality and likeability of the film.

Hypothesis 1:

*If a viewer detects a political message in a film where they may not expect it, their overall likeability of the film will decrease regardless of whether the political message they detect aligns with their party.*

If the results show what I expect (in viewers finding a film less likeable if political messages are detected), I imagine implications also extend further from likeability of the film to possibly being persuaded by the message. For, if a viewer likes the film, I argue that they are more likely to be persuaded by it though this is not my focus.

Recent surveys have shown that liberals and conservatives prefer different living circumstances which inadvertently results in liberals being grouped together in cities and conservatives being grouped together in more rural areas (“Political Polarization in the American Public”, 2019). Also, because liberals are increasingly Democratic and conservatives are increasingly Republican, this also means that preferential living is follows party lines as it does ideological lines. Naturally, it is easier to detect messages that are different and out of the



ordinary. If someone commonly hears similar messages from friends and family, when they watch a film that differs from these, even slightly, these messages are likely to be more detectable to the viewer.

Hypothesis 2:

*Republican respondents will be more likely to identify Democratic political messages, and Democrats will be more likely to identify Republican political messages.*

There is a concern that many Republicans strongly believe in feminism and many Democrats strongly believe in a large military spending yet having a small government otherwise. While it is true that these people exist, the majority of Republicans support pro-military spending and smaller government while the majority of Democrats do not (“Conflicting Partisan Priorities For U.S. Foreign Policy” 2018), and majority of Democrats support feminism (Bienart 2017) and diversity (Yglesias 2019) where Republicans position is unclear. Also, while these are not typical divisions of the parties, I still think both messages on average appeal to their said platforms more so than their counterparts.

## **Data & Methods**

To accomplish this task, a good movie must be selected. It is mostly important that the choice has been both viewed recently by participants in my study. *Star Wars: The Rise of Skywalker* is both well-known and recent as the third *Star Wars* trilogy was released only a month before the present time. Because it is well known and newly-released, many people will have seen the movie and will be able to comment on it. *Star Wars* throughout the years (and *Star Wars: The Rise of Skywalker*) arguably has political themes from both parties and has been a topic in recent politics and politics of the past (Hartung 1998, 17; Brode & Deyneka 2012; Bay 2018). The most recent film features Rey – who many may see as a strong female character –

leading the charge of feminism. Also, there was a brief scene where two females of the victorious Resistance group shared a kiss which suggests support of LGBTQ+ groups. There are also possible Republican messages showing the result of when a government (The First Order in this case) has too much power. This may suggest Republican values of smaller governments and sharing of power to entities like states in the US. Additionally, Rey may fail to deliver feminism as some may have hoped (Koushik & Reed 2018, 237). Here I have presented possible fan interpretations of the film and possible fan interpretations of political messages it contained. Whether there exists political message in the film is not as important as whether people *think* that a political message existed in the film. Also, I was worried whether watchers of *Star Wars* would identify political messages that would fall into both my groups of messages – Democratic messages and Republican messages. But, after fielding a pretest survey (which I will describe in detail later on), I found that respondents were able to identify messages that fell into both groups. So, I proceeded with *Star Wars: The Rise of Skywalker*.

Some may say that a more effective study would select more movies instead of just selecting one *Star Wars* film to better evaluate the relationship between a viewer detecting a political message in a film and their likeability of it. However, the greater the number of films selected the more distanced the researcher becomes of the political messages within the films which is important to truly understand the qualitative data. The qualitative data gathered from the respondent spelling out specific political messages of one movie opens up the mind of the respondent in a way aggregate data never could. Using one movie helps focus the study on identifying specific political themes, and which groups are most likely to identify with those themes. Subtle nuances in messages are more detectable and have more context for the researcher who studies a single film. Unfortunately, more rich data comes at a cost of lowered

external validity. Conclusions in this study cannot be extrapolated without bias, but it will provide hints at the underpinnings of why viewers like movies.

I had a concern about respondents identifying political messages, so I ran a pretest survey (n=52), and found that respondents were generally good at identifying political messages in the film. Many respondents identified similar political messages giving me the confidence to field this survey on a larger scale. I also ran this survey to see the viability of Star Wars watchers identifying political messages. Around 50% of respondents watched the film and around 50% of those who watched the film also identified a political message (see Table 7 in Appendix). There were a significant amount of messages that fit into both groups – Democratic messages and Republican messages. Given these results, I had the confidence to field my survey. I did not visualize the data of this survey because it was a Facebook convenience sample that mostly consisted of friends and acquaintances who may like Star Wars and be more politically-minded than the average U.S. respondent. But, I thought this survey would give me an idea of how people how they would respond to key survey questions and whether the film was a viable choice – which I finally concluded that it was.

I fielded a national survey of approximately 1000 respondents early March of 2020. This survey was sent out as a unique questionnaire – the only questions contained on the survey were my own. The title of my survey for others to opt-in to taking was “Media and Politics.” I requested 1000 responses from the company Prolific and they provided 1000 respondents. The sample was diverse including most demographic groups in the U.S (see Table 6 in appendix). In this survey, in addition to gathering demographic information, I asked the respondent a series of questions including: Have you seen *Star Wars: The Rise of Skywalker*? Did you detect any political messages from the film? If so, record them below. For the latter question, was an open-

ended response box where the respondent could record their feelings about political messages. They were encouraged to explicitly state any political message they recognized in the film regardless of how vague or blatant. A coder went through the open-ended response section and funneled messages into categories of “Democratic message,” “Republican message,” or “unclear.” This information paired with demographic information will be used to evaluate the second hypothesis.

In this study, likeability is measured in three ways. First, the respondents were asked to rate how much they enjoyed the film on a scale of one to ten. Second, as used in many other mediums, respondents were asked if they would recommend the movie to a friend. Third, respondents were given a mark-all-that-apply question where they could select what they would likely do in the future when encountering the film. The respondent answered using this scale of actions: watch the movie for their own personal enjoyment, watch the movie with a few close friends, watch the movie in a group of friends or acquaintances, and never watch the movie again. The second and third measurement of likeability function as checks in determining the true likeability of the movie. In order to measure my definition of likeability successfully, I will create an index from 1-10 using the respondents score of enjoyment and quality of the film. I will use this as my primary measure because it will be better at detecting subtle differences in likeability while also accounting for the viewer’s perception of the film’s quality.

The second measure of likeability is quite straight forward and intuitive. It functions as an ultimate pass/fail test. The respondent either indicates that he or she would recommend the movie to a friend (and therefore shows liking toward the movie), or that he or she would not recommend that movie to a friend (and shows a dislike towards it).

Perhaps the most unreliable measure is the third one which ranks certain events supposedly indicating level of likeability of the movie. The logic behind this measure is that someone who only mildly liked the movie may not choose to watch it on their own, but if they were with friends who wanted to watch the movie, they may give in to the collective preference. However, if they strongly disliked the movie, they may refuse even in a group of friends. There are two response options in the scale with friends. This is because the person theoretically would be more open with close friends and more likely to share their full opinion of the movie whereas if they were in a group of friends and acquaintances, they might only share their strongest opinions with the group. That is, they would only tell the group of friends and acquaintances they disliked the movie if they felt strongly about it. This measure will have error as some people are more open and apt to share personal opinions with strangers more readily which will affect the measure, but I suspect that, regardless, it will still capture a general shape/trend of the likeability of the respondent. And that together, the three measures will be successful in measuring likeability.

I also measured the viewer's perception of the quality of the film in order to create an index with the first measure of likeability. Because of limited resources, I was not able to include additional questions measuring the viewer's perception of the quality of the film like I was able to for likeability. However, I trust the respondent's general intuition that if they thought the film was high quality, they would on average rate the film in the 7-10 range on the 1-10 scale. If they thought that the quality of the movie was average, they would rate it from 4-6 range, and if they thought the quality of the movie was poor they would rate it from 1-3 range. In the questionnaire, I was careful to be very specific in defining quality giving examples of scripting, scoring, visual aesthetics, and other cinematographic elements of the film to eliminate any possible confusion.

Also, in the question, I told the respondent that one represents low quality and 10 represents high quality just to be clear. With these measures, I trust the respondent in understanding the quality question conceptually and answering with accuracy.

After receiving valuable feedback from my peers, I realized that many people may have been primed in the news to look for political messages. For this reason, I decided to put a question asking whether respondents had read, heard, or came to the knowledge of any political topics before watching the film. With this question, I should have a rough control of those who may have been primed. I have hope because I watched *Star Wars: the Rise of Skywalker*, and prior to watching it, I did not know of any political messages even though I consider myself frequent news-consumer.

As far as analysis goes, regression is the most appropriate statistical technique in this case because there is no random assignment or experiment in the research design. In order to control for omitted variable bias, a regression with control variables will help solve this problem. Using robust standard errors will provide conservative estimates and correct for possible heteroscedasticity. Multiple regression is considered the Best Linear Unbiased Estimator (BLUE) when the assumption are met – like in this case. Further detail about regression analysis will be provided in the next section.

## Results

### *General Information*

Initially, it was important to determine if those who watched *Star Wars* were fundamentally different than those who did not. If these two groups were the same, extrapolation of inferences is more reasonable from those who watched *Star Wars* to the general population. For this check, I ran a series of t-tests below comparing various demographic variables between those who watched and did not watch *Star Wars*.

Table 1

<b>NAME OF VARIABLE</b>	<b>MEAN OF UNWATCHED N=643</b>	<b>MEAN OF WATCHED N=361</b>	<b>DIFFERENCE IN MEANS</b>	<b>P-VALUE FOR T-TEST</b>
MALE	0.39	0.57	0.18	0.0001*
EDUCATION	3.26	3.11	0.15	0.102
INCOME	6.74	7.25	0.52	0.02*
PARTY	1.629	1.652	0.023	0.623
AGE	37	42	5	0.0001*
VOTED LAST ELECTION	0.693	0.689	0.003	0.911

\*indicates significance at the 95% or 90% level

From this table, three demographic characteristics differ between those who watched and did not watch *Star Wars*. Males are more likely to have watched the movie. For, 57% of those who watched the movie were male compared with only 39% in those who did not watch the movie. There was no statistical difference between the education of the two groups, but those who watched the movie were more likely to be in a higher income bracket. While this difference is statistically significant, it is not substantively significant because in the survey question there were thirteen income level brackets and most brackets only differed around \$10,000. So, the

estimated difference between the two groups income levels is only about \$5,000 which does is not a substantively significance in income.

There is also an age difference between the two groups. The average age for the watched group was 42 while the average age for the unwatched group was 37. This might be the case because Star Wars is an older show and may attract originalists. Also, those with more money might not mind paying entrance fees while the younger groups might be more averse.

Interestingly, there was no difference in party identification between the two groups or in voting rate. The party-id variable is coded on a scale from 1 to 3 with both groups having means around 1.6. Democrats were coded as 1, Independents as 2, and Republicans as 3. The mean is close to the Democratic coded 1 because there were about twice as many Democrats who responded to the survey than Republicans. Both watchers and non-watchers voted at the same rate. Some may expect Star Wars fans to lean toward the Republican party, but this does not seem to be true.

Before regression analysis, it is important to better understand the group of people that detected a political message vs. those that didn't. Understanding this group gives context in evaluating both hypotheses. So, in like manner, I performed a series of t-tests evaluating the differences in both groups.



Table 2

NAME OF VARIABLE	MEAN OF NO POLITICAL MESSAGE N=283	MEAN OF POLITICAL MESSAGE N=80	DIFFERENCE IN MEANS	P-VALUE FOR T-TEST
MALE	0.59	0.51	0.07	0.23
EDUCATION	3.13	3.03	0.1	0.54
INCOME	7.2	7.4	0.2	0.57
PARTY	1.68	1.53	0.16	0.08*
AGE	37	38	1	0.91
VOTED LAST ELECTION	0.67	0.73	0.06	0.29
READ POLITICAL ARTICLE	0.34	0.58	0.24	0.001*

\*indicates significance at the 95% or 90% level

When crosscutting the data, there do not seem to be any demographic differences between those who did and did not detect a political message except for party. Also, the group who detected a political message also was more likely to have read, heard, or seen political media about Star Wars. This variable will be important to include when evaluating respondent's detecting a political message affecting likeability. It also appears that there is a significant difference at the 90% level of political party distribution. Interestingly, Democrats seemed more likely to comment than Republicans as Republicans are coded with higher numbers than Democrats.

*Evaluating Hypothesis 1*

Below is a regression table that includes each of the three measures of likeability. Each measure of likeability has two models associated with it, to better understand the trend.

Table 3

VARIABLES	(1) Likeability Index	(2) Likeability Index	(3) Recommend to Friend	(4) Recommend to Friend	(5) Ordered Response	(6) Ordered Response
Respondent Identified Political Message	-0.644** (0.261)	-0.526* (0.282)	-0.102 (0.164)	-0.019 (0.173)	-0.025 (0.150)	0.032 (0.159)
Male		-0.357* (0.207)		-0.098 (0.140)		-0.069 (0.121)
Age		0.028*** (0.010)		0.018** (0.008)		0.012** (0.005)
Education		-0.105 (0.081)		-0.041 (0.052)		-0.028 (0.046)
Vote		-0.324 (0.249)		-0.163 (0.168)		-0.123 (0.147)
Black		0.834 (0.927)		0.569 (0.540)		0.325 (0.492)
Asian		0.107 (0.859)		0.181 (0.482)		0.066 (0.478)
White		-0.067 (0.820)		0.338 (0.440)		-0.142 (0.448)
Latino		0.192 (0.901)		0.327 (0.491)		-0.050 (0.483)
Native		1.877** (0.901)				0.710 (0.440)
Income		0.017 (0.032)		0.006 (0.021)		0.011 (0.019)
Party ID		0.024 (0.164)		-0.109 (0.104)		-0.097 (0.097)
Read, Seen, or Heard Political Star Wars Content		0.128 (0.228)		-0.035 (0.152)		0.030 (0.134)
				-		
Constant	6.987*** (0.123)	-46.395** (20.675)	0.487*** (0.078)	-33.885** (14.937)	2.228*** (0.070)	-20.302* (10.749)
Observations	359	345	361	345	360	346
R-squared	0.017	0.059			0.000	0.029

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Model 1 shows a simple regression of political messaging regressed on the likeability index. This shows significant results. When a person identifies a political message in the film, the model predicts they rate the film an average  $\frac{1}{2}$  point lower on a ten-point scale. However, when controlling for other demographic variables in multiple regression (model 2), the political messaging coefficient is no longer significant at the 95% level, but remains significant at the 90% level. It seems that the effect of political message detection on likeability was overestimated creating a slight positive bias. Some the effect of political message detection in model 1 is likely attributed to age and gender displayed in the model 2 which both show statistical significance. The coefficient estimate of political message perception on likeability remains robust for both model 1 and model 2 as both estimate about a 0.5 point change. On both models for the first measure, the relationship seems robust as the coefficient remains significant after the control variables were added. This relationship is also substantively significant as a  $\frac{1}{2}$  point on a ten-point scale shows a subtle, yet meaningful, shift in attitude in the direction predicted in the hypothesis.

In evaluation of the second measure, models 3 & 4 are probit regression estimates. I used a probit model because of the nature of the dependent variable. Because the dependent variable was binary (the respondent said they would recommend the movie to a friend or not), the s-curved probit model fits the latent relationship better than the linear OLS model. Both the simple probit model (3) and multiple probit model (4), show political messaging as having a null effect on whether the respondent recommends the movie to a friend. The only variable that is a significant predictor of whether a viewer recommends *Star Wars* to a friend is age. The older a person is the more likely they are to recommend *Star Wars* to a friend.

The third measure is best described as multiple ordered response options. The respondent was asked what they would be willing to do in the future with *Star Wars: The Rise of Skywalker* and were given options ordering their interest in the film. The most interested selection was “I would choose to watch this film alone for my own personal enjoyment” while the least interested was “I will likely never choose to watch this film again.” There two options in-between these. Whether a respondent detected a political message in *Star Wars* had null effect on likeability. Again, age was the only significant variable.

The first measure of likeability seems to validate H1, but the second and third measure show null results perhaps invalidation H1. To test this further, it seems appropriate to breakdown the likeability index (first measure) into its components to see which ones are driving the change. Understanding what is causing the change will help determine how to interpret the results of first measure in context with the results of the second and third.

Table 4

VARIABLES	(7) Quality Scale	(8) Quality Scale	(9) Enjoyment Scale	(10) Enjoyment Scale
Respondent Identified Political Message	-0.682** (0.266)	-0.548* (0.285)	-0.606** (0.291)	-0.504 (0.313)
Male		-0.270 (0.213)		-0.443* (0.233)
Age		0.027** (0.011)		0.028** (0.012)
Education		-0.115 (0.083)		-0.096 (0.091)
Voted		-0.389 (0.257)		-0.259 (0.285)
Black		0.758 (0.857)		0.909 (1.105)
Asian		-0.261 (0.789)		0.475 (1.044)

White		-0.211		0.076
		(0.744)		(1.001)
Latino		0.019		0.365
		(0.830)		(1.085)
Native		2.117***		1.637
		(0.743)		(1.370)
Income		0.005		0.028
		(0.033)		(0.037)
Party ID		0.109		-0.060
		(0.164)		(0.189)
Read, Seen, or Heard Political Star Wars Content		0.199		0.056
		(0.235)		(0.256)
Constant	6.882***	-45.012**	7.093***	-47.779**
	(0.125)	(22.249)	(0.138)	(23.135)
Observations	359	345	359	345
R-squared	0.018	0.062	0.012	0.050

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

After the index is broken down into its components, it seems both are significant in simple regression showing that when viewers detect a political message, their rating of both the quality and personal enjoyment decreases by .7 on a ten-point scale for each. When control variables are added in Model 8, the coefficient decreases to .5 showing significance only at the 90% level. It seems some of the change was attributed to the respondent's age. In model 10, when the control variables are added when predicting the viewers enjoyment of the film, the relationship between detecting a political message and enjoying the film was not significant anymore. It seems this effect was drowned out because of age and gender which are both significant predictors of enjoying the film. From these models, when a respondent detects a political message, the movie viewer's perception of the quality of the film has a greater negative effect than their personal enjoyment film. Though the relationship between detecting a political message and the viewer's perception of quality is the stronger (and more significant)

relationship, this does not mean that the relationship between detecting a political message and the viewer's enjoyment are not correlated. If this were the case, the likability index in model 2 would be insignificant because it would be drowned out by the insignificant relationship of political messaging on enjoyment. In other words, because political messaging is significant in model 2, there must also be some negative correlation between viewers detecting a political message and their personal enjoyment of the film. For more info, see figures 4 and 5 in appendix.

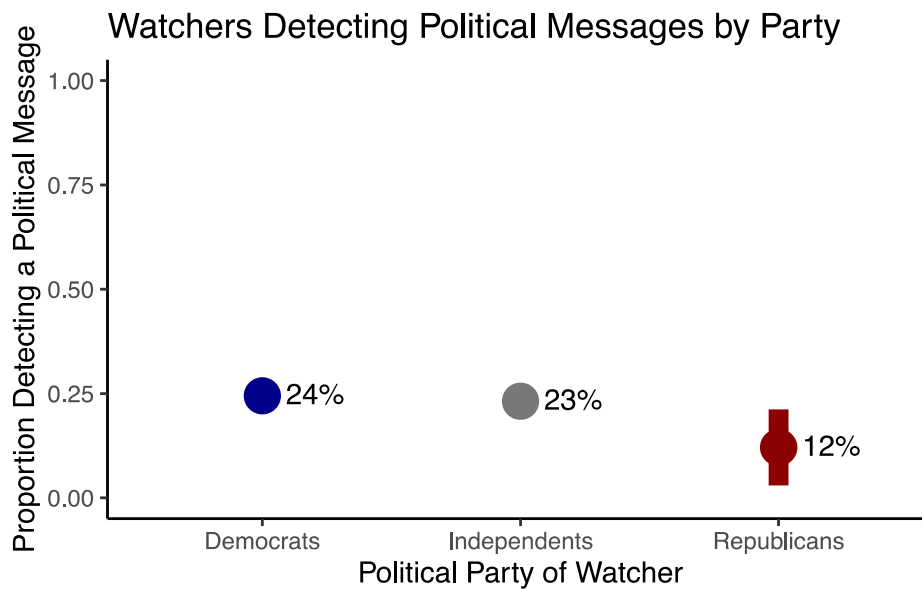
There is still a question at hand with the first hypothesis: Does the viewer's perception of a political film affect their likeability of *Star Wars*? While the second two measures did not show any significance in the relationship, the first measure may be enough to detect a subtle, but meaningful, relationship. Asking if the respondent would recommend the movie to a friend is an effective measure of overall likeability of the film, but it is an ultimatum. The film either is deemed good and is worthy to recommend to a friend, or it is deemed not good and not worthy to recommend to a friend. It is more difficult to detect subtle shifts in attitude with such a measure. And also, while the third measure of likeability had more response options than the second, it still had half as many as the first measure of 10. It is important to note that while the relationship between political message detection and likeability was insignificant the coefficient directions were almost all constant – being negative. Indicating (though not significantly) that political message detection decreased the personal likeability of the film. In the end, the two non-significant measures teach us more in combination with the first about the primary focus. While detecting a political message does not immediately push the viewer to ultimately dislike the film (as measures 2 and 3 suggest), viewers overall seem to like the film less if they detect a political message.

## Evaluating Hypothesis 2

As a reminder, Hypothesis 2 says that Republican respondents will be more likely to identify Democratic political messages, and Democrats will be more likely to identify Republican political messages. As an initial look, it is essential to understand the response rates in the data.

To help, I included this figure detailing the partisan breakdown of all those who indicated a political message.

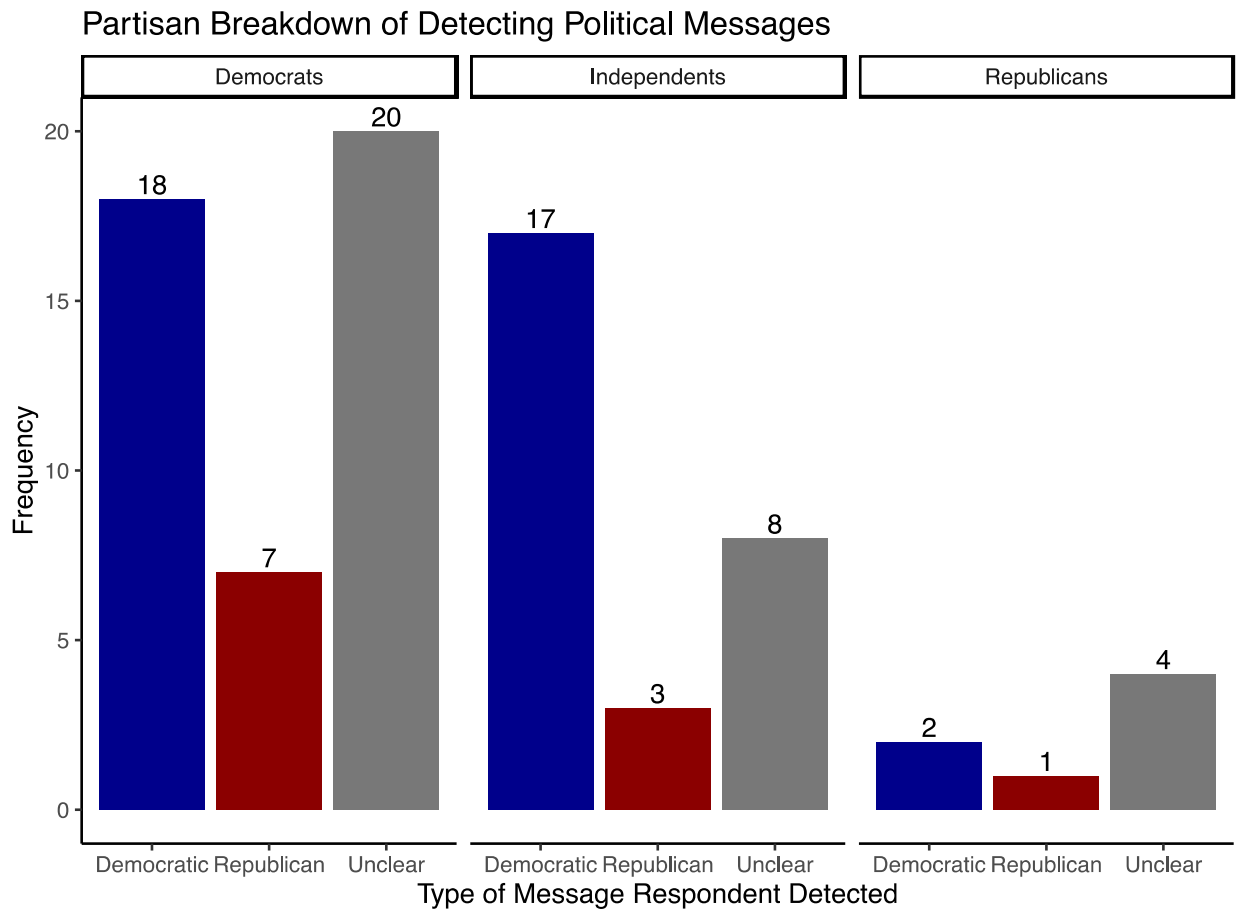
Figure 1



Interestingly, Republican respondents (12%) detected political messages at half the rate at which Democratic (24.5%) and independent (23%) respondents did. The confidence interval is larger for Republicans because there were fewer of them in the survey than the other two groups. In the next figure, the types of messages each party detected are shown. As a note, the “unclear” section was the second largest section of message types mostly made up of those (when asked what messages they detected) who said, “There was a political message of liberty and working

together.” Another significant section of the “unclear” group was respondents who mentioned the movie was “a statement against dictators and fascism.” I figured both parties were generally averse to fascism and dictators.

Figure 2



There were a few themes I will discuss of those who detected a Democratic message. The most prominent theme was that the film was supporting “diversity” or “a liberal agenda” by sneaking in the LGBTQ+ kiss near the end of the movie. Many Republicans mentioned “liberal

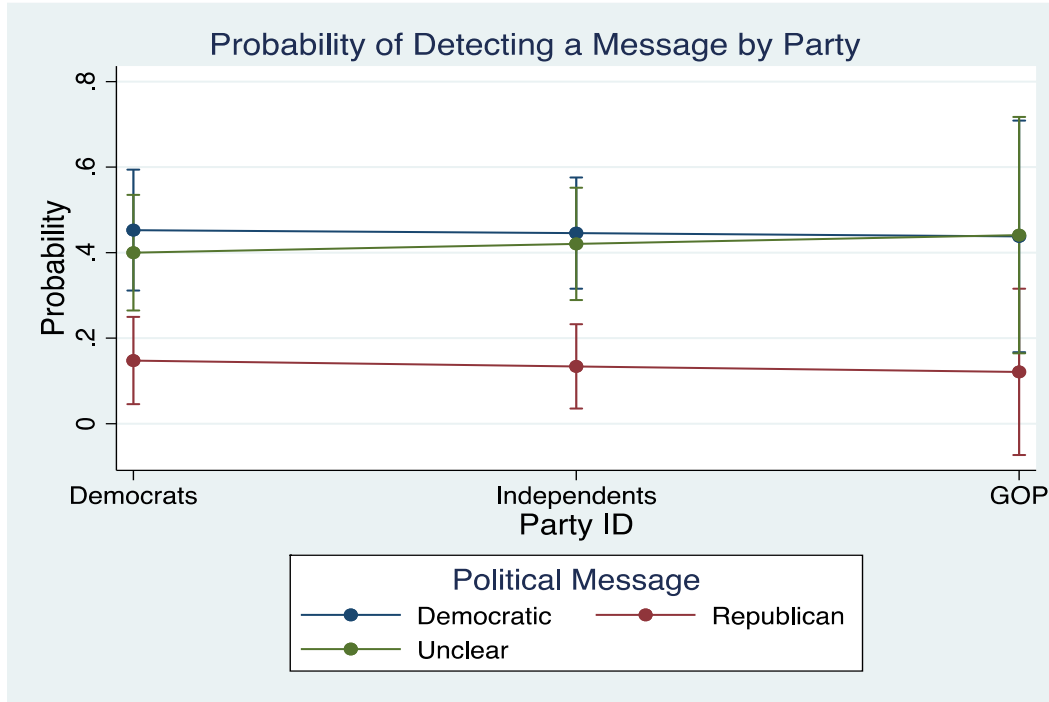


agenda” while many Democrats said this was supporting diversity (though a number of Democrats mentioned the kiss felt forced). Another group mentioned pro-feminist messages from Rey’s prominent role in the film which was mostly stemmed from Democratic respondents. Lastly, another significant group who noted that the director was portraying the evil Emperor Palpatine as “Trump” and “Democrats” as the rebels. This group also mainly consisted of Democrats.

The majority of comments of those who detected Republican messages described the film was portraying how governments are “bad when they get too big” and must be taken by force if necessary.

To test the relationship between the type of message the respondent identified and partisanship, the best choice was using a multinomial logit regression model. Because each category of political message is unique and does not neatly fit into a scale, a multinomial logit will create predictions of the probability in choosing each option. Ultimately, because the dependent variable of message type is categorical, a multinomial logit is the best fit. While Democratic and Republican messages could arguable fit into a scale if dropping the “unclear” messages, but the N is too small to run a reliable model for inference, and important data from the “unclear” section may be overlooked. The multinomial logit help us fully take the “unclear” category into account which made up more than a third of the responses. (Regression table included in the appendix – table 5)

Figure 3



Above is a figure visualizing the logit model. It shows the probability members of a given party had for detecting each type of political message. While no relationship is truly significant (see tables in appendix) because of the low N in Republican respondents, a pattern is discernable.

While the estimates of the Republicans are largely inconclusive, respondents of every party identification seem to identify fewer Republican messages than Democratic and unclear messages. This runs against my hypothesis as my model predicts that Democrats are actually more likely than Republicans to identify Democratic messages – though not significantly. As for Republican respondent predictions, there is no statistical difference in the which message is most likely to be identified; however, from the data, the best guess is that Republicans will identify Republican messages less, and Democratic messages more. This aligns with the hypothesis, but perhaps this relationship is due to a general perception that the media is more Democratic which is not a variable controlled for in this analysis.

## Discussion & Conclusion

In summary, there are a few ways in which the *Star Wars* fan is different than the average survey respondent. A *Star Wars* fan is more likely to be male and more likely to be older, however, because of the large sample size (n=1000) through regression analysis, we were able to control for these demographic variables and other factors such as whether they read political content prior to watching the film that might have persuaded the reader to believe the content was more political. There was a significant relationship between a respondent detecting a political message in the film and having a more negative view of the film. I originally theorized that this negative view would come from a detection of a political message that is disagreeable to the viewer making the viewer feel like they are being manipulated to feel a certain way. This manipulation would contribute to the dislike of the action/adventure film. After analysis, there was a modest, yet significant, movement toward dislike when a political message was identified, but it was by no means a definitive condition. The second hypothesis was invalidated by the data as Democrats were predicted to identify more Democratic political messages in *Star Wars* than Republicans. There seemed to be a general trend in which many respondents thought the political messages in *Star Wars* were more Democratic in nature which may suggest a bias that many have in considering the media to be primarily Democratically biased. Democrats and Independents were twice as responsive as Republicans were which suggests that they were more sensitive to Democratic messages which also goes against the second hypothesis.

There are a few limitations I will discuss. Firstly, there is some inherent selection bias in the data. Generally, people will only go see a movie in theatres if they think that they will enjoy it. This bias explains the left skew in figures 4 and 5. But, when measuring many aspects of

movies, there will always be selection bias because everyone only watches what they think they will like, and some people don't even watch movies.

One other limitation is only looking at one film in the research design. This means that I can only make inferences on people who watched the latest *Star Wars* movie in theatres.

Initially, this seems like a narrow scope. But consider, this doesn't change the fact that more than 1/3 of the respondents who took the survey watched *Star Wars* in theatres. When considering the American population in its entirety, 1/3 of America is a large subset to learn about and from which to make inferences! And likely, many of these people will also watch other action and adventure movies, so the data may give us hints to understanding them.

This study could benefit from repetition on a larger scope. Does this relationship hold for all films? I imagine films that are meant to be political will not receive harsh backlash simply because they contain political messages. A political message in such message would be assumed and expected by the viewer. It would be informative to explore acceptance of different types of political messaging. In this study, viewers largely disliked the political messages even though many of those who showed distaste were those in the same party as the type of message they identified. What truly determines when a party is accepting of a political message?

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## Appendix

Figure 4

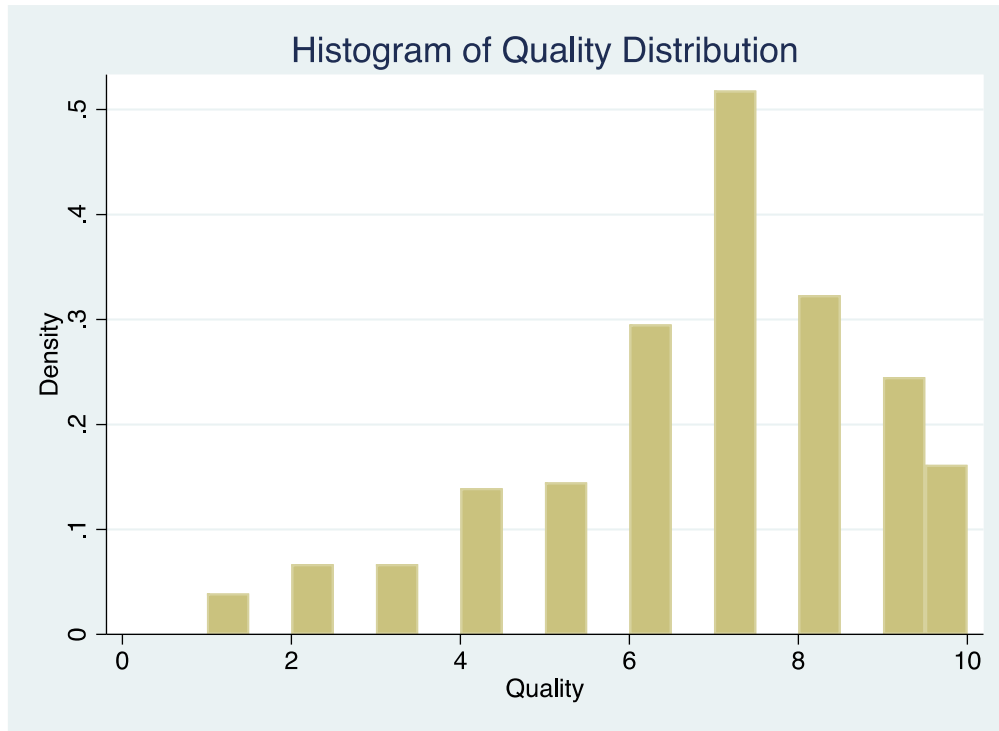


Figure 5

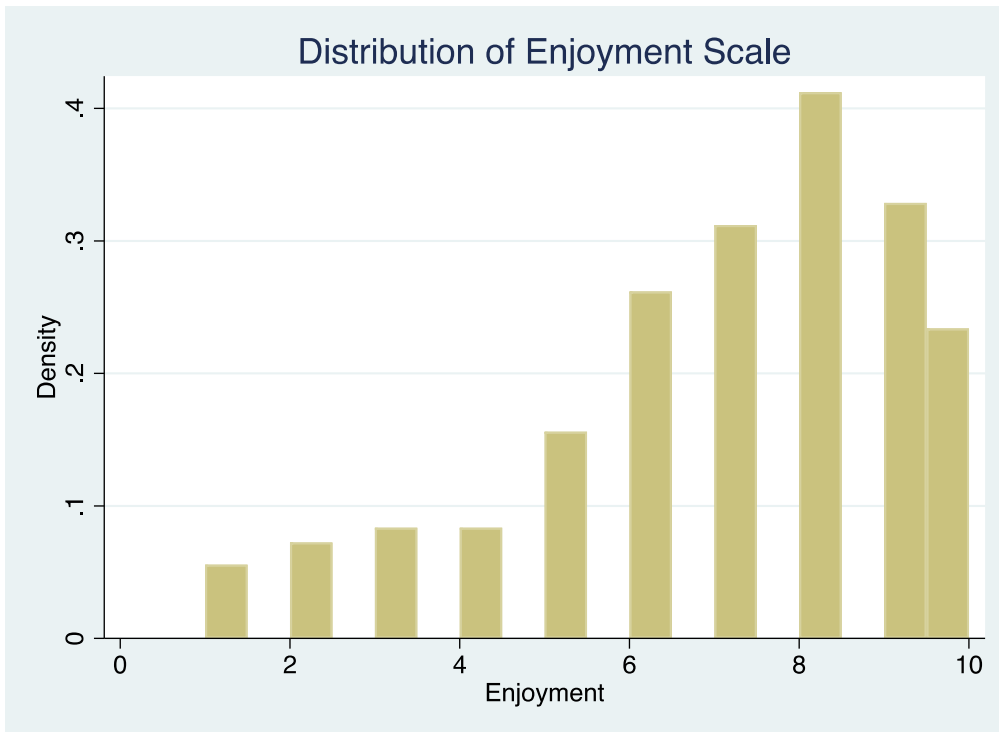




Figure 6  
Like figure 2 but with Independents collapsed.

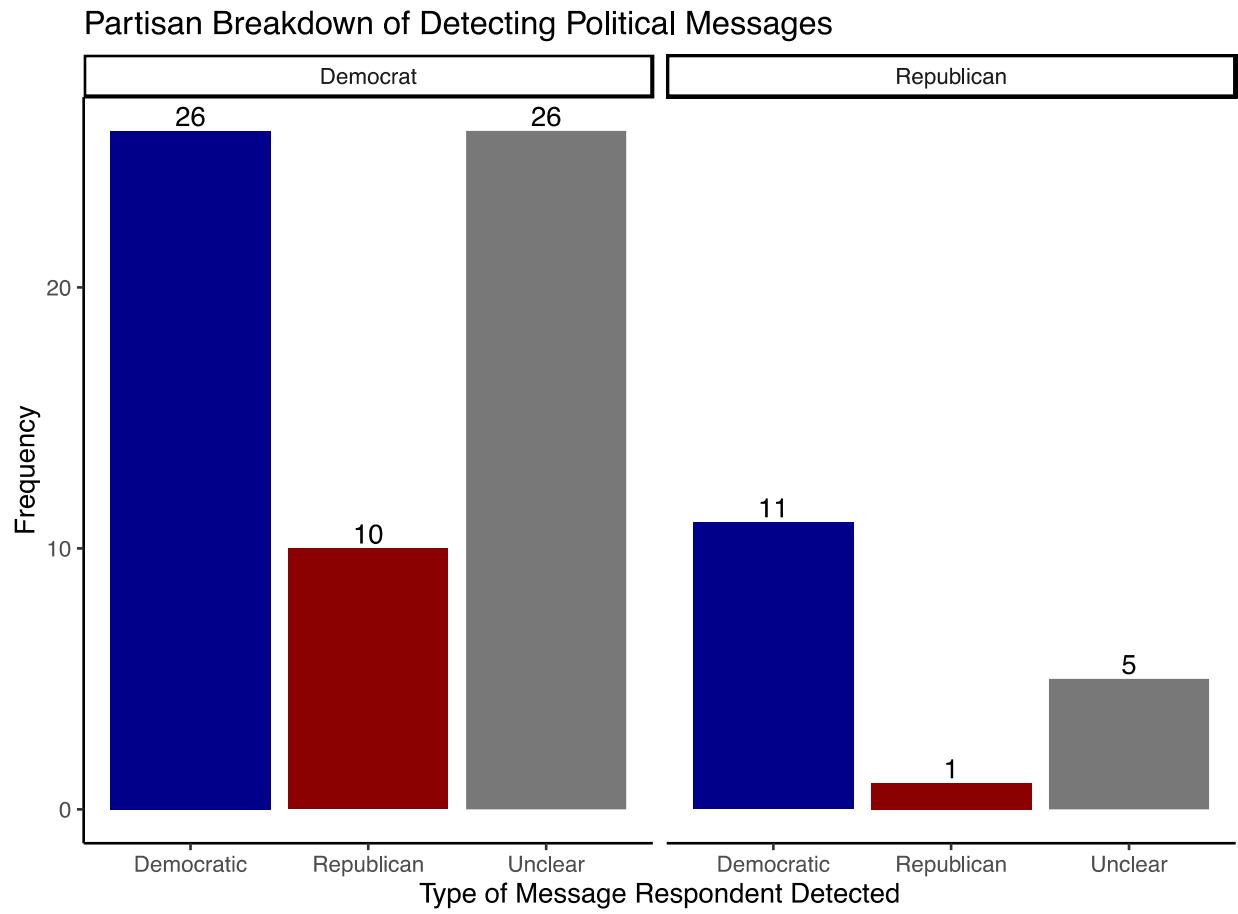


Table 5  
 Logit model evaluation second hypothesis.

VARIABLES	(11) Democratic Messages	(12) Republican Messages	(13) unclear
Party ID	-0.076 (0.434)	-0.164 (0.662)	
Male	-0.112 (0.516)	-0.258 (0.695)	
Age	-0.028 (0.031)	-0.028 (0.046)	
Education	0.235 (0.241)	0.550 (0.341)	
Vote	-0.565 (0.650)	0.052 (0.980)	
Asian	0.979 (1.604)	18.250 (4,298.703)	
White	1.332 (1.468)	17.719 (4,298.703)	
Latino	0.347 (1.686)	16.948 (4,298.703)	
Other	18.368 (4,196.781)	18.880 (9,200.758)	
Income	-0.009 (0.080)	-0.168 (0.130)	
Read, Seen, and Heard	0.890 (0.597)	-0.270 (0.864)	
Constant	52.565 (61.645)	37.121 (4,299.666)	
Observations	78	78	78

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6 – Summary Statistics of Survey

<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
MALE	448	53.07
FEMALE	528	3.11
OTHER - SEX	19	1.91
DEMOCRAT	518	51.54
INDEPENDENT	333	33.13
REPUBLICAN	154	15.32
BLACK	67	6.71
ASIAN	76	7.61
WHITE	747	74.77
LATINO	65	6.51
OTHER - RACE	44	4.40

Table 7 – Summary Statistics of Pretest Survey

<b>VARIABLE</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
WATCHED	25	48.08
NOT WATCH	27	51.92
DETECTED PM	11	55.00
NOT DETECTED	9	45.00