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# EFFECTS OF WITNESSING TERRORIST ATTACKS ON PERCEIVED CAUSES OF TERRORISM AND SUPPORT FOR SECURITY MEASURES

# AUSTIN SULLIVAN

Master's Program in Intelligence and National Security Studies

	APPROVED:	
	Misty Duke, Ph.D., Chair	
	Diana Bolsinger, Ph.D.	
	Rebecca Reid, Ph.D.	
Stephen L. Crites, Jr., Ph.D.		
Dean of the Graduate School		

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Austin Trevor Sullivan

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# EFFECTS OF WITNESSING TERRORIST ATTACKS ON PERCEIVED CAUSES OF TERRORISM AND SUPPORT FOR SECURITY MEASURES

by

## AUSTIN SULLIVAN, B.A.

## **THESIS**

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#### **ABSTRACT**

The following research aims to understand how individuals who were aware of, and affected by, terrorist attacks at the time they took place perceive the causes of terrorism and support security measures. It is hypothesized that the extent to which one "witnessed" attacks characterized by more traditional forms of terrorism, such as bombings and religiously motivated and affiliated perpetrators (Wave four), versus new forms of terrorism, such as shootings and lone wolves (Wave five), would be affected by the age of the witness. This research proposes an indirect pathway from age to "witnessing" terrorist attacks to attributions for the attacks to support for security measures that is moderated by political conservativism. An online survey was completed by 300 respondents of ages eighteen and over in the United Sates.

Using the responses from the survey, two path models were tested, one regarding witnessing Wave four attacks and one regarding witnessing Wave five attacks. The proposed moderated mediation was not found. Additionally, there was no indirect effect of age on support for security measures. However, in the Wave five model, there was an indirect effect of witnessing a terrorist attack on support for security measures, through one's belief that a cause of fifth-wave terrorism is disagreement with U.S. policy. Additionally, the more a participant believed that one's background and upbringing, disagreement with U.S. Policy, and internet radicalization caused terrorist attacks, the more likely they were to support security measures for both Wave four and Wave five.

The findings of the study could be significant to future policymaking from the potential implications of people who are likely to believe that factors such as life experiences, US policy, and internet radicalization are responsible for causing terrorist attacks. Policymakers can use this data to create appropriate legislature that creates security measures that addresses the concerns of

those who believe factors such as life experiences, US policy, and internet radicalization cause terrorist attacks to occur.

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### INTRODUCTION

Over the past decades, people all over the world have become very well acquainted with the word "terrorism." At its core, a terrorist is somebody who seeks to inspire fear in others, in this case the general population. Many individuals and groups over the years have made the rounds in news headlines as taking part in terroristic attacks. The reasons for these attacks and even their methods have changed over the years with no end in sight. Terrorism has always been like that, and as methods change, so does perception.

Like the ever-changing world around us, concepts of terrorism have significantly changed in the 21<sup>st</sup> century. For example, in the late 20<sup>th</sup> century, terrorist attacks were likely to be perpetrated by foreign actors, whereas, in the 21<sup>st</sup> century, more attacks have been conducted by American citizens. Changes in the characteristics of these attacks over time may have resulted in differences in perspectives on terrorism, which can manifest in differing levels of support for the implementation and enforcement of counterterrorism policies and security measures.

Due to the changing nature of terrorism over the past twenty years, there is an ongoing debate in academic circles over the definition of terrorism (Kurtulus, 2011; Ramsay, 2015; Spencer, 2011). For example, does an attack have to be ideologically motivated, or can there be exceptions? Is lone wolf terrorism as problematic as group-sponsored terrorism? Can the type of weapon used in an attack affect whether the event is properly classified as a true terrorist attack or not?

This leads to the following question, do witnesses to terrorist attacks view terrorism and government counterterrorism and security policies differently because the nature of terrorist attacks has changed over time? Witnesses in this study are those who witnessed the attacks from

watching news reports, or discussing with others, have distinct memories of terrorist attacks immediately after they occurred, and experienced emotions regarding those attacks. This proposal hypothesizes about one pathway through which people develop attitudes about security measures. First, because people have "witnessed" different terrorist attacks as they have aged, the extent of what they witness affects attributions formed from the attacks. This will result in the witnesses' support for security measures being affected based upon their attributions. This is an indirect relationship, and the strength of it depends upon the witnesses' political conservativism.

#### LITERATURE REVIEW

This literature review will discuss research pertaining to this theoretical pathway. The review will cover the changing nature of terrorism. Examples include the attributions people make about the causes of terrorist attacks, how terrorist threats affect political conservativism, how political conservativism can affect attributions and support for security measures, and how the indirect relationship of witnessing a terrorist attack affects attributions for the attack, and the support for security measures to combat these attacks.

#### What is Terrorism?

"Terrorism is a strategy or a tactic that employs violence or force in order to reach political objectives" (Schwenkenbecher, 2012). Terrorism in the United States has evolved over time. Rapoport (2022) has conceptualized this evolution in terms of "waves" of terrorism, which refers to terrorism in its global form, as more localized terroristic acts are found throughout human history. There are four waves of global terrorism, with an ongoing debate over whether a fifth wave is developing. It is important to note that these waves all overlap, that is that the start of a wave does not indicate the end of attacks of another wave and vice versa. For example, the attacks and groups during the first wave share similarities with attacks and groups a century later during the fifth wave. The first wave of terrorism started in the late 1800s and lasted through the end of World War I and is called the anarchist wave. The first wave was rife with frequent assassinations of important political targets. One such target was William McKinley, 25th President of the United States of America, who was assassinated by a first wave terrorist in 1901. The second wave of terrorism was known as the anticolonialism wave and lasted from the 1920s to the 1960s. Terrorist attacks were common during this time in which colonial powers had not relinquished control or allowed locals the right to self-determination. Groups such as the Irish Republican Army (IRA)

began as second-wave groups. The third wave of global terrorism is called the "New Left" and lasted from the 1960s to around the 1990s. Many third-wave groups, appropriately, were left wing groups. In the United States, these included The Weathermen, who claimed responsibility for multiple bombings, including at the Pentagon, and the US Capitol Building. This was the era of insurgencies, and depending on who was asked, groups in the third wave would be called "terrorists" by some, and "freedom fighters" by others.

Starting in 1979 and continuing to the present, terrorist attacks consistent with the "fourth wave" have been perpetrated. Many people currently alive in the United States have experienced or heard about an attack consistent with the fourth wave at some point in their lives. Fourth wave attacks differ from other waves in several ways. First, groups commonly use religion to justify them, leading the fourth wave to be also known as the religious wave or, more specifically, the Islamic extremist wave. Second, explosives are often used in attacks. The use of explosives was common enough to scare western governments, such as the United States, into believing that some fourth wave groups could acquire Weapons of Mass Destruction (WMD's) which was the basis for the United States invasion of Iraq post 9/11 (Rapoport, 2022).

Rapoport noted that a significant change in terrorism occurred in the United States starting around 2010. Attacks from Islamic extremist groups decreased as a new type of extremist was increasingly seen in the news: far-right extremist groups, such as the Proud Boys and QAnon. Rapport argues that we may currently be in the "fifth wave" of terrorism because these far-right groups appear distinct from fourth-wave terrorist groups. First, they are not affiliated with overseas terrorist groups or only have indirect ties to them. Second, these fifth-wave terrorists are typically citizens of the country in which they conduct their attacks, whereas terrorists from previous waves conducted attacks across international boundaries. This fifth wave has also occurred in Europe,

characterized by attacks such as that conducted in 2011 in Norway by Anders Breivik, in which 77 people were killed. Breivik had written a manifesto prior to the attack that included racist views, especially against Muslims. Rapoport considered Patrick Crusius' 2019 mass shooting at a Walmart in El Paso, Texas, which killed 23 people to also be associated with the fifth wave. Like Breivik, Crusius also wrote a manifesto that had shared extremely racist views, saying that there was a "Hispanic invasion of Texas" (Rapoport, 2022). Along with these racist motivations held by the perpetrators, a defining characteristic of the fifth wave is the replacement of the bomb with firearms as the primary weapon of attack.

To better understand the changing nature of terrorism, it is important to understand how terrorism may be defined. One definition is provided by the University of Maryland's Global Terrorism Database, which provides a compendium of terrorist attacks, classified according to various characteristics. To be included in the database, an attack must meet specific criteria, both mandatory and secondary. The following are the mandatory inclusion criteria: (a) the incident must be intentional – the result of a conscious calculation on the part of a perpetrator, (b) the incident must entail some level of violence (including property violence) or the threat of violence, and (c) there must be sub-national perpetrators, meaning that there are no instances of state-sponsored terrorism on the GTD (START, 2022). Additionally, at least two of the following secondary inclusion criteria must also be met: (a) the act must be aimed at attaining a political, economic, religious, or social goal, but not the exclusive pursuit of profit; (b) there must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) than the immediate victims, and (c) the action must be outside the context of legitimate warfare activities, i.e., outside the parameters permitted by international humanitarian

law, particularly the admonition against deliberately targeting civilians or non-combatants (START, 2022).

Terrorist attacks that meet these criteria may vary according to the context in which they happened, and the motives of the perpetrator. For example, during the time during which fourthwave attacks were common (the late 1990's through the 2010's), ideological motivations for the attacks were primarily Islamic- and jihadist-related. In fact, publications in academic articles and journals covering Islamic extremist groups rose over fifty percent from 1990-1994 to 1995-1999 (Silke, 2003). Therefore, those who were adolescents or adults during these time periods would have been likely to hear about and remember such attacks as the one that occurred on September 11th, 2001, and the 2013 Boston Marathon Bombing. The number of those who would have read about these attacks in print media would be higher than those who would have read about fifth wave attacks in the following years, as digital media has been consistently been rising among use of adolescents and young adults, while print media has been in decline as the years have gone by (Twenge, Martin & Spitzberg, 2019).

Fourth wave attacks were typically associated with religion, especially Islamic extremism. Witnesses to fourth wave attacks are likely to associate terrorist attacks with the use of explosives instead of other weapons, such as firearms and vehicles. Using GTD data from 1970-1997, LaFree and Dugan (2007) found that terrorist attacks conducted in North America were more likely (70%) than those conducted on other continents to have employed the use of bombings.

Powell (2011) found that, prior to suspects being named in terrorist attacks, the media often suggested links to typical fourth-wave terrorist cells or groups. This suggests a broader association among American society between terrorist attacks and foreign nationals, rather than American citizens. In summary, those who witnessed fourth wave attacks, either in person or through the

media will likely remember events such as the September 11<sup>th</sup>, 2001 World Trade Center bombing and the 2013 Boston Marathon Bombing, which had several similar characteristics: (a) they were primarily carried out by foreign nationals, (b) they were typically motivated by Islamist extremism, (c) they were often perpetrated using explosives, and (d) they were most likely to be carried out by individuals affiliated with terrorist groups.

During the 2010s, the nature of terrorist attacks begins to shift, particularly regarding how they are conducted and by whom. According to Blair and Schwieit (2014), mass shootings increased from an average of 6.4 incidents per year from 2000-2006 to an average of 16.4 incidents per year from 2007-2013. In addition to the transition from explosives to firearms, another change in terrorist attacks relates to the affiliation of the perpetrator. There has been a decrease in attacks committed by groups of terrorists such as Al-Qaeda. Mass shootings perpetrated by lone wolves, however, have been on the rise (Silva & Capellan, 2019). Additionally, ideological motivation has changed. Islamic-based terrorism has decreased in the United States, while domestic terrorism, committed by either lone wolves or those belonging to far-right terror groups, has increased (Becker, 2014; Silva, Duran, Freilich, & Chermak, 2020; Taylor, 2019). The changing nature of attacks suggests that we may be experiencing the beginning of a "fifth wave" of terrorism (Rapoport, 2022).

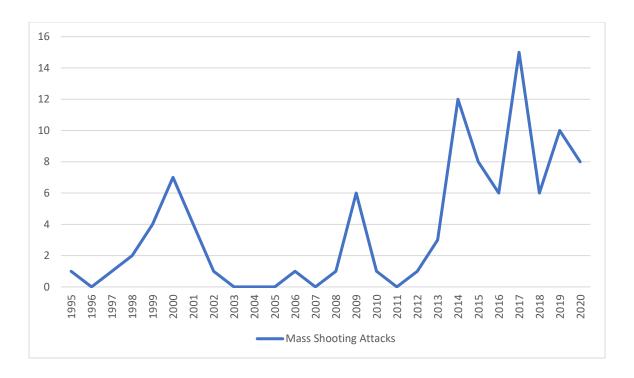


Figure 1: GTD Mass Shootings in the United States from 1995-2020 with at least one fatality

Figure 1 illustrates how an increase in mass shooting events began around the year 2013, which coincided with the period in which there was a decrease in fourth wave terrorist attacks. Mass shootings, many of which fit the criteria of fifth wave terrorism, continue to occur often.

In summary, the nature of terrorist attacks has changed over time. Those who witnessed fourth wave attacks saw attacks conducted by foreign nationals, particularly those inspired by Islamic extremism and affiliated with terrorist groups. Younger individuals may have only witnessed fifth wave attacks. Witnesses of fifth wave terrorism saw attacks conducted by American citizens, many of whom were lone wolves motivated by far-right extremism. Additionally, while witnesses to fourth wave terrorism saw attacks perpetrated by explosives, witnesses to fifth wave terrorism have seen many more mass shootings.

## Perceived Causes of Terrorism and Attitudes Towards Security Responses

The characteristics of the terrorist attacks that people witnessed may have influenced their attributions about the causes of the attacks. Those who witnessed more "fourth wave" attacks may primarily attribute religious causes to the older forms of terrorism they witnessed. Thus, Americans who have witnessed attacks perpetrated by fourth wave Islamist extremism may blame Islam for those attacks. In fact, many who witnessed more "fourth wave" attacks avoid classifying an attack as terrorism if it were not committed by an Islamist extremist, such as in the case of Stephen Paddock's 2017 mass shooting at a music festival in Las Vegas, (Dolliver & Kearns, 2022).

Interestingly fourth wave witnesses do not cite societal or systematic causes, such as religion or lax security, for fifth wave terrorism, such as mass shootings, but those who witnessed fifth wave attacks do. They tend to identify gun regulations, security issues in public institutions and schools, and societal issues, such as parenting, as potential causes of mass shootings, whereas fourth wave witnesses identify interpersonal or intrapersonal issues, such as bullying and mental health (Graham, Jonson, & Lee, 2022). Witnesses to fifth wave terrorism are also much more likely to support gun control movements, such as the Youth-Led Movement for Gun Violence Prevention, and to view them as successful (Haenschen & Tedesco, 2020).

Because younger people tend to see mass shootings as the result of systemic causes, they may also seek systemic solutions, such as gun regulation. A survey of high school sophomores, juniors, and seniors conducted in the United States to gauge their attitudes about topics related to gun control and mass shootings found that 85% of respondents agreed that there should be stricter background checks for guns (Wu, 2018). About three-quarters of the surveyed students (74%) agreed that schools with professionally trained and armed staff would be safer. Additionally, about 60% of respondents agreed that schools should have metal detectors for safety purposes and that

there should be a ban on all assault-style weapons. Young people may also support other security measures designed to address fifth wave attacks.

On the other hand, older people may be more supportive of security measures, such as enhanced interrogation techniques and increased surveillance, for fourth wave terrorism. Gross, Brewer, and Aday (2009) found that, following September 11<sup>th</sup>, 2001, confidence levels in the government were extremely high, but began to erode to pre-crisis levels over time. Pro-government sentiment is prominent in the media following a massive crisis and people who are afraid are much more likely to initially support government policy on counterterrorism (Sinclair & Antonious, 2012) and policymakers can take advantage of this temporary confidence to pass new legislation including counterterrorist measures, which is initially supported by the populace, but the support degrades over time.

Additionally, witnesses to fourth wave terrorism are generally more supportive than witnesses of fifth wave terrorism are of federal counterterrorism policies (Liu, Mumpower, Portney, & Vaedlitz, 2019); they agree with increases in spending on these programs and back policymakers who support these measures. Fourth wave witnesses are more supportive of increasing airport security, issuing national ID cards, and allowing police searches of suspected individuals (Joslyn & Haider-Markel, 2007). Both their age, as well as the extent to which they experienced these attacks all play into the witness scale for wave four. Although these studies support the idea that those who primarily witnessed fourth wave terrorist attacks may be more supportive of counterterrorism and security measures than those who primarily witnessed fifth wave terrorist attacks, they were done prior to the developments contributing to the fifth wave. Because different kinds of terrorism may have resulted in differing attributions, there may be different attitudes about government responses to fourth, versus fifth, waves of terrorism.

Specifically, whereas some may be more supportive of security measures to address the fourth wave of terrorism, such as increased surveillance and enhanced interrogation, others may be more supportive of security measures to address the fifth wave of terrorism, such as gun regulations.

#### **Political Preferences**

So far, a pathway to explain differences in attitudes towards counterterrorism measures has been discussed. Differences in what kinds of terrorism were witnessed due to age can lead to witnesses attributing different causes to the attacks, which can result in differing levels of support for new security measures, depending upon the type of terrorism the measure is intended to address. Along this pathway, the strength of the relationship between attributions to terrorist attacks and the resulting support for security measures may be affected by one's level of political conservativism.

Since many of the witnesses to fifth wave terrorism will be younger people new to politics, their views may be different from those who remember older fourth wave events. This younger generation has, so far, been very liberal leaning. For example, they voted overwhelmingly for President Biden in the 2020 Presidential Elections and to a greater extent than Millennials (Center for Information & Research on Civic Learning and Engagement, 2020). In the 2022 United States Midterm Elections, voters aged 18-29 voted more in favor of Democrat candidates than Republican candidates. Voters aged 18-29 in 2022 voted more in favor of Democrat candidates than 18–29-year-olds voted in 2020 (Frey, 2022). Democrats are much more likely trust the federal government than Republicans (Hitlin & Shutava, 2022, p.5). If witnesses to fifth wave attacks fall into these younger categories, then their support of the current administration may indicate a willingness to support security measures that this administration adopts against fifth wave terrorism.

Differences in political conservatism may be related to having witnessed the 9/11 terrorist attack. Individuals who knew somebody directly involved in the 9/11 attack, such as a family member, friend, or neighbor, developed more conservative attitudes and remained more politically involved than individuals who did not personally know a victim (Hersh, 2013). Additionally, among high-exposure survivors of 9/11, 38% became more conservative over time, as opposed to only 13% who became more liberal. The conservative shift occurred across all political parties.

This conservative shift could cause witnesses of fourth wave attacks to be more supportive of security policies meant to counter these sorts of attacks. Jenkins-Smith and Herron (2009) found that individuals who aligned more conservatively tended to show the greatest support for current government security measures and to be the least concerned when questions about civil liberties emerged. Such security measures against fourth wave attacks include the use of drone strikes and surveillance of those suspected to have ties to fourth wave terrorist groups. The same levels of support may not be found for security measures intended to combat fifth wave attacks, such as implementing new gun regulations or conducting surveillance of Americans who may have farright sympathies. Therefore, political conservativism was included in the model as a moderator of the indirect effect on support for counterterrorism security measures. Additionally, age has been linked positively with conservatism (Truett, 1993), Therefore, political conservativism was included in the model as a moderator of the indirect effect on support for counterterrorism security measures.

#### Framework

Figure 2 illustrates the causal pathway proposed in this study. Age will predict support for security measures indirectly through witnessing a terrorist attack and the resulting attributions formed from witnessing these attacks. First, the age of a person affects the extent to which that

person "witnessed" terrorist attacks that are characteristic of the fourth, versus the fifth, wave of terrorism. People who primarily witnessed fourth wave attacks may have witnessed them differently than those who witnessed fifth wave attacks, especially in different forms of media. The extent to which they witnessed a fourth or fifth wave attack may affect their opinions about the causes of the attacks, as their differences in witnessing these different waves may serve to allow them to develop differing attributions. These differing attributions will then affect what they believe to be the correct course in combatting them, which affects their support for security measures enacted by the government in response to the fourth, versus fifth, waves of terrorism. Witnessing and attributions were chosen for explaining effects of age on support of security measures, because someone who witnessed more fourth wave attacks firsthand than a younger witness who primarily witnessed fifth wave attacks would possibly form different attributions for why these attacks happen. Examples of this include findings such as that fourth wave witnesses may not consider certain fifth wave attacks to be terrorism if the perpetrator was not Islamic (Dolliver & Kearns, 2022). Those who then witness certain attacks may have certain attributions that non-witnesses may not have, the result of this is possible support of different security measures. Some examples of this include that fifth wave witnesses may be more supportive of security measures such as new gun control regulations, (Haenschen & Tedesco, 2020; Wu, 2018).

In addition to this, political conservativism moderates the effect of the mediation, such that the extent to which attributions mediate the relationship between witnessing terrorist attacks and support for security measures depends upon one's level of political conservativism. The reason for this is because it could be expected that the more conservative a witness to fourth or fifth wave terrorism is, the more likely they may be to attribute certain causes of these attacks. Attributing attacks to interpersonal/intrapersonal causes, such as a person's life experiences, may be more

likely the more conservative a person is. Research has shown that witnesses of fourth wave attacks become more conservative after witnessing the attacks, (Hersh, 2013). This increase in conservativism could also affect how fourth wave attacks are attributed, and ultimately, the security measures that are supported. Additionally, conservativism could affect the relationship between attributions for attacks and support for security measures. For example, more conservative respondents could be more supportive of measures such as enhanced interrogation because they attribute attacks to be caused by outsiders, as fourth wave terrorists are typically foreigners, which may prime these witnesses to not care about what happens to them when captured or found. Those who are less conservative may instead push for alternative security measures due to favoring civil liberties when asked about security measures such as surveillance of those with ties to fourth wave groups (Jenkins-Smith & Herron, 2009). Two models were created, one for fourth wave terrorism, and one for fifth wave terrorism.

## The Current Study

Prior to conducting data analysis for the main study, a pilot study was conducted that aimed to gauge the most common attributions for terrorist attacks characteristic of both the fourth and fifth waves so that these causes could be included in questions asked of participants during the main study. The answers were coded the most frequent causes were implemented into the main survey.

In the main study, participants completed a survey in which they were questioned about the extent to which they witnessed exemplars of fourth and fifth wave terrorism, their perceptions of the causes of those attacks, their support for security measures to counter those attacks, their perceptions of the characteristics of terrorist attacks, in general, and their level of conservativism.

A path analysis was carried out to determine whether the causal pathway described earlier could explain the extent of participants' support for counterterrorism measures.

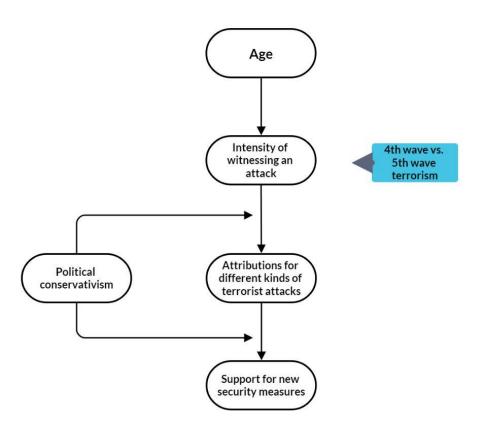


Figure 2: Theoretical framework with the pathway through which witnessing attacks are hypothesized to indirectly affect support for security measures.

#### RESEARCH METHODS

## **Participants**

Participants were recruited using the online survey platform Mechanical Turk. Mechanical Turk "workers" are recruited through a website, where tasks are posted by "requesters." The website allows the requester to filter workers through qualifications, such as their degree of success in completing other tasks in the past on Mechanical Turk. Workers can also be screened by approval rate, location, and self-created qualifications. To be eligible to take both the pilot survey and the main survey, workers were required to reside within the United States and be at least 18 years of age. Both surveys were marked "private" visibility in Mechanical Turk, which means that only those workers who met the criteria were allowed to preview the survey.

Fifty participants completed the pilot study. They were compensated at a rate of \$1.00 for completing the survey.

300 participants completed the survey. This number was chosen due to meeting the criteria of "Good" for conducting factor analyses (VanVoorhis & Morgan, 2007). Attention check questions were included in the survey to ensure that participants were paying attention. If participants answered two attention check questions incorrectly, their participation in the survey ended and they were only compensated 50 cents for starting the survey. Seven participants terminated the survey early, resulting in a sample of 293 participants. Those participants who completed the survey were compensated with a bonus of \$2.50, resulting in a total compensation of \$3.00 each, upon verification of completing the survey. Participants were compensated no later than three days after their completion of the study. The survey was anonymous; no identifying information was recorded or retained.

The mean age of all respondents was 36.83 with a standard deviation of 11.13 years. Most of the sample indicated that they were White/non-Hispanic with a rate of 76.8% of the sample. 64.2% of the sample identified as male, while the remaining 35.8% identified as female (no responses for answer choices nonbinary or prefer not to answer were received). 97.3% of the sample had some degree of college experience, with 78.2% indicating that they had completed a bachelor's degree, and 13.3% indicating they had completed a graduate degree. 54.2% of the sample indicated that they make at least \$50,000 a year, with the remaining 45.8% making under \$50,000 (Refer to Table 1.)

Table 1: Demographics

	Mean	Standard Deviation
Age	36.83	11.128
Age	Frequency	Percent
20-24	12	4.1
25-29	61	20.8
30-34	70	23.9
35-39	66	22.5
40-44	18	6.1
45-49	22	7.5
50-54	14	4.8
55-59	8	2.7
60-64	12	4.1
65-68	10	3.4
Ethnicity	Frequency	Percent
Hispanic/Latinx	24	8.2
White/Non-Hispanic	225	76.8
Black/Non-Hispanic	4	1.4

American Indian or Alaska Native/Non-Hispanic	1	.3
Asian/Non-Hispanic	31	10.6
Native Hawaiian or Other Pacific Islander/Non-Hispanic	1	.3
Other Non-Hispanic	7	2.4
Gender	Frequency	Percent
Male	188	64.2
Female	105	35.8
Education	Frequency	Percent
High School Diploma	8	2.7
Some College	17	5.8
Bachelor's degree	229	78.2
Graduate Degree	39	13.3
Annual Income	Frequency	Percent
Less than \$10000	12	4.1
10000-14999	16	5.5
15000-24999	32	10.9
25000-49000	74	25.3
50000-99000	130	44.4
100000-149000	25	8.5
	-	
150000-199000	3	1.0

# **Pilot Study**

In the pilot study survey, participants were presented with details of three exemplars each of fourth- and fifth-wave terrorist attacks and asked open-ended questions about the top three causes for these terrorist attacks. They were also given the option to list a fourth cause. The three exemplars of fourth-wave attacks were those occurring in Fort Hood (2009), The Boston Marathon

Bombing (2013), and San Bernadino (2015) (details provided below) and the exemplars of fifthwave attacks were those that occurred in Charleston (2015), Pittsburgh (2018), and El Paso (2019) (details provided below). These attacks were chosen to represent fourth and fifth wave terrorism due to their similar scale, such as loss of life, or injuries caused, or a combination of both. These attacks would have also received a similar amount of media coverage. Other attacks may have been more notable but were so impactful and notorious that they would have been immediately recognizable and would have been too different from the other attacks in scale. The most prominent example of this would be the September 11<sup>th</sup>, 2001, World Trade Center attacks, which would likely be the first answer choice given by anybody when asked to name a fourth wave terrorist attack. Including the September 11<sup>th</sup> attacks in the pilot (and main) survey could have skewed some of the results about what causes these attacks to occur, as well as the witnessing scale that is used in the main survey, as most people would have remembered the World Trade Center attacks if they were old enough to go to school. Thus, the six attacks that were chosen were similar in their severity and would have received a similar amount of news coverage in their aftermath.

Out of the fifty responses, thirty-one were usable, as nineteen participants provided text responses that were unrelated to the content of the questions. Preliminary coding of the answers was conducted by the primary researcher, resulting in ten categories: (1) Radicalization, (2) Religious/Political Extremism, (3) Religion, (4) Mental Health, (5) Life Experiences, (6) Physical Security, (7) US Policy, (8) Internet Radicalization/Hackings, (9) Access to weapons, and (10) Racism/White Nationalism. The author coded all thirty-one responses, and a second coder coded fifteen responses. Reliability was calculated for each of the eight questions using Cohen's Kappa. The reliability coefficients demonstrate good inter-rater reliability (greater than .74 for all questions and .82 for six questions) and are displayed in Table 2.

Table 3 displays the most frequent causes cited by participants within each of the rankings regarding the exemplars of fourth- and fifth-wave terrorism. The three most frequent causes of fourth-wave terrorism and the three most frequent causes of fifth-wave terrorism were selected to be incorporated into questions in the main survey. The following six causes were selected: Radicalization, Mental Health, Life Experiences, US Policy, Internet Radicalization/Hacking, and Racism/White Nationalism. It should be noted that there was much overlap in participants' attributions for fourth-wave and fifth-wave attacks.

Table 2: Inter-Rater Reliability Statistics for Pilot Study

Pilot Study Question:	Average Inter-Rater Reliability (Cohen's Kappa)
Fourth Wave 1	.823
Fourth Wave 2	.93
Fourth Wave 3	.895
Fourth Wave Extra	.749
Fifth Wave 1	.9
Fifth Wave 2	1.00
Fifth Wave 3	.933
Fifth Wave Extra	.735

Table 3: Coding Frequencies for Instances of Attributions to Fourth Wave Terrorist Attacks

Cause	<u>Description</u> <u>Fourth wave</u>		<u>ave</u>	<u>Fifth wave</u>			
		<u>1st</u>	2 <sup>nd</sup>	3 <sup>rd</sup>	<u>1st</u>	<u>2<sup>nd</sup></u>	3 <sup>rd</sup>
1	Radicalization: (General, through friends, family, magazines, etc.)	9 (22.5%)	3 (7.3%)	4 (11.4%)	2 (5.3%)	1 (2.9%)	3 (8.1%)
2	Religious/Political Extremism: (Due to being part of a group with known extremist ties or goals.)	7 (17.5%)	4 (9.8%)	4 (11.4%)	3 (7.9%)	1 (2.9%)	3 (8.1%)
3	Religion: (Religion solely as the cause.)	6 (15.0%)	3 (7.3%)	2 (5.7%)	0 (0%)	1 (2.9%)	0 (0%)
4	Mental Health: (Mentions of support systems or lack thereof.)	4 (10%)	7 (17.1%)	5 )(14.3%)	6 (15.8%)	5 (14.3%)	7 (18.9%
5	Life Experiences: (Poverty, education, criminal history, etc.)	1 (2.5%)	7 (17.1%)	5 )(14.3%)	1 (2.6%)	7 (20%)	2 (5.4%)
6	Physical Security: (On-site security, cameras, metal detectors, etc.)	2 (5.0%)	0 (0%)	1 (2.9%)	2 (5.3%)	1 (2.9%)	0 (0%)
7	US Policy: (Foreign or Domestic.)	7 (17.5%)	5 )(12.2%)	4 )(11.4%)	0 (0%)	2 (5.7%)	3 (8.1%)
8	Internet Radicalization/Hacking: (Joining hacker groups, exposure to extremist groups while on the internet.)	3 (7.5%	4 (9.8%)	4 (11.4%)	6 (15.8%)	3 (8.6%)	7 (18.9%)
9	Access to Weapons: (Ease of acquiring firearms, bomb parts, etc.)	1 (2.5%)	4 (9.8%)	2 (5.7%)	3 (7.9%)	1 (2.9%)	4 (10.8%)
10	Racism/White Nationalism: (Attacks conducted due to racial factors.)	0 (0%)	4 (9.8%)	4 (11.4%)	15 (39.5%)	13 (37.1%)	8 (21.6%)

### Measures

Participants completed a survey consisting of 78 questions. The questions addressed each construct identified in the causal pathway. The full survey may be found in the Appendix. The measurement of each construct is described below.

# **Type of Terrorist Attack Witnessed**

Participants were asked about the extent to which they witnessed specific terrorist attacks from each wave. Witnessing a terrorist attack is defined here as whether the participant had several meaningful memories of the attack during the time in which it occurred. Fifteen questions

(Questions 1-15) asked respondents about their memories surrounding instances of fourth-wave terrorism, such as news reports or discussions with others. The questions concerned the following three attacks: Fort Hood, Texas Terrorist Mass Shooting (2009), The Boston Marathon Bombing (2013), and the attack on the Inland Regional Center in San Bernadino, California (2015). The same fifteen questions (Questions 30-44) were asked again later in the survey about instances of fifth-wave terrorism: The Emanuel African Methodist Episcopal Church Shooting in Charleston, South Carolina (2015), The Pittsburgh Tree of Life Synagogue Shooting (2018), and El Paso, Texas, Walmart Shooting (2019). For each attack, participants were first asked whether they have any memories of the attack. If they did not, the survey proceeded to introduce the next attack. If they did, they were presented with five questions about each attack. Each question was measured on a 5-point Likert scale, with an answer of 1 indicating "strongly disagree" and 5 indicating "strongly agree". If the participants had indicated that they have no memories of the attack, the subsequent five questions that they did not answer were coded 0.

#### **Attributions for Terrorist Attacks**

Seven questions measured participants' beliefs about the causes of the three exemplars of fourth-wave terrorism (Questions 16-22) and the three exemplars of fifth wave (Questions 45-51) terrorism. Participants were asked about their agreement that six factors were causes of those terrorist attacks on a 5-point Likert scale, with an answer of 1 indicating "strongly disagree" and 5 indicating "strongly agree". These factors were derived from the responses provided during the pilot study. Participants were then asked one open-ended question about other factors that they considered to be causally related to each of these sets of terrorist attacks.

## **Support for Security Measures**

Six questions (Questions 23-28) inquired about participants' support for security measures to counteract fourth-wave terrorism, such as increased security at public institutions, new gun regulations, support of police searches, and increased government surveillance. Similar questions asked about support for security measures in response to fifth-wave terrorist attacks (Questions 52-57). Each question was measured on a 5-point Likert scale, with 1 indicating "strongly disagree" and 5 indicating "strongly agree".

#### **Political Conservativism**

To measure political conservativism, items from Everett's (2013) 12-item Social and Economic Conservativism Scale were used. The SECS was chosen due to its high number of citations in other academic works (435 on Google Scholar), indicating that is a reliable and good measure of political conservativism. The SECS has respondents rank 12 issues on a scale of 0 to 100, with 0 indicating greater negativity, and 100 indicating greater positivity. Seven of the items measure social opinions and the remaining five measure economic opinions. The scale has good internal reliability,  $\alpha = .88$  and acceptable factorial validity. Six of the twelve items were included in the survey (Questions 59-64). The items concerned limited government (economic), military and national security (social), gun ownership (economic), traditional values (social), fiscal responsibility (economic), and patriotism (social).

## **Definitions of Terrorism**

Seven questions (Questions 66-72) presented hypothetical attacks with varying characteristics. The questions varied concerning whether the motive, target, and weapon were mentioned and regarding the nature of the motive, target, or weapon. After reading about each

hypothetical attack, respondents were asked if it they considered the attack to be terrorism. Participants answered either "yes" or "no" to the first six questions. The final question in this section was an open-ended question where respondents were instructed to list anything else that they believed constituted a terrorist attack.

## **Demographics**

The final five questions on the survey (Questions 74-78) were demographic questions. Questions about age, ethnicity, gender, income, and education were included.

## **Attention Checks**

Four questions (Questions 29, 58, 65, and 73) were interspersed throughout the survey to assess whether participants were paying attention to the material in the survey. Two questions instructed participants to select a specific answer choice. Two asked participants to recall details of the attack exemplars. If a participant answered two of these four questions incorrectly, then the survey terminated, and their data were not included in the dataset.

## **PROCEDURE**

This project was determined to be exempt from IRB review. Participants recruited through Mechanical Turk were provided with a link to the survey through the Mechanical Turk website. The survey was administered through QuestionPro, a platform for surveys that is provided through a license with UTEP. There was a consent form in the survey. After reading the survey, participants answered either "Yes" or "No" that they agreed to take part in the research. The survey took an average of 30.10 minutes to complete.

The survey data was stored in UTEP's Microsoft OneDrive and on an encrypted computer.

No identifying data was stored with the data.

#### RESULTS

# **Preliminary Analyses**

Analyses were initially conducted to determine the internal reliability of the items that comprised the scales. Hunsley and Mash (2008) and Streiner (2003) proposed the following criteria for establishing internal reliability: "adequate" is > .70, "good" is > .80, and "excellent" is > .90. For the witnessing terrorism scales, the internal reliability was excellent for both the fourth-(Cronbach's  $\alpha =$  .948) and fifth-wave (Cronbach's  $\alpha =$  .963) scales. Therefore, two separate scales were created, one that measures the extent to which fourth-wave terrorist attacks were experienced and one that measures the extent to which fifth-wave terrorist attacks were witnessed. To create the scales, the Likert-scale items were averaged across all three attacks. Therefore, the resulting scale scores could range from 0 to 5.

The decision was made to not create attribution scales for two reasons. First, contrary to what was expected, participants in the pilot study did not attribute fourth-wave attacks to primarily systemic factors and fifth-wave attacks to primarily intrapersonal factors. Second, there was significant overlap in the factors attributed as causes for fourth- and fifth-wave attacks. Understanding effects on, and of, individual causes was thought to be more informative than combining the factors into scales.

The open-ended attribution items were coded by the author using the coding scheme developed in the pilot study. There were 105 valid answers for fourth wave responses and 85 valid answers for fifth wave responses. Internet Radicalization, Religious/Political Extremism, and US Policy were identified as the top three responses for attributions to fourth wave attacks. For fifth

wave attacks, hate crimes/White Nationalism, Life Experiences, and Radicalization were identified as the top three responses.

Table 4: Coding Responses for Forth Wave and Fifth Wave Attributions

Code	Cause	Fourt	h Wave	Fifth Wave			
		Frequency	Percent	Frequency	Percent		
1	Radicalization	12	11.4	13	15.5		
2	Religious/Political Extremism	15	14.3	10	11.9		
3	Religion	2	1.9	1	1.2		
4	Mental Health	12	11.4	7	8.3		
5	Life Experiences	8	7.6	13	15.5		
6	Physical Security	3	2.9	2	2.4		
7	US Policy	14	13.3	4	4.8		
8	Internet	23	21.9	11	13.1		
	Radicalization/cyberattacks						
9	Access to	4	3.8	2	2.4		
	Firearms/Explosives/Weapons						
10	Hate Crimes/White Nationalism	12	11.4	21	25.0		

The internal reliability of six security items pertaining to the exemplars of fourth-wave attacks was Cronbach's  $\alpha$  = .758. The red flag law did not correlate well with the other five items (r = .091 to .229). Therefore, the fourth-wave security measure support scale excluded this item. The inter-rater reliability of the five-item scale was  $\alpha$  = .780. The internal reliability of the six security items pertaining to the exemplars of fifth-wave attacks was Cronbach's  $\alpha$  = .737. Therefore, two scales measuring support for security measures were created, one for measures to

address fourth-wave terrorism and one for measures to address fifth-wave terrorism. The fourth-wave scale was created by averaging across five security items, excluding the item pertaining to red-flag laws, which was entered into the analyses separately. The fifth-wave scale was created by averaging across all six security items. Scores for the security scales could vary from 1 to 5.

The internal reliability of the political conservativism scale was good (Cronbach's  $\alpha$  = .807). The scores on each of the six items were averaged to create a single political conservativism score, which could vary from 0 to 50.

Table 5 provides a correlation matrix demonstrating the inter-correlation of all the items/scales. As can be discerned from this table, there are a multitude of correlations among the items. For instance, we can see there are variables with strong correlations to several other items on the scale. For example, the Wave four witness scale correlated with the Wave five witness scale, age, and Wave five mental health. The Wave five witness scale correlated with the causal factors Wave five mental health, US Policy, and internet radicalization. The Wave four security scale correlated with all the Wave four causes, Wave four red flag laws, the Wave five causes, and the Wave five security scale. The Wave five security scale correlates with all Wave four and five causes, and Wave four red flag laws. Age only correlated with the Wave four witness scale, the Wave four upbringing causal factor, Wave four red flag laws, and Wave five US Policy causal factor. Interestingly, all causal factors correlated, whether they were regarding fourth- or fifthwave terrorism. Additionally, the correlations between witness scales and security support scales were very strong, indicating that the participants had similar beliefs about, and attitudes towards, fourth- and fifth-wave terrorism and how to counter it. Table 6 displays the descriptive statistics for each item/scale. The table indicates the frequency and percentage of participants who indicated that they remembered some details of each attack. Also displayed are the mean and standard

deviations of the extent to which participants witnessed each attack and the means and standard deviations of the scales and the causal items.

Table 5: Correlation Matrix

	Wave4 Witness Scale	Wave4 Cause 1	Wave4 Cause 2	Wave4 Cause 3	Wave4 Cause 4	Wave4 Cause 5	Wave4 Cause 6	Wave4 Security Scale	Wave4 Security 2	Wave5 Witness Scale	Wave5 Cause 1	Wave5 Cause 2				5 Wave 5 Caus		urity	Conserv ative Scale	Age
Wave4 Witness Scale																				
Wave4 Cause 1	053																			
Wave4 Cause 2	.075	.154**																		
Wave4 Cause 3	041	.251**	.115*																	
Wave4 Cause 4	.018	.255**	.126*	.129*																
Wave4 Cause 5	.071	.360**	.204**	.251**	.088															
Wave4 Cause 6	.063	.135*	.212**	.289**	.248**	.076														
Wave4 Security Scale	.015	.272**	.161**	.216**	.303**	.267**	.337**													
Wave4 Security 2	.011	.100	.109	.239**	.208**	.153**	.223**	.236**												
Wave5 Witness Scale	.799**	031	.056	.004	.043	.066	.092	.004	.020											
Wave5 Cause 1	036	.333**	.259**	.269**	.237**	.318**	.205**	.206**	.146*	018										
Wave5 Cause 2	.121*	.258**	.346**	.253**	.159**	.182**	.321**	.257**	.131*	.164**	.191**									
Wave5 Cause 3	018	.203**	.234**	.315**	.223**	.225**	.210**	.279**	.258**	.023	.362**	.173**								
Wave5 Cause 4	.077	.079	.102	.195**	.308**	.122*	.329**	.431**	.143*	.160**	.159**	.195**	.033							
Wave5 Cause 5	.062	.252**	.221**	.303**	.204**	.225**	.214**	.249**	.234**	.116*	.233**	.317**	.287**	.056						
Wave5 Cause 6	022	.352**	.241**	.270**	.156**	.225**	.138*	.148*	.103	.018	.264**	.355**	.270**	.114	.165**					
Wave5 Security Scale	013	.297**	.221**	.307**	.310**	.289**	.367**	.807**	.385**	.037	.257**	.263**	.263**	.455**	.326**	.211**				
Conserv ative	016	.125*	.125*	.048	.141*	.060	.228**	.388**	049	.008	.064	.158**	.008	.364**	.058	.001	.317**			
Scale Age	.173**	095	082	166**	051	076	098	093	135*	.075	014	108	104	121*	.038	065	103	0	16	

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed) \* Correlation is significant at the 0.05 level (2-tailed).

Table 6: Item/Scale Descriptive Statistics

Attack	Frequency	Percent remembered
	remembered	
Fort Hood	164	56.0
San Bernadino	175	59.7
Boston Bombing	190	64.8
Charleston	174	59.4
Pittsburgh	179	61.1
El Paso	181	61.8
Witnessing Scales Fourth Wave	Mean	Standard Deviation
Fort Hood	2.1980	1.98702
San Bernadino	2.2858	1.93317
Boston Bombing	2.5691	1.94535
All Fourth Wave	2.3501	1.60154
Witnessing Scales Fifth Wave	Mean	Standard Deviation
Charleston	2.3089	1.95666
Pittsburgh	2.4113	1.96541
El Paso	2.4266	1.94777
All Fifth Wave	2.3823	1.69708
Attributions	Mean	Standard Deviation
Fourth Wave		
Radicalization	3.92	.652
Mental Health	3.99	.807

Life Experiences	3.88	.759
US Policy	3.90	.797
Internet Radicalization/Hacking	3.87	.800
Racism	3.89	.830
Fifth Wave		
Radicalization	3.83	.694
Mental Health	4.01	.738
Life Experiences	3.86	.791
US Policy	3.73	.828
Internet Radicalization/Hacking	3.89	.780
Racism	3.97	.721
	3.6	G: 1 1 D : : :
Security Measures Fourth Wave	Mean	Standard Deviation
No-fly List	4.25	.826
No-fly List	4.25	.826
No-fly List Red Flag Laws	4.25 4.20	.826 .746
No-fly List Red Flag Laws Patriot Act	4.25 4.20 3.96	.826 .746 .949
No-fly List Red Flag Laws Patriot Act Monitoring Online Activities	4.25 4.20 3.96 4.02	.826 .746 .949 .930
No-fly List Red Flag Laws Patriot Act Monitoring Online Activities Online Surveillance if Expressed Support for	4.25 4.20 3.96 4.02	.826 .746 .949 .930
No-fly List Red Flag Laws Patriot Act Monitoring Online Activities Online Surveillance if Expressed Support for Terrorist Groups	4.25 4.20 3.96 4.02 4.08	.826 .746 .949 .930 .889
No-fly List Red Flag Laws Patriot Act Monitoring Online Activities Online Surveillance if Expressed Support for Terrorist Groups Police Searches if Voiced Support for	4.25 4.20 3.96 4.02 4.08	.826 .746 .949 .930 .889
No-fly List Red Flag Laws Patriot Act Monitoring Online Activities Online Surveillance if Expressed Support for Terrorist Groups Police Searches if Voiced Support for Terrorist Groups	4.25 4.20 3.96 4.02 4.08	.826 .746 .949 .930 .889

Red Flag Laws	4.21	.755
Patriot Act	4.00	.921
Monitoring Online Activities	3.97	.913
Online Surveillance if Expressed Support for	4.06	.847
Domestic Far-Right Groups		
Police Searches if Voiced Support for	4.07	.891
Domestic Far-Right Groups		
Wave 5 Security Scale	4.09	.563
	Mean	Standard Deviation
Conservativism Scale	72.06	14.66

## **Definitions of Terrorism**

Table 7 displays the variation of items concerning the definition of terrorism among three factors: motivation, target, and weapon. Recall that participants indicated whether they believed that each attack was, or was not, terrorism. Each item was considered by most participants to have been an act of terrorism. Cluster analyses were conducted to determine which of these items were most closely aligned based on participants' responses. Hierarchical cluster analysis was conducted using the nearest neighbor, single linkage method. Figure 3 is a dendrogram displaying the squared Euclidian distance between the items. Items 1, 4, and 6 appeared most closely linked. Item 5 appeared to form a separate cluster. Additional analyses were conducted using Ward's method, which maximizes the significance of the distance between clusters. These results supported the initial impressions. Finally, an additional analysis was conducted without Item 5. This analysis revealed that Items 2 and 3 also appear to form separate clusters. Therefore, Cluster 1 includes

Items 1, 4, and 6, Cluster 2 includes Item 2, Cluster 3 includes Item 3, and Cluster 4 includes Item 5. Participants were more likely to agree that the attacks described in Cluster 1 were acts of terrorism (%) than those described in the other clusters (% in Cluster 2, % in Cluster 3, and % in Cluster 4)

Table 7: Definitions

	Motivation	Target	Weapon	Frequency/percentage		
				endorsed		
Item 1	Religion	Place of Worship	Firearm	281 (96.2%)		
Item 2	None Stated	Local Minorities	None Stated	240 (81.9%)		
Item 3	None Stated	Local Store	Firearm	245 (83.9%)		
Item 4	Government Policy	Government Building	None Stated	253 (86.3%)		
Item 5	None Stated	Public School	Bomb	238 (81.2%)		
Item 6	None Stated	Community Event	Firearm	255 (87.0%)		

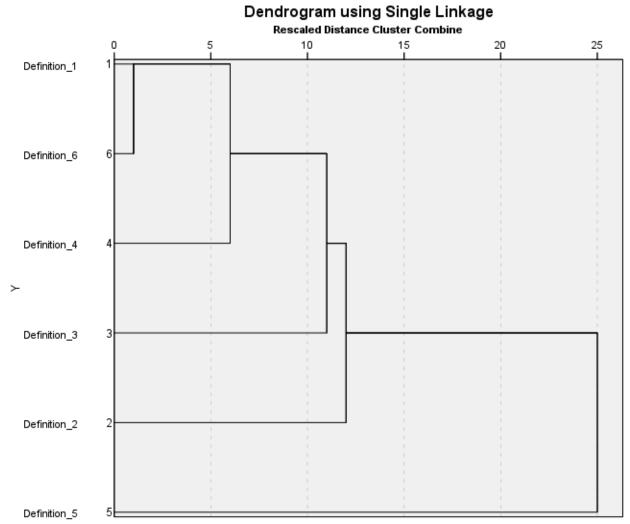


Figure 3: Dendrogram displaying the squared Euclidian distance between items.

The attacks described by the items in Cluster 1 targeted large gatherings of people, and two of the items described attacks conducted with firearms. Cluster 2 described an attack with racist intent and the type of weapon was not mentioned. Cluster 3 described a bombing of a public school and motivation was not mentioned. Cluster 4 described a shooting inside of a local store with an unknown motivation.

The items comprising Cluster 1 may have clustered together because the targets of the attack, a church, a government facility, and a community event, are more likely to include a

prominent figure or specific group than the targets described in the other clusters. Therefore, the participants may have thought that these attacks would have been premeditated to cause panic or fear. The other items, meanwhile, may not have formed clusters, and been less likely to yield agreement that the attacks they described were acts of terrorism, because participants believed that the victims in these locations were random, and not deliberately targeted to incite fear or panic.

Looking at this data, it appears that the location of the attack was the most important factor in how participants decided if events were considered terrorism. Motivation may also be a crucial factor in these attacks. Participants may be inclined to think an attack is more likely to be terrorism if the attack is premeditated. Motivations of an attacker may also affect what people associate with acts of terrorism. Items 1 and 4 were the only two to have distinct motivations for their attacks, religion, and government policy respectively. The remaining items do not have a distinct motivation. The presence of a distinct motivation may indicate that people may be more likely to identify it as terrorism.

Weapons also play a key role in these definitions due to their ability to cause widespread damage in a short amount of time. For example, two of the attacks included in Cluster 1 involved the use of firearms. The attack described in Cluster 3 also involved a firearm, and the attack described in Cluster 4 involved a bomb. Cluster 2 is the only attack to neither have a known motivation, nor a specific weapon of attack. Cluster 2 was also second-least likely to be identified by participants as being an act of terrorism. Cluster 3 has response rates closer to Cluster 1, and had a firearm used in its attack. Cluster 4 had a bomb as the weapon, interestingly, it was the cluster with the lowest likelihood of being identified as terrorism.

In summary, it appears that people associate any attack that results in a considerable loss of life with terrorism. However, certain other factors may make them more convinced than an

attack is associated with terrorism. If participants have concrete details of the factors of location, motivation, and weapon type, they are increasingly likely to categorize attacks as acts of terrorism. For motivation, having a clear and known motivation appears to be the biggest factor in how people define terrorism. Weapon type is also important, although people may assign different weight to an attack depending on what type of weapon was used. For example, the clusters with a firearm attack were more likely to be endorsed as terrorism over events with either no known weapon or Cluster 4 which was conducted with a bomb. Within these three categories, there are subcategories such as premeditation that further the likelihood of considering an attack to be an act of terrorism.

# **Testing the Causal Pathway**

To test the causal pathway from age to witnessing terrorist attacks to attributions of attacks to support for security measures, path models were tested in MPlus. The initial models only included tests of the direct and indirect paths, which were tested using bootstrapped confidence intervals (1000 samples). Any direct or indirect paths that were significant were then tested to determine whether conservativism moderated the effects.

Model 1 (see Figure 4) examined the direct and indirect effects pertaining to fourth-wave terrorism. As expected, age predicted the Wave 4 witnessing scale; older individuals reported witnessing the exemplars of Wave 4 terrorism to a greater extent. However, the witnessing scale did not predict the extent to which participants endorsed any of the six factors as causing the attacks. Among these factors, the more that participants endorsed that there were possible life experience causes of the attacks, such as criminal history and drug/alcohol use, the more they supported red flag laws to counter the attacks. The more that they endorsed US Policy, Racism, and Internet Radicalization as causes of the attacks, the greater the Wave four security scale score. Finally, consistent with the findings on internal reliability, the Wave four security scale scores did

not correlate with support of red flag laws, which is why this item was not included in the scale. None of the indirect effects were statistically significant and the coefficients were all very close to zero.

Model 2 was a revised Wave 4 model, removing the non-significant paths and adding conservativism as a moderator for the paths that were significant in Model 1. There were paths from the life experience causal factor, the conservativism scale, and the interaction between them, to support for red flag laws. Conservativism did not moderate the relationship between life experience causes and support for red flag laws, B = -0.004, p = 0.831. In addition, there were paths from US Policy, Internet Radicalization, and Racism, conservativism, and the interaction between each cause and conservativism to the security support scale. The interactions between conservativism and these causal factors were not significant: US Policy, B = 0.004, p = 0.352, Internet Radicalization, B = -0.005, p = 0.344, or Racism, B = -0.002, D = 0.538.

Model 3 is the final Wave 4 model, depicted in Figure 5, and only contains the pathways that were significant. A Chi-Square Test of Model Fit was conducted, returning  $\chi^2(4) = 19.393$ , p < 0.001. In addition, Root Mean Square Error of Approximation (RMSEA) of the model was 0.115, well above the adequate threshold of 0.05, which indicates a poor fit of the data to the model. The CFI was 0.843 but should be greater than 0.95. Lastly, the Standardized Root Mean Square Residual (SRMR), which should be less than 0.06, was 0.081. These model fit indices indicate that even though all of the pathways were significant, the model did not explain the data well.

Model 4, illustrated in Figure 6, examined the same causal pathways as Model 1, but the items and scales corresponded to experiences and perceptions of fifth-wave terrorism. In this model, red flag laws did correlate with the other security-related items, so the security support

scale included all six items, including support for red flag laws. Unlike in Model 1, age did not predict the extent to which individuals witnessed Wave five attacks. The Wave five witnessing scale predicted participants' endorsement of mental health and US Policy as causes for the exemplars of fifth-wave terrorism. In addition, the causal factors Life Experiences, US Policy, and Internet Radicalization positively predicted security support scale scores. None of the indirect effects from age to the witnessing scale to each of the causal attributions for terrorism to support for security measures were statistically significant. All the coefficients were very close to zero.

Model 5 is identical to Model 4, except that the effects of age were removed. The results were almost identical to those of Model 3, except that the indirect effect from the Wave 5 witnessing scale to the US Policy causal factor to the Wave 5 security support scale was statistically significant, B = 0.022, 95% CI: 0.004, 0.040. This means that the extent to which respondents witnessed Wave 5 attacks affected their perceptions of whether U.S. policy caused such attacks, which then affected their support for security measures to address Wave 5 attacks. None of the other indirect effects were statistically significant (see Table 8).

Model 6 included the significant pathways from Model 5 and included conservativism as a moderator of those pathways. In the results, conservativism did not moderate the path from the Wave 5 witnessing scale to mental health, B = 0.002, p = 0.344. Conservativism did predict endorsement for mental health, B = 0.015, p = 0.016, but did not moderate the path from mental health to the security support scale, B = 0.011, D = 0.533. Conservativism did not moderate the path from the Wave 5 witnessing scale to US Policy, D = 0.002, D = 0.273. Lastly, conservativism did not moderate the paths from life experiences and internet radicalization to the Wave 5 security scale, D = 0.001, D = 0.885 and D = 0.002, D = 0.622, respectively. In an additional model, Model

6b, conservativism was also not found to moderate the path from US Policy to security support scale, B = 0.002, p = .42.

The last model is Model 7, which includes only those paths that were significant without moderation. The Chi-Square Test of Model Fit returned  $\chi^2(6) = 41.535$ , p < .001. The RMSEA for this model was 0.142, which is well above 0.05. Additionally, the CFI was 0.783, which is well below the suggested threshold of 0.95. The SRMR for this model was 0.106, well above the 0.06 threshold, which again indicates a very poor fitting model.

Table 8: Confidence Intervals of Total, Total Indirect, Specific Indirect, and Direct Effects

Lower .5%	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%	Upper .5%

Effects from Wave 5 Witness to Wave 5 Security										
Sum of Indirect	0.000	0.008	0.012	0.034	0.056	0.061	0.069			
Specific Indirect 1	-0.005	-0.004	-0.003	0.000	0.003	0.003	0.004			
Specific Indirect 2	-0.006	-0.004	-0.003	0.003	0.009	0.010	0.012			
Specific Indirect 3	-0.007	-0.005	-0.004	0.001	0.006	0.007	0.009			
Specific Indirect 4	-0.002	0.004	0.006	0.022	0.037	0.040	0.046			
Specific Indirect 5	-0.005	-0.002	0.000	0.009	0.017	0.019	0.022			
Specific Indirect 6	-0.003	-0.002	-0.002	0.000	0.003	0.003	0.004			

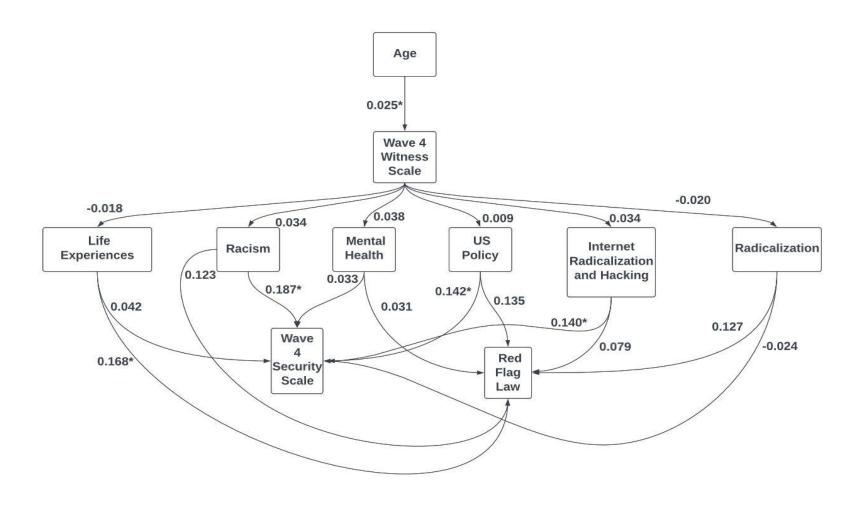


Figure 4: This is Model 1: The Initial Wave 4 Model to Test the Causal Pathways Without Moderation:

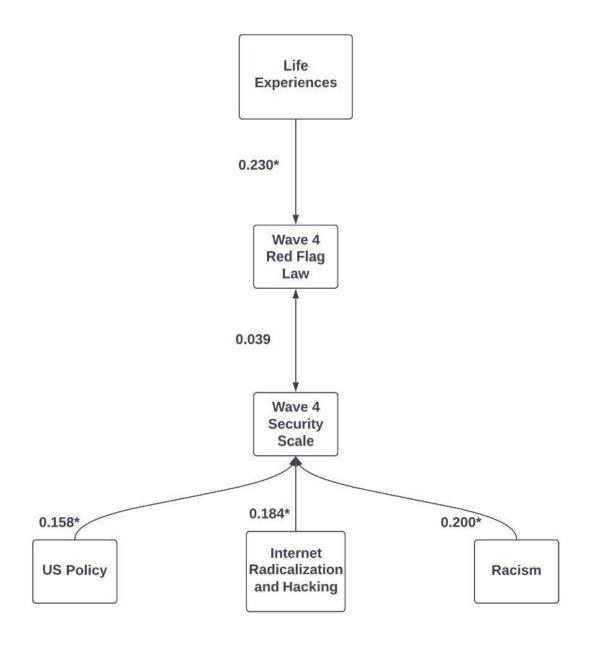


Figure 5: This is Model 3: The Final Wave 4 Model with only those Pathways that were Significant.

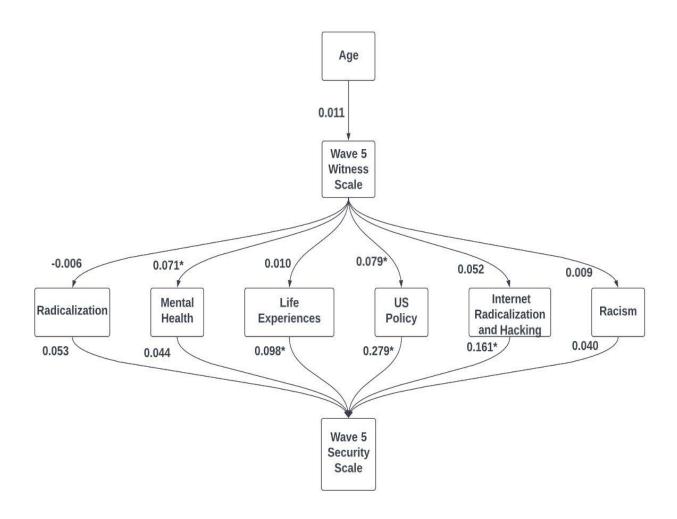


Figure 6: This is Model 4: The Initial Wave 5 Model to Test the Causal Pathways Without Moderation

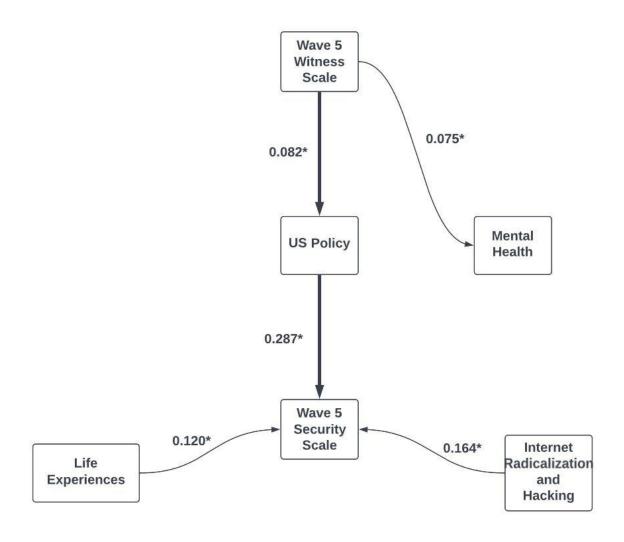


Figure 7: Model 7: Wave 5 Model with only Significant Relationships

#### DISCUSSION

This research tried to explain variation in people's support for security measures meant to counter terrorist attacks. It was expected that differences in age would lead to witnesses of Wave four and Wave Five attacks attributing attacks differently from each other, and that these attributions would lead to different levels of support for security measures. The analysis found that the extent to which one witnessed attacks did not, for the most part, explain the attributions one made for the attacks. However, attributions did partially explain support for security measures, particularly life experiences, US policy, and internet radicalization which predicted support for security measures related to both Wave four and Wave five attacks. This means that the more a participant considered that attribution as a cause for a terrorist attack, the more likely they were to support security measures.

There is discussion to be had regarding how all mass shooting events are categorized. Some may argue that mass shootings are terrorism no matter what. Table 7 seems to support this claim, with all items involving a firearm as the weapon of attack returning at least 80% of participants agreeing that it was an act of terrorism. The definitions of terrorism section of the survey were meant in part to see whether people felt mass shooting events were acts of terrorism. There is also precedent to this. Hunter, Ginn, Storyllewellyn & Rutland in 2021 conducted an analysis of 105 mass shooting events in the United States from the past forty years. They used four key criteria from various standards and international definitions of terrorism. They found that 43% of mass shootings met all four criteria, and another 39% met three of the four criteria, concluding that mass shootings fit the definitions of terrorism better than what may be reported by news sources and government officials.

While age predicted the extent to which one witnessed fourth-wave terrorism, it did not predict the extent to which fifth-wave terrorism was witnessed. This makes sense because fifth wave terrorism is newer than fourth wave terrorism. So, some of the fourth wave would have occurred at times when younger people were children or before they were born. Once fifth wave terrorism became more common, these witnesses who were either children, or unborn, would have been aware of the attacks since they were more recent, along with those who also witnessed fourth wave attacks. However, contrary to expectations, age did not correlate with most of the causal factors or with support for security measures, other than red-flag laws. Approximately 25% of the sample were in their twenties. Therefore, this research may not adequately generalize to younger Americans. For Wave four witnesses, it is interesting to note that the extent to which they witnessed an attack did not affect the attributions they made for those attacks, and no indirect effect from witnessing to support for security measures was observed. So, it appears that the participants formed similar attributions for fourth-wave terrorist attacks, whether they witnessed the attacks or not. One explanation of this is that people may form schemas about fourth-wave attacks by watching videos or reading books about them or from fictional accounts that incorporate attacks similar to those that occurred during the fourth wave. A schema is "an active organization of past reactions [or] experiences, which must always be supposed to be operating in any well-adapted organic response." (Bartlett, 1932). Therefore, witnessing these attacks is not necessary to form ideas about the causes of these attacks.

Additionally, there was the red flag law security measure variable that did not correlate with the other security variables related to Wave four attacks, leading to it being analyzed separately. One explanation for this is that red flag laws have been implemented relatively recently, and thus participants may not have formed strong opinion about them. Another possibility is that

participants were unclear about what this law entails. A third explanation is that red flag laws pertain to US citizens and the removal of their firearms, whereas Wave four terrorists, who were often foreign nationals, should not have access to firearms to begin with. Another possibility is that people may be more supportive for red flag laws against fourth wave terrorists as they age because older witnesses may be more fearful of fourth wave terrorists than fifth wave terrorists. Around 77% of people were shown to have support for red flag laws (Zick, 2019), so this may be a possibility.

Of the attributions for Wave four attacks, disagreement with US policy, internet radicalization, and racism were found to predict the Wave four security measure, meaning that the more that people agreed that those factors cause fourth-wave terrorism, the more likely they were to support security measures for Wave four terrorism. These factors may have predicted support for security measures for a variety of reasons. For example, participants could possibly assume that fourth wave terrorists, who were often from other countries, had some sort of personal or ideological grievance with the United States. Those with a dislike or hatred of the United States could have consulted with resources in places such as the internet, where they met or read about other like-minded individuals. These people could have racial or religious differences that make them dislike the United States, its people, or its policies. Additionally, the attribution of life experiences was found to predict support for red flag laws in Wave 4. One possible explanation for this is that people could associate life experience factors such as drug/alcohol usage or criminal history with owning or using firearms, and thus would be in favor of red flag laws that act against dangerous individuals who may own a firearm who become dangerous if given one. So, while that could explain the support for red flag laws, those same reasons would not show the same levels of support for the other security variables. It is possible that life experience factors such as criminal

past and drug use would not cause people to support the other security measures as much, such as police searches and online surveillance, possibly due to factors such as concerns people have with individual liberties. We could also reasonably anticipate life experiences to associate with mental health, as mental health is the main reason why laws such as red flag laws are implemented in the first place. Interestingly though, the attributions of mental health causing terrorist attacks did not lead to support for the red flag law, even though it could be expected to. A possibility of this could be that while participants support security measures when they attribute mental health as the cause, they may not believe that the red flag law is the appropriate response.

Age did not predict the extent to which one witnessed fifth-wave terrorism. This was expected, as Wave five attacks have occurred more recently. Unlike in Wave four though, the extent to which one witnessed fifth-wave attacks predicted agreement that some factors caused fifth-wave terrorism. It is possible that there is not a distinct fifth wave schema like the Wave four schema, which is why some attributions depended upon the extent to which these attacks were witnessed. Fourth wave attacks have been on the decline, while attacks with fifth-wave characteristics have instead become much more common.

It was found that the more a participant witnessed a fifth wave attack, the more likely they were to believe that those attacks were caused by the perpetrator's mental health and their disagreement with U.S. Policy. Those who witness a fifth wave attack will often hear about it on the news or read about it in an online publication. When reading about the attackers, people may learn about their background, such as who they were and what they did before the attack. Since many fifth wave terrorists are domestic terrorists, people may ask or make note of factors in the attackers' personal life that may have led to this. People may associate some of these factors, and how the news of the attack is reported on, as the attacker perhaps having some sort of mental health

issue is one of the most reported factors during such attacks. "Most news coverage occurred in the wake of mass shootings, and "dangerous people" with SMI (serious mental illness) were more likely than "dangerous weapons" to be mentioned as a cause of gun violence" (p. 406) (McGinty, Webster, Jarlenski, & Barry, 2014). Additionally, people may associate Wave five attacks with far-right groups and their followers, who are likely to disagree with how the government handles many issues, such as immigration.

There was some overlap between Wave four and Wave five regarding which causal factors predicted support for security measures. In both models, the extent to which one thought that life experiences, US policy, and internet radicalization caused the attacks predicted the extent to which one supported security measures. It is unclear which aspects of the life experiences causal factor was most relevant to participants' attributions of terrorist attacks: drug use, upbringing, socioeconomic factors, or criminal history. Regarding the U.S. policy causal factor, it is unclear which specific policy people think the attackers oppose. Possibly, participants who witnessed Wave five attacks to a greater extent thought that far-right extremist groups, who disagree with US policy regarding issues such as immigration and gun control, were associated with fifth-wave attacks and required measures by the government to counteract their behaviors. The common paths from causal factors to support for security measures may be explained by the strong correlation between participants' support for measures to counter Wave four and Wave 5 terrorism.

Interestingly, there was an indirect effect from the witnessing scale to US policy to the support for security measures for the Wave 5 model. A possibility for why this occurred could be because witnesses of fifth wave attacks hearing about far-right extremist groups in the news or through online sources such as MSN or Reddit. Many of these groups were not as prominent during the time in which fourth wave attacks were common. With many of these fifth wave extremist

groups being "newer" than fourth wave groups, it is possible that people want more security measures enacted against them now to combat those attacks.

There were other correlations found in the results in addition to the effects that were discovered in the modeling. For example, age correlated with some of the attributions to fourth and fifth wave terrorism but did not correlate as well with other attributions or with fifth wave witnessing. So, while age may have correlated with some attributions directly, it did not correlate with support for security measures indirectly through the attribution's variables, or the fifth wave witnessing scale. This could mean that age itself could have been a better predictor for the attributions of wave five attacks rather than how attacks were witnessed and then attributed. Additionally, conservativism was found to correspond with both the wave four and wave five security scales in the correlation matrix as well as with several of the attributions for both wave four and five. This is also a possible indicator that, like age, conservativism may be a better predictor of attributions or even direct support for security measures than the indirect effect of witnessing an attack and then developing attributions for those attacks.

It was expected that conservativism would moderate the effect of witnessing an attack on one's beliefs about the causes of the attacks, particularly in the Wave four model. It was also expected that conservativism would moderate the effect of attributions for attacks on support for security measures in that more conservative people who believe in systematic causes of attacks would be more supportive of security measures in the Wave 4, but not in the Wave 5, model. Despite this, conservativism did not moderate these effects, meaning that one's level of conservativism does not significantly moderate the effects of witnessing attacks on forming attributions about them. It is possible that witnessing attacks and forming attributions about them

does not draw as much from conservativism as the model thought. Additionally, contrary to what was predicted, age also did not correlate with conservativism.

While some attributions for terrorist attacks did predict support for security measures in this study, the model fit indices indicated that the model was not an adequate explanation of variations in support for security measures. It is possible that other factors would do a better job of predicting this support. Some factors that could be examined to see if they fit the model better include examining the ideologies of attackers, as well as seeing what people think of terrorists who belong to terrorist groups versus those who act alone as lone wolf terrorists. Differences in these categories could be examined more fully to see if these factors affect support for security measures, especially in the case of whether attackers acted alone or as part of a group, as Phillips (2017) found data indicating that there was in fact a difference between terrorist groups and lone wolves in the lethality of their attacks. It could be worth pursuing to see if the US population's feelings about these differences affect support for security measures.

### LIMITATIONS AND AREAS FOR FUTURE RESEARCH

There were several limitations in this study. Most of the sample chose White/Non-Hispanic as their ethnicity. Additionally, only around 25% of the respondents were in their 20s. This indicates that this sample may not be generalizable to the entire United States population. Using Amazon mTurk, the platform on which this survey was conducted, it is possible to get more specific groups of participants for surveys using the premium qualification feature. However, those qualifications incur an additional charge, and may not be feasible for every researcher to use.

The attacks chosen as examples of fourth wave terrorism and fifth wave terrorism for the pilot study and main survey are very close together chronologically. Fort Hood (2009) and El Paso (2019) are only a decade apart from each other, and San Bernadino and Charleston both happened in 2015. This could have minimized the effect of age on the witnessing variables because many of those who witnessed the fifth wave attacks would have been old enough to also witness some of the fourth wave attacks. Future research in this area should include fourth wave attacks that are more temporally distant from the fifth wave attacks. There may be a greater effect of age on witnessing fourth wave attacks from the early 2000s or 1990s. Alternatively, new studies could also use newer fifth wave attacks in place of the older fifth wave attacks. It is important to note that while this would place the attacks further from the fourth wave, it may also affect the witnessing scales for fifth wave terrorism due to the new nature of these attacks, and many may not be entirely resolved in a short amount of time.

Coding of the pilot study data resulted in separate categories for Radicalization and Internet Radicalization and for Religious Extremism and Religion, even though these constructs overlap. The two radicalization categories were separated because the latter emphasized radicalization through digital means, which may not have been prominent during much of the time period during

which fourth wave attacks were prevalent. Radicalization through the internet, on the other hand, was carried out using means that would have been more common during the era of fifth wave attacks (joining hacker groups, stealing information, reading manifestos of other extremists, etc.).

Regarding the categories, Religious Extremism and Religion, as the former generally referred to fringe or extremist elements of certain religious groups instead of attributing the entire religion, whereas the latter represented respondents who attributed religion, in general, as the cause of terrorist attacks. It is possible that grouping these similar categories together could have altered the results of the research. Additionally, these attributions were not coded to be in line with how they were discussed in the literature review. It was speculated that fourth wave attacks may have been attributed more to interpersonal or intrapersonal causes, while fifth wave attacks may have been attributed to more systemic causes. Coding the attributions along these lines would have provided a better understanding of the effects on and of, those categories of attributions.

Six hypothetical scenarios were selected to represent terrorist attacks, three consistent with a prototypical fourth wave attack (items 1, 4, and 5), and three consistent with a prototypical fifth wave attack (items, 2, 3, and 6). The results of this section of the survey were secondary to the main aims of the research, although they were instrumental in understanding how people define certain aspects of terrorism, particularly gun violence. There were minor differences in responses to these items. Ultimately, most respondents agreed that all six items could have been acts of terrorism, as each item returned at least a rate of around 80% of being a possible terrorist attack. It is possible that different scenarios could have produced different results.

The language in the survey in the security measures section for fourth wave attacks refers to fourth wave groups as "terrorist groups" while the same questions in the fifth wave part of the survey instead asked about "domestic far-right groups". It is possible that using different language

such as calling the far-right groups "far right terrorists or extremists" could have affected responses to the support for security measures items.

It is also possible that the order in which the items were presented may have primed participants to respond more conservatively on the conservativism items. The conservativism questions were asked after participants received details about the six terrorist attacks and after they were asked to categorize attacks as terrorism or not. Research has shown that witnessing terrorist attacks increases conservativism (Hersh, 2013); therefore, exposure to information about attacks may have increased conservative responses.

The model fit indices indicated that the models did adequately explain the data. The results of the research may have been subject to omitted variable bias. For example, in the casual pathway, age is the factor that is used to explain what is affecting witnessing. Other factors that may have been better able to predict witnessing, such as technology use, or schooling, were not included in the model. Additionally, there are likely several other factors that explain how terrorist attacks are attributed that were excluded, such as ideology, access to weapons, and freedom of speech. There could be several other factors that explain how security measures are supported, such as counterterrorism funding, and measures that affect the privacy of American citizens versus measures that do not, that are not present in this research.

New studies on this topic should examine other factors that could influence support for security measures, such as the ideology of the attacker, as well as the number of terrorists who belonged to distinct groups versus those who acted alone in acts of lone wolf terrorism. There is promise in examining the differences in attacks between terrorists belonging to a group and those who acted as lone wolf terrorists. For example, Phillips (2017) found that globally, terrorist attacks committed by terrorist groups tended to be much more deadly than lone wolf actors. However,

when only testing attacks that took place in the United States, it was found that attacks by lone wolves were slightly more deadly on average than by those committed by terrorist groups.

New studies should also use a higher number of participants, if possible. 300 is a good rule of thumb for conducting factor analyses, but numbers such as 500 and 1000 are even better if feasible (VanVoorhis & Morgan, 2007). A larger sample could receive responses from people not represented as well in this study. A larger, more varied sample would be more likely to be more generalizable to the entire United States.

In a new study, the researcher would choose different factors that may indicate support for security measures, such as ideology as well as if the attacker belonged to a terrorist group or acted alone. Additionally, more security measures could be added to the model including support of security measures such as the Department of Homeland Security's Nationwide Suspicious Activity Reporting Initiative, and Secure Flight (US Department of Homeland Security, 22).

#### **IMPLICATIONS**

Policymakers can use the results of research on factors that influence support for security measures in policymaking related to Homeland Security. In particular, findings on attributions such as mental health and US policy, and the extent to which they predicted support for security measures for fifth wave terrorist attacks, may indicate useful information for policymakers. Policymakers may want to find out what percentage of people attribute terrorism to the factors of mental health and US policy. Should those numbers be significant enough, it could perhaps indicate to policymakers that there would be sufficient support for creating new security measures to combat fifth wave terrorism. Specifically, if enough people attribute factors such as mental health and disagreements with US policy as being the cause of fifth wave terrorist attacks, there may be underlying support for security measures that addresses the attributions of mental health and disagreements with US policy.

### **CONCLUSION**

Terrorism is a security concern to the United States and will continue to be so for the foreseeable future. While terrorist attacks have changed over the years, the ways in which people think about them may not have significantly changed. This may indicate that people believe the same kinds of security measures could be useful for mitigating both fourth wave and fifth wave terrorism despite the differences between these waves. Supporting similar sets of security measures between the different waves of terrorism may streamline the process for the government when enacting security measures. It may also hamper things if the security measures used to combat fourth wave terrorism do not adequately address factors unique to fifth wave terrorism. It is unsure if people really believe that the same security measures can be used to combat both waves of terrorist attacks. Further research would be needed to get a clearer picture of what factors do significantly affect people's support for security measures.

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## **APPENDIX**

For the following questions, please indicate the extent to which you agree or disagree with each question. Scores of 1 indicate that you strongly disagree, and scores of 5 indicate that you strongly agree. Scores of 3 indicate that you feel neutral about the question.

On November 5, 2009, Major Nidal Hasan of the U.S. Army fatally shot and killed 13 people and injured more than 30 others in Fort Hood, Texas. Following the shooting, it was discovered that Hasan had ties to radical Islamist groups. It was the deadliest mass shooting to occur on a military base within the United States. The following questions are about the mass shooting:

 I have no memories of this attack during the time it occurred. (If true, survey skips to #6)

(True) (False)

2. I remember several specific details of the attack.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

3. I remember watching news reports about the attack at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

4. I discussed the attack with other people at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

5. I felt upset by the attack immediately after it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

On December 2nd, 2015, married couple Syed Rizwan Farook and Tashfeen Malik targeted a San Bernardino County Department of Public Health training event and Christmas party in San Bernadino, California. In the mass shooting and attempted bombing, 14 people were killed and 22 others injured. Malik was a green card holder from Pakistan, and Farook a U.S. born citizen of Pakistani descent. The following questions are about the mass shooting and attempted bombing:

6. I have no memories of this attack during the time it occurred. (If true, survey skips to #11)

(True) (False)

7. I remember several specific details of the attack.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

8. I remember watching news reports about the attack at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

9. I discussed the attack with other people at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

10. I felt upset by the attack immediately after it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

On April 15th, 2013, brothers Dzhokhar and Tamerlan Tsarnaev detonated two bombs near the finish line at the Boston Marathon. The blasts killed 3 people and injured over 200 more. Three days after the bombing, the FBI identified the brothers and a fugitive hunt ensued. The brothers killed an MIT police officer before engaging in a shootout with police that killed Tamerlan, and Dzhokar was apprehended hours later. During FBI questioning, Dzhokar claimed the brothers had no official ties to overseas terrorist groups, but that the two did learn to build explosives from the online magazine of Al-Qaeda. The following questions are about the marathon bombing.

11. I have no memories of this attack during the time it occurred. (If true, survey skips to #16)

12. I remember several specific details of the attack.

13. I remember watching news reports about the attack at the time it happened.

14. I discussed the attack with other people at the time it happened.

15. I felt upset by the attack immediately after it happened.

The following questions concern your thoughts of the causes of attacks such as the ones that occurred at Fort Hood, San Bernadino California, and the 2013 Boston Marathon:

16. I believe the attackers' being exposed to elements that radicalized them (such as learning to make weapons through a magazine, being exposed to radicalistic ideas through friends/family, or taking inspiration from prior attackers) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

17. I believe that the attackers' mental health played a role in these attacks

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

18. I believe the attackers' life experiences (upbringing, education level, drug/alcohol use, criminal past, etc.) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

19. I believe the attackers' carried out these attacks in response to, or retaliation against, United States Government policy (domestic or foreign).

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

20. I believe the attackers' exposure to radicalistic thought or ideas on the internet (visiting websites that promote radicalistic thought, reading manifestos, joining hacker groups, etc.) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

21. I believe that the attackers' carried out these attacks because of racism or the desire to commit a hate crime.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

22. Besides the reasons already listed, what are some other reasons that these kinds of attacks occur?

Response: \_\_\_\_\_

The following questions concern how you feel about security measures aimed to counteract attacks such as those at Fort Hood, San Bernadino California, and the 2013 Boston Marathon:

23. I support the use of measures such as the no-fly list (people denied from traveling on commercial aircraft because they have been deemed a security risk) to combat potential attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

24. I support the implementation of red flag laws (temporary removal of firearms from individuals a state court believes may present a danger to others or themselves) to combat these kinds of attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

25. I support the implementation of The Patriot Act of 2001 (which expanded law enforcement surveillance capabilities, such as tapping phones) and resulting policy such as

PRISM (collection of personal internet data such as emails, chats, and file transfers) to combat potential attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

26. I support the monitoring of what American citizens post online, such as in social media accounts and private accounts (emails, chatrooms), to help to prevent these kinds of attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

27. I support the government conducting surveillance of online activities by American citizens who have expressed support for terrorist groups.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

28. I support the government conducting police searches of American citizens that have voiced support for terrorist groups.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

29. (Attention Check) The Tsarnaev brothers detonated bombs near the finish line at the marathon of what American city?

(London) (Mexico City) (Boston) (Tokyo)

On June 17th, 2015, Dylann Roof conducted a mass shooting spree at the Emanuel African Methodist Episcopal Church in Charleston, South Carolina, killing 9 victims. This was one of the oldest black churches in the continental United States, and at the time it was the deadliest mass shooting to occur at a place of worship within the United States. Roof was a white supremacist who specifically targeted this church due to its history and status. Roof

published an online manifesto before the shooting, as well as a written one from the time he was in jail after the shooting. The following questions are about the mass shooting.

30. I have no memories of this attack during the time it occurred. (If true, survey skips to #35)

(True) (False)

31. I remember several specific details of the attack.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

32. I remember watching news reports about the attack at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

33. I discussed the attack with other people at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

34. I felt upset by the attack immediately after it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

On October 27th, 2018, Robert Gregory Bowers entered the Tree of Life Synagogue in Pittsburgh, Pennsylvania, killing 11 people and injuring 6 others. It was the deadliest mass shooting ever committed against Jewish people in the United States. Prior to the shooting, Bowers made many social media posts that showed his white supremacist views, as well as many antisemitic posts in the form of rants. The following questions are about the mass shooting.

35. I have no memories of this attack during the time it occurred. (If true, survey skips to #40)

(True) (False)

36. I remember several specific details of the attack.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

37. I remember watching news reports about the attack at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

38. I discussed the attack with other people at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

39. I felt upset by the attack immediately after it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

On August 3rd, 2019, Patrick Crusius walked into a Walmart in El Paso, Texas, and opened fire inside the store. In the aftermath, 23 were killed and another 23 were injured. After being captured by police, Crusius told detectives that he had specifically targeted Mexicans. The Police Chief of El Paso said they were confident that an online manifesto posted to an internet forum was written by Crusius. The manifesto promoted many anti-Hispanic and anti-immigrant ideas. This shooting has been called one of the deadliest attacks on Latinxs in modern American History. The following questions are about the mass shooting:

40. I have no memories of this attack during the time it occurred. (If true, survey skips to #45)

(True) (False)

41. I remember several specific details of the attack.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

42. I remember watching news reports about the attack at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

43. I discussed the attack with other people at the time it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

44. I felt upset by the attack immediately after it happened.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

The following questions concern your thoughts of the causes of attacks, such as the ones that occurred in Charleston, Pittsburgh, and the Walmart in El Paso.

45. I believe the attackers' being exposed to elements that radicalized them (such as learning to make weapons through a magazine, being exposed to radicalistic ideas through friends/family, or taking inspiration from prior attackers) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

46. I believe that the attackers' mental health played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

47. I believe the attackers' life experiences (upbringing, education level, drug/alcohol use, criminal past, etc.) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

48. I believe the attackers' carried out these attacks in response to, or retaliation against, United States Government policy (domestic or foreign).

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

49. I believe the attackers' exposure to radicalistic thought or ideas on the internet (visiting websites that promote radicalistic thought, reading manifestos, joining hacker groups, etc.) played a role in these attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

50. I believe that the attackers' carried out these attacks because of racism or the desire to commit a hate crime.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

51. Besides the reasons already listed, what are some other reasons that these kinds of attacks occur?

The following questions concern how you feel about security measures aimed to counteract attacks such as those at Charleston, Pittsburgh, and the Walmart in El Paso.

52. I support the use of measures such as the no-fly list (people denied from traveling on

commercial aircraft because they have been deemed a security risk) to combat potential attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

53. I support the implementation of red flag laws (temporary removal of firearms from individuals a state court believes may present a danger to others or themselves) to combat these kinds of attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

54. I support the implementation of The Patriot Act of 2001 (which expanded law enforcement surveillance capabilities, such as tapping phones) and resulting policy such as PRISM (collection of personal internet data such as emails, chats, and file transfers) to combat potential attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

55. I support the monitoring of what American citizens post online, such as in social media accounts and private accounts (emails, chatrooms), to help to prevent these kinds of attacks.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

56. I support the government conducting surveillance of online activities by American citizens who have expressed support for domestic far-right groups.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree)

57. I support the government conducting police searches of American citizens that have voiced support for domestic far-right groups.

(Strongly disagree) (Disagree) (Neutral) (Agree) (Strongly agree) 58. (Attention Check) Please select answer choice A (A)(B)(C)(D)Please indicate the extent to which you feel positive or negative towards each issue. Scores of 0 indicate greater negativity, and scores of 100 indicate greater positivity. Scores of 50 indicate that you feel neutral about the issue. 59. Limited government Response:\_\_\_\_ 60. Military and national security Response:\_\_\_\_ 61. Gun ownership Response: \_\_\_\_\_ 62. Traditional values Response:\_\_\_\_ 63. Fiscal responsibility Response:\_\_\_\_

64. Patriotism

Response: \_\_\_\_\_

65. (Attention Check) What was the site of the attack in El Paso, Texas, on August 3rd, 2019?

(An apartment complex) (A Walmart) (Police Station) (Port of entry)

For the following questions, please indicate either "yes" or "no" for your answer.

66. A shooting occurs at a place of worship due to differences in religion. Could this have been an act of terrorism?

(Yes) (No)

67. An attack targeting local minorities occurred at a supermarket. Could this have been an act of terrorism?

(Yes) (No)

- 68. A shooting occurs at a crowded local store. Could this have been an act of terrorism?

  (Yes) (No)
- 69. An attack at a government building takes place to protest government policy. Could this have been an act of terrorism?

(Yes) (No)

- 70. A bomb detonated at a local public school. Could this have been an act of terrorism?

  (Yes) (No)
- 71. A shooting targeting a community event occurs. Could this have been an act of terrorism?

(Yes) (No)

72. Describe the most relevant characteristics of a terrorist attack (e.g., characteristics of
the attacker(s), weapons, target, etc.)?
Response:
73. (Attention Check) Please select answer choice A
(A) (B) (C) (D)
The following five questions are general demographic questions.
74. What is your age?
Response:
75. What is your estimated yearly household income?
Less than \$10,000
\$10,000 to \$14,999
\$15,000 to \$24,999
\$25,000 to \$49,000
\$50,000 to \$99,000
\$100,000 to \$149,000
\$150,000 to \$199,000
\$200,000 or more

76. What is the highest level of education you have attained?

No high school
High School diploma or equivalent
Some college
Bachelor's degree
Graduate degree
77. What is your ethnicity?
Hispanic/Latinx
White, non-Hispanic
Black or African American, non-Hispanic
American Indian and Alaska Native, non-Hispanic
Asian, non-Hispanic
Native Hawaiian and Other Pacific Islander, non-Hispanic
Other, non-Hispanic
Multiracial, non-Hispanic
78. Do you currently describe yourself as male, female or transgender?
Male

Female

Nonbinary

Prefer not to answer

**CURRICULUM VITA** 

Austin Trevor Sullivan was born in El Paso, Texas. The third child of Joseph and Melissa Sullivan,

he graduated from Franklin High School in El Paso in 2015. He graduated from El Paso

Community College in 2017, earning an Associate of Arts degree in Multidisciplinary Studies. He

then graduated from the University of Texas at El Paso with highest honors in 2020, earning a

Bachelor of Arts degree in History with a minor in Secondary Education. Before, and after

completing his degree, Austin worked in education for five years in various schools throughout

the El Paso area as a teacher, substitute teacher, and high impact tutor from 2018 to 2023. He is a

certified Texas Education Agency teacher for social studies grades 7-12. He entered the

Intelligence and National Security Studies master's program at the University of Texas at El Paso

in August 2021.

Contact Information: atsullivan@miners.utep.edu

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