PRIVILEGE AND 9/11: RISK PERCEPTION, TERRORIST ACTS AND THE WHITE MALE EFFECT

by

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ABSTRACT

The World Trade Center and Pentagon terrorist attacks on September 11th, 2001 (9/11) altered the risk perception landscape in the U.S., leading the public to acknowledge the threat of terrorist acts in their daily lives (Roberts & Em 2003). This historic event forced the public to analyze their vulnerability to terrorist acts. Research using social demographic characteristics have revealed how race and gender influence perceived levels of risk. This literature has shown that white males in the US often perceive less risk in society (Finucane et al. 2000; Marshall 2004) than other racial and gendered categories. Flynn, Slovic & Mertz (1994) found that conservative White males of high social economic status perceived less risk, and labeled it the "white male effect". Elsewhere, Slovic claimed that "white males see less risk in the world because they create, manage, control and benefit from many of the major technologies and activities" in the US (2000: 402); their privilege acts to lessen their perceptions of risk. Because the widespread transformation brought by the 9/11 terrorist attacks on risk perception, this thesis retests Slovic's thesis, for it is doubtful if theories developed prior to 9/11 which posit that social and economic privilege lowers risk perceptions still apply in a post 9/11 context. Thus, this thesis reexamines the presence or absence of this "white male effect" and how social demographic variables interact with the characteristics of terrorist acts in a post 9/11 US.

CHAPTER 1

INTRODUCTION

Natural hazards generate risk perceptions within populations exposed to their occurrence. Populations become familiar with natural hazards; how they form, when and where they occur, and who they impact. With the World Trade Center (WTC) attack on September 11th, 2001 (9/11), a new hazard entered the risk perception landscape in the United States (US). This risk landscape is the topic of my study, which focuses on social demographic characteristics and perceptions of risk. This thesis acknowledges that risk perception is a social construction; structural factors such as the social, economic and politics influence levels of concern over certain hazards. This thesis defines risk perception as the level of concern one has regarding a hazard, and it studies the influence that social and institutional factors have in these perceptions. It examines the WTC terrorist attack, researching how it changed risk perceptions of future terrorist attacks in the United States.

Prior to 9/11, Flynn, Slovic & Mertz (1994) advanced the "white male effect" hypothesis, stating that White male conservatives of high social economic status viewed risks in US society with less concern than other population categories. In a study with 1,489 subjects (1275 White and 214 non-White), four categories of respondents based on race and gender (White male, White female, non-White male, and non-White female) were asked to rate 25 hazards such as Medical X-rays, AIDS,

street drugs and other hazards common in the US. The White male category repeatedly gave the lowest risk ratings per hazard, and had the lowest overall group risk rating of these four categories. Further analysis revealed a minority (30%) of the White male group had an undue influence. Examination of this subgroup found them to be more conservative, with higher levels of education and income than the rest of the white male group. This led Flynn et al. (1994) to formulate the "white male effect" generalization, stating that conservative White males of high social economic status perceive less risk in US society due to their advantageous position in society. Slovic claims: "white males see less risk in the world because they create, manage, control and benefit from many of the major technologies and activities" in the US, (2000: 402), so that their privilege acts to lessen their perceptions of risk. The "white male effect" has been replicated in other studies (Finucane et al. 2000; Marshall 2004; Satterfield et al. 2004). Terrorism however, neutralizes the effect of privilege on risk exposure, which is the reason this thesis looks at the presence or absence of the "white male effect" in the new post 9/11 context, examining how social characteristics interact with the characteristics of terrorist acts as a new threat in the US.

Risk Perception

The initial study of risk perception focused little attention on the characteristics of disasters, instead focusing mainly on assumed levels of acceptability to technologies and activities in US society. The discipline of Psychology laid the early

foundation in risk perception research. Starr (1969) examined how individuals made trade-offs between safety and harm based upon assumed economic benefits of a technology. Loss was quantified as the number of accidental deaths attributed to "technological developments in public use" (1969: 1232). Historical national data was examined to gauge accidental deaths from technology use. Starr's work assumed that by looking historically at an activity in society, it was possible to examine the patterns of acceptable risk-benefit tradeoffs and determine the preferred levels of acceptability of the activity. Starr gauged judgments on such activities as air and railroad travel, skiing, smoking as well as others such natural disasters. Starr contributed to the study of risk perception by uncovering factors relevant to understanding perceptions of risks; specifying the level at which the actor has control over the activity or hazard, pointing out the importance of the number of persons exposed to the risk, and the relevance of judging costs and benefits of one risk by comparing it to another. Starr's early work formulated the hypothesis that societies generate a level of risk acceptability based upon economic benefits and loss determined by the number of deaths per activity or hazard.

Subsequent work by researchers known collectively as the Decision Research Group in Oregon (Fischoff et al. 1978) focused on opinions of individuals about characteristics of a hazard that inform risk perceptions. Fischoff et al.(1978) like Starr (1969) generally excluded disasters from their studies, primarily examining judgments of common societal activities such as food coloring, handguns, and railroads; it

included only one hazard (nuclear power). Their work was highly influential in the study of risk perception, laying a framework for using psychometric analyses to understand risk acceptability. Fischoff et al. (1978) formulated the framework of "expressed preferences." It was a method capturing opinions on risk in society by examining how similar respondents rate activities and hazards. These researchers were innovative in their use of direct questioning of respondents on factors influencing risk perceptions. They concluded societies prefer voluntary risks with high levels of danger as opposed to involuntary risks with low levels of dangers. Starr (1969) also found that societal activities fell within two categories, voluntary and involuntary. Starr found that "the public is willing to accept "voluntary" risks roughly 1000 times more than "involuntary" risks" (1969: 1237). For example, in comparing different activities, fatalities from disease and sports were similar, yet sports related deaths were less feared due to the actor deciding to engage in such an activity. This early research also found that "perceived control, familiarity, knowledge and immediacy" were factors that affected risk acceptability according to Fischoff et al. (1978: 149).

Early risk perception research faced several limitations. Research by Starr (1969) looked at historical adoption of technology without an attempt to understand characteristics of a hazard influencing risk perceptions on actual respondents. Fischoff et al.gathered risk judgments of a "league of Women Voters and their spouses" (1978: 134) (76 respondents), rendering difficult any claim that findings could be extrapolated to the larger population. There was a lack of diversity in the populations studied; race,

class and gender differences were ignored. The unit of analysis in early risk perception research was the hazard and not the individual. Early psychometric research focused little on the impact of social demographic characteristics. This research captured responses centered on a hazard and compared it to others, yet did not examine how social demographic characteristics of respondents may influence risk perceptions.

Risk perception studies attempted to counter such limitations through cross-national research using large representative samples of populations. Cross-national work often compared findings to original data from Fischoff et al. (1978). Early work found German and US student respondents to hold similar opinions on fatality rates related to various activities (Winterfeldt, John & Borcherding 1981). A multinational comparative study revealed Poland's similarities to the US on views of risk acceptability, with Poland respondents rating similar risks as having less severity than Norway and Hungary (Goszczynska, Tyszka & Slovic 1991). Cross-national psychometric research revealed nationality differences impact risk perceptions, allowing research to examine the influence of nationality on risk judgments.

Risk perception research soon discovered that cultural differences within a nation may influence risk perceptions. Vlek & Stallen's (1981) work in the Netherlands uncovered group differences within a national population on ratings of 26 hazards. Vlek & Stallens contended that using "group average ratings makes far less sense than is often believed" (1981: 269). The study across nations appeared to overlook the differences within a society that impact risk perceptions. Goszczynska et

al. (1991) found that within Polish industrialized regions, those people in more technical occupations viewed similar risks with less concern than those with a non-technical background. Goszczynska et al. claimed that non-technical groups in Poland "lack this common knowledge, experience, and culture" that may lessen a perception of harm when viewing hazards in society (1991: 192). Those with a technological background occupy this privileged social space that permits familiarity with a technology or hazard that in turn impacts opinions about risk in a society. Goszczynska et al. (1991), similarly to Flynn et al. (1994), stated that privilege may lower risk perceptions of hazards. This knowledge acts to limit fears towards these hazards. Morgall (1993) and Cockburn's (1988) research on the relationship between gender and technology illustrates a strong male effect; the technologically privileged males have lower risk perceptions than females. Gendered inequality allows male to occupy social spaces where familiarity with technology acts to lower risk perceptions.

The work of Goszczynska et al. (1991) predating the claims of Slovic (2000), illustrates how multiple views of risk can exist within a given society and be determined by privilege and technological familiarity. Research has also shown that within nations, subgroups can hold divergent views of risk, pointing to the importance of cultural factors within populations. It is in this context that the aforementioned "white male effect" is made, based upon the privilege white males in the US hold which gives them greater familiarity with hazards others may fear. The presence White males have in many institutions acts to lessen perceptions to risk by exposing them to

technologies that outsiders fear more so do to the infrequent contact they have with these social spaces.

Risk perception research has contributed to the understanding that risk is a social and cultural construction (Covello & Johnson 1987). A possible event or hazard must be understood as generating a response that is indicative of the perceptions of unique populations. Each society:

> has its own distinctive portfolio of risks that are believed to be worthy of concern; each society highlights some risks and downplays others; and each society institutionalizes means for controlling some risks and not others. (Johnson & Covello, viii).

Risk perception is not a wholly objective reality; it is influenced by norms, values, behaviors and institutions of a given society. Cultural influences within a society may generate multiple perceptions of risk.

Relationships between race and ethnicity are evident in risk perception research on heterogeneous populations. An early yet extensive review on the influence of ethnicity on risk perceptions revealed environmental and technological hazards may cause greater concern among minority populations than others in the US (Vaughan & Nordenstam 1991). Johnson (2002) studied Philadelphia residents after gaining information on potential health hazards, and showed that although both groups held similar levels of exposure, non-Whites more so than Whites held greater levels of concern. Cutter (1981) uncovered that non-White (Black) communities and those of low social economic status in Chicago were most apprehensive about pollution in her study on community concern for environmental hazards. Savage (1993) examined

social demographic traits in relation to societal hazards and found Blacks, women and people of low social economic status exhibited greater levels of concern. Savage claimed those who perceived themselves as exposed to greater harm exhibited heightened concern to hazards in the US. Many studies confirm the finding that non-Whites exhibit heightened risk perceptions, however evidence to the contrary have also been reported. Perry, Lindell and Greene uncovered how Mexican Americans defined risk in relation to floods as high "less often than their white counterparts" in their study on ethnicity and warnings (1982; 101). However, prior experience with the Mexico City earthquake of 1985 caused many Hispanics after the 1987 Whittier Narrows earthquake to camp out in parks and abstain from returning to housing structures (Bolin & Stanford 1991) for fear of deportation, unlike other racial and ethnic groups. Cultural factors can influence how racial and ethnic groups view risks. Palmer, Carlstrom & Woodward (2001) discovered that risk perceptions of Blacks under study were impacted by possible outcomes of a hazard (level of harm) unlike other races that based risk judgments more on the statistical probability of harm. Turner & Kiecolt (1984) found Blacks less confident in their ability to mitigate effects of an earthquake than Whites and Mexican Americans. Race and ethnicity seems to influence perceived risk of a hazard, often causing greater concern among minority US populations.

Gender has been found to be a more consistent factor in assessing risk perceptions to hazards and technologies. Early research found the propensity for

women, more than men, to fear environmental hazards (Schmidt & Gifford 1989; Fischer et al. 1991). Ritchey, La Gory & Mullis (1991) found amongst homeless populations that although men are at greater risk for exhibiting physical health symptoms, women reported more symptoms. This gendered difference in self-reported health was confirmed by Ross and Bird (1994); the inequality women face, namely unpaid labor in the home over their life course lowers their perception of health. Davidson & Freudenberg's analysis of gender and risk literature supported a commonly held hypothesis that "women do indeed express higher levels of concern than do men, not because they know less but because they care more" (1996: 328). This may be correlated with the reality that in disasters, women are often charged with the responsibility of caring for household dependents (Enarson & Marrow 1997; Bateman & Edwards 2002). However, males were found to have greater concern over the risks associated with nuclear hazards in the aftermath of Chernobyl nuclear accident (Eiser et al. 1990). In general, literature examining gender's impact on risk perception produces results highlighting the propensity for males to have less concern over hazards and threats than females in US society. There appear to be reoccurring gendered differences influencing risk perceptions, offering validity to the influence of the "white male effect" in the US.

Political ideology, namely conservatism has been found to influence the way in which actors view risks. Analysis by Flynn et al.(1994) discovered that White males with lowered risk perception rating were more conservative in comparison to other

White male respondents. These White males agreed with such conservative sentiment as the use of capital punishment, being against the equal distribution of wealth, agreeing that technological development did not harm the environment, that enough gains have been achieved with equal rights, as well the belief to trust experts representing government and industry. Also, these White males believed society could impose a minimal amount of risk upon the general population if it benefited all. These conservative beliefs reflect a population of White males that see institutions as having the right to make decisions on behalf of populations. It was these characteristics that partly influenced the lowered risk ratings of the white male category.

These values reflect the influence of a culture, seen in the paradigm of cultural theory as formulated by Thompson, Ellis and Wildavsky (1990). Cultural theory claims that there are various biases existing within a society, reflecting preferred values and beliefs that guide behavior. Thompson, Ellis and Wildavsky (1990) expanded upon Douglas' (1982) work and developed five categories (i.e. fatalism, individualism, hierarchy, egalitarianism, and autonomy) representing cultural biases influencing the way actors view risks. The category defined as "hierarchists" believe in a society with highly structured rules and defined roles for all; they accept high levels of risks as long as decisions are made by experts or in other socially approved ways. Although, Thompson et al. (1990) do not contend that conservatism itself acts to lower risk perceptions of hazards, it does support the claim that such values influence

the way an individual views risk and behaves. Conservative ideology appears to orient actors towards risk.

Inequality in the Disaster Context

Disasters are social in nature; they are the outcomes of interaction between hazards and social organizations. Often societal inequality, a form of vulnerability, mediates their effects. Racial and ethnic inequality in the US becomes reproduced in the various stages of a disaster. For example, social stratification causes residential segregation; residents in low-lying regions in flood prone areas are often of low socioeconomic status, unable to afford higher valued real estate (Bolin & Bolton 1986; Barnshaw 2005). In the disaster literature, minorities of low socioeconomic status have been found to face greater obstacles in preparing for natural disasters due to their lack of resources (i.e. economic, social and political) and diminished access to "institutional providers of both information about disaster risks and post impact relief" (Perry & Green, 1982: 324). In examining earthquakes preparation in California, Whites, compared to non-White households, held more resources such as stored food, water, a flashlight and a first aid kit (Turner et al. 1980). Aguirre's (1988) study on a tornado impacting Saragosa, Texas illustrated the lack of a warning system which would serve multi-cultural populations, thus causing deaths of minorities who did not have access to information regarding the hazard. Hispanic populations after the Coalinga earthquake of 1983 "experienced more difficulties in reestablishing permanent housing than Anglo victims" (Bolin & Stanford 1991; 27). Recovery from

Hurricane Andrew was hampered by racial inequality; Black and Hispanic populations received insurance settlements covering less damage than Whites at similar levels of impact (Peacock & Girard 1997). Hispanic populations also suffered comparably more after the Whittier Narrows 1987 and Loma Prieta Earthquake of 1989 due to a lack of affordable housing after these events (Phillips 1993). The social barriers created through race and ethnic inequality exacerbates the impacts of disasters.

Gender inequality has also proven to be an influential factor impacting the experiences of victims. In disasters, women have been found to believe and respond to warnings more than men (Drabek 1969; Turner et al. 1980). Women are also more likely to evacuate in hurricanes (Bateman & Edwards 2002). Gender research in disasters has shown women's greater vulnerability to harm in disasters. Women in economically poorer nations suffer greater losses during disasters. Data shows that women had higher fatality rates in Russian earthquakes (Benin 1981), while women in richer nations such as the US are disproportionately exposed to risk (Enarson & Morrow 1997). Some research also shows this to be the case following the 2004 Indian Ocean tsunami (see Rodriguez et al. 2006). This increased exposure to risk is often explained by the caretaker roles women perform in their daily lives, which continues in the disaster context (Rivers 1982; Enarson & Morrow 1997; Enarson 1998; Bateman & Edwards 2002). In the post disaster context, women continue to experience inequality. For example, the probability of receiving Small Business Administration (SBA) loans to rebuild varies by gender, with male headed households

having a higher success rate than female headed households (Nigg & Tierney 1990). Women often inhabit temporary housing for greater extended periods of time after major disasters in the US, such as in the wake of Hurricane Andrew (Enarson & Morrow 1997). Pre-existing social inequality along gender lines is reproduced in disasters, leaving women as primary caregivers to face a disaster with increased obstacles and fewer resources than males.

A correlation exists amongst populations that perceive greater risk in the US and those populations that experience greater obstacles in the disaster context. Perhaps because they are more disproportionately affected by these events relative to Whites (Rodriguez & Dynes 2005), racial and ethnic minorities as well as women in the US often see more risk in the US than White males; they also encounter more difficulty in managing experiences in the disaster context. It is not surprising then that the white male effect, as advanced by Flynn et al. (1994), has been corroborated by a number of studies, for it implicitly assumes that non-white males in the US will perceive more risk due to their lack of resources. In regards to gender and risk perception, Fothergill hypothesized that women hold heightened perceptions to risk due to their "lack of power and control" in US society (1996: 48). In sum, there is evidence that one's access to resources in a society may act to lower risk perceptions of hazards in the US.

9/11 and Social Demographic Impact

The events surrounding September 11th, 2001 are well known. Planes hijacked by Al- Qaeda Jihads flew into the Pentagon and the Towers of the World Trade Center. The outer three rings (E-C) of the Pentagon were penetrated by Flight 77 at 9:38 am on 9/11 (Titus 2002), causing severe structural collapse inside the building, with a total of 189 lives lost (civilian and military) (Collins, 2002). The North Tower of the WTC was hit at 8:46 a.m, while a second plane hit the South Tower at 9:03 a.m. These terrorist acts on the WTC brought forth its destruction, an integrated set of buildings that housed 50,000 personnel (The 9/11 Commission Report, 2003). The collapse of these buildings took 90 minutes after initial impact, causing the deaths of 2,749. This attack caused not only direct losses in human lives, property loss, public health safety, but also very important financial costs of the emergency response as well the cost of sheltering displaced residents of lower Manhattan in NYC. Additionally, the indirect costs included the loss of jobs, the reduction in capital spending associated with those firms that closed, as well as travel and tourism in the affected area (US General Accounting Office 2004). Economic loss of this event, both direct and indirect has been estimated between $25- $50 billion dollars (US General Accounting Office, 2004).

In addition to structural, economic and social impact, 9/11 generated physiological and mental repercussions on populations residing in NYC. Boscarino, et al. (2004) reported increased use of mental health services as well as medications

among the NYC population after 9/11. They found Blacks and Hispanics less likely to seek mental health services than Whites in NYC who fit the criteria for Post Traumatic Stress Disorder. Boscarino, Adams & Galea measured alcohol consumption rates at 1 and 2 year intervals post 9/11, revealing increased rates of "consumption, binge drinking, and alcohol dependence associated with" exposure to WTC events (2005: 12). Physiological ailments have also become associated with 9/11, such as respiratory symptoms for those living in NYC near the WTC area (Reibman 2005).

The 9/11 disasters had a unique social impact on white males and their families, disproportionately affecting this demographic group. The majority of those who perished in the WTC were Non-Hispanic White males (61%) (Center for Disease Control, 2002). Of those who died at the WTC on 9/11, roughly 66% had attended college or had some post collegiate education (Center for Disease Control 2002). The other racial and gender categories of those who perished at WTC are as follows: Hispanics (male 6.4% and female 2.9%), Asian/Pacific Islanders (male 4.4% and female 1.9%), Black (male 4.9% and female 2.8%), with Other and Unknown (male .3% and female .07%). This event was an anomaly in relation to previous disasters in the US due to the high level of deaths of white males, a sub-group of the population who usually are less victimized by disasters and recover more rapidly from them.

The events of 9/11 generated a unique response on behalf of families who lost individuals in this historic tragedy. The federal government set a precedent with the formation of the September 11th Victim Compensation Fund. The federal government

authorized the creation of a committee to allocate money to the victims of 9/11 attacks in lieu of dropping their right to sue the airlines seeking compensation for their family members' deaths (Feinberg 2005). The justification for such compensation through the 9/11 Fund offered by the US government was one of providing a "unified community response to a unique and unprecedented historical tragedy" (Department of Justice 2004). Neither the 1993 WTC bombing nor the 1994 Oklahoma City bombing generated such an initiative on the part of the federal government. Of the nearly 7 billion dollars (Feinberg 2005) awarded in death claims, the majority of monetary compensation went to family members who lost individuals holding occupations in the banking, insurance, accounting and finance industries (this included all three sites where planes were downed by terrorists) (Department of Justice 2004). These victims on whose behalf death claims were filed comprised the majority of the claims awarded. Examining the social demographic composition of those who perished at the World Trade Center as well as the occupations on whose behalf 9/11 claims were paid, it is obvious that white males of high social economic status and their families were victimized disproportionately. It is thus the case that 9/11 was a unique event; those populations of victims (well-to-do White males) generally face less hardship in disasters suffered great losses. It is thus useful to ask if 9/11 transformed the perception of risk of this group of males.

Impact of Terrorist Acts

Terrorist acts as a type of hazard has entered the risk perception landscape in the US. Whether the US is any safer from terrorist acts than it was on September 10, 2001 is still debatable and not the focus of this research. Instead, this research hypothesizes that 9/11 has altered the risk perception landscape and seeks to examine the possible impact such a historic event has on theories of risk perception focused on the privileged. The events of 9/11 have produced a new perceived threat to populations in the US. Recent studies on risk perceptions in the work place have uncovered that for many US residents, "perceptions of their environments have shifted to accommodate the perceived possibility of a terrorist attack" (Roberts & Em 2003: p.42). What is central is that 9/11 altered at least the US government's perceptions of vulnerability towards terrorist acts, as evidenced by the formation of the Department of Homeland Security (DHS). DHS signifies a huge federal effort at tremendous cost to respond and stop potential terrorist acts. While research on hazards and risk perceptions has historically assessed known hazards in the US, little research has been conducted on the impact terrorist acts have on risk perceptions.

Residents of the US have had few encounters with home based terrorist acts, unlike natural hazards in which more advanced measures have been developed to warn and mitigate exposure to risk. Through science (i.e. meteorology) methods have been developed to better predict and warn populations susceptible to a natural hazard, although as mentioned before inequality along racial, ethnic and gendered lines act as barriers to prevent exposure to harm in the disaster context. Until now, attempts to

extend these systems to terrorist acts have been inconclusive. Thus, in examining warning systems against terrorist acts, it appears that the Homeland Security Advisory System (HSAS) implemented post 9/11 create a lot of ambiguity about the susceptibility of people to terrorist acts. While the HSAS was created to effectively give information on "the risk of terrorist attacks to all levels of government and the American people" (Haddow & Bullock, 2003; 219), the system fails to communicate specific threats to communities in the US. In contrast, an effective warning system should be "clear and understandable; accurate; frequent; credible; specific to the life situation of the intended users" while communicating the possible intensity of impact and actions that will lessen exposure to risk (Aguirre 2004: 104). Through a color coded system (Green, Blue, Yellow, Orange and Red), the severity of risk to terrorist attacks is communicated in a vague manner to the public. This advisory system does not give specifics about the actual type of threat, where it is intended to be carried out, and does not recommend actions to limit exposure to harm (Aguirre 2004). Despite these problems, in the wake of 9/11 this system has been a highly visible measure used by DHS to communicate risk susceptibility of terrorist acts to the general population.

There is a need to examine the impact of terrorist acts on public opinion. A common goal of terrorist acts is to influence a broader population than those who are victims of such disasters (Waugh 2000). Although based solely in northeastern states in the US, 9/11 became viewed as a national tragedy. This unprecedented level of impact has altered the risk perception landscape, creating a high level of awareness in

the U.S. about the threat of terrorist attacks (Roberts & Em 2003). It is evident that on 9/11 privilege failed to act to mitigate the impact of the hazard on white males of high social economic status. It is then possible that such failure impacted their more general perceptions of risk, so that the "white male effect" will not exist in the post 9/11 US society since, with terrorist acts (compare to Starr 1969; Fischoff 1978), it is not usually possible to lower exposure using existing social and economic capital.

The question pursued by this thesis is whether the "white male effect" will continue to be observed in the post 9/11 period. Has the threat of terrorist acts transformed perception of risk among white males? Flynn, et al. (1994) contends that their theory captures a strong component of the US risk landscape. However, it would be beneficial to the risk perception community to understand how current explanations interact with an unprecedented event such as the World Trade Center terrorist attack.

CHAPTER 2

METHODOLOGY

The "white male effect" has yet to be examined in the aftermath of the WTC and Pentagon attacks of 9/11. The interplay of race, gender, class and political ideology offers an opportunity to examine the "white male effect" within the context of factors assessing their susceptibility to future terrorist attacks. Will these social demographic characteristics continue to shield white males against heightened perceptions of risk, namely future terrorist attacks? I hypothesize that social characteristics composing the "white male effect" will fail to confirm previous findings within the risk perception literature, for privilege no longer applies in this new context. The attacks on 9/11 negated the "white male effect" claims that the benefits enjoyed by white males lower their perceptions of risks in US society. 9/11 impacted white males of high social economic status in the US, the most privileged category in society. 9/11 impacted a population that normally experiences less harm from disasters and has more resources to recover when they are the victims. At present, mitigation of this new threat in the US is not enhanced by social, economic or political privilege. The examination of the "white male effect" in a post 9/11 context allows us to test social demographic characteristics associated with privilege in the US and to gauge how these impact risk perceptions.

This analysis of the "white male effect" was completed utilizing secondary data from a telephone poll: CBS News/ *New York Times* Monthly poll #2 of October 2001. The data was obtained from the Inter-university Consortium for Political and Social Research (ICPSR). This poll was part of a monthly survey conducted on the US population designed to solicit public opinion on the presidency and on a range of other political and social issues. Respondents were chosen nationally through a random sampling method.[1] Over 1,024 individuals responded to this poll. The response rate for this poll is unknown. For the purpose of this research, we formulated statistical models to examine the effects of class, race, political ideology and social economic status on risk perceptions. A preliminary analysis was done using the sample weights and it showed no substantive differences in the statistical results or in the overall fit of the models. However, it rendered all variables statistically significant at the .000 level. It was decided not to include the weight function since it obscured the significant differences of the predictors used in the analysis.

In this research, I defined risk perception as the level of concern an individual has in reference to an event, activity or hazard. Risk perception has been shown to be influenced by social location, one's position in society as reflected in class, race,

[1] Sampling: A variation of random-digit dialing using primary sampling units (PSUs) was employed, consisting of blocks of 100 telephone numbers identical through the eighth digit and stratified be geographic region, area code, and size of place. Within households, respondents were selected using a method developed by Leslie Hersh and modified by Charles Backstrom and Gerald Hursh (see Backstrom and Hursh, SURVEY RESEARCH. Evanston, IL: Northwestern University Press, 1963)

gender & political affiliation. Risk perceptions are the outcomes of social constructions. The Royal Society states:

> Risk perception is multidimensional and personalistic…one should accept that assessments of risk are derived from social and institutional assumptions and processes, that is risk is socially constructed (Pidgeon et. al 1992; 3).

The dependent variable is dichotomous, representing a response to the question: *Would you say that you are very concerned about a terrorist attack in the area where you live, or not?* It was scored 1 for *YES,* representing concern for a terrorist attack, while NO responses are coded as 0. 249 respondents answered *YES* and 758 answered *NO,* with 17 responses missing.

Logistic regression is used due to the dependent variable being a dichotomous variable. This analysis assessed the influence of social demographic characteristics on the log of odds of a respondent answering *YES* as opposed to *NO* when asked about their concern over future terrorist attacks in a post 9/11 U.S. The relationship between the independent and dependent variable is not linear, therefore logistic regression is best suited fro this analysis. Logistic regression was done through the "Enter" method for each model formulated in the statistical analysis. Risk perception is operationalized as the log of odds in logistic regression that each independent variable generates, illustrating the impact of each predictor.[2]

[2] Preliminary exploration using cross tabulations was attempted in this research, however results could not be interpreted due to the small number of cases.

A large number of whites responded to this telephone poll. Of the total 1024 respondents, 883 (86%) self identified as White or Caucasian, 75 (7.3%) as Black or African American, 18 (1.7%) as Asian, 39 as (3.8%) Other with 9 (.8%) non identified by race. 438 (42.7%) were males and 586 (57.2%) were females.

Social demographic variables are the primary focus of analysis in this research. Social demographic characteristics of primary interest in the study are: *Male,* coded as 1 and 0 for females. The race variable is *Non-Hispanic Whites,* also coded 1 and 0. *Income* is an ordinal variable, coded as: 1= under $15,000; 2= $15,000-30,000; 3= $30,000-50,000; 4= $50,000-75,000; 5= over $75,000. The *Republican* variable represents political party affiliation and is also dichotomous, with republicans coded as 1 and non-republicans coded as 0.

To attempt to account for extraneous factors, a series of controls were also introduced. One set of controls encompass demographic characteristics such as age and whether respondents were married or had children. A*ge* is ordinal, coded: 1= *18 and 29*; 2= *30 and 44*; 3= *45 and 64*; 4= *Over 64*. The variable *kids* is dichotomous with *YES* responses coded as 1. The variable *marriage* is also coded as 1 for respondents who were married and 0 otherwise (i.e. *widowed, divorced, separated, or never been married).*

Another set of controls was formulated using a scale which measured the effect of 9/11 attacks on respondents. The scale has a Cronbach's Alpha reliability coefficient of .570. It is comprised of four dichotomous variables scored 1 for yes

answers. The first variable is called *canceltrip* which reflects responses to the question *Have you cancelled any trips because of the terrorist attacks on the World Trade Center and the Pentagon?* The second variable *nervous* reflects responses to the question *Since the attacks have you felt edgy?* The third variable asked *Since the terrorist attacks, have you had any trouble sleeping?* The final variable *morefamilytime* measures respondents who spent more time with family since the attack. It asked: *In the weeks since the terrorist attack, have you been spending more time with your family and close friends, less time, or hasn't it had much effect on how much time you're spending with your family and close friends;* those spending more time were coded as 1 and others as 0.

An analysis was first performed by examining social demographic characteristics, the most relevant set of variables to this study. Model I is comprised of the independent variables *Male, Non-Hispanic Whites, Income and Republican.* Model II introduces the demographic and effects controls to assess the continued influence of social demographic characteristics on risk perception. Subsequent models included interaction terms intended to examine the impact of race and explore further implications of the white male effect. Model III includes social demographic, control variables, and an interaction term combining the variables *Non-Hispanic Whites* and *Male*. Model IV includes social demographic, control variables, and a second interaction term combining the variables *Non-Hispanic Whites* and *Income*. Model V includes social demographic, control variables, and a third interaction term combining

the variables *Non-Hispanic Whites* and *Republican*. The final model (Model VI) contains social demographic, control variables and a fourth interaction term combining the variables *Income* and *Republican.*

CHAPTER 3

DATA ANALYSIS AND FINDINGS

Table 3.1: Descriptive Statistics of Sample

Variable	N	Minimum	Maximum	Mean	Percent coded as 1 (dummy)
Age	1021	1.00	4.00	2.6151	
Kids	1020	0.00	1.00		38.2
Marriage	1014	0.00	1.00		58.2
Effects	1012	0.00	4.00	.9526	
Male	1024	0.00	1.00		42.8
Non-Hispanic White	1024	0.00	1.00		83.4
Republican	951	0.00	1.00		35.3
YES response (dependent variable)	1007	0.00	1.00		24.3

Those respondents self identifying as Non-Hispanic White comprise a majority of the sample (83.4%). Males are less than half (42.8 %) of the respondents, and Republicans represent close to a third (35.3%) of the sample population. Nearly 60% were married at the time of this survey, while around 40% had children in their household. The average age of the sample fell between the ages of 30 and 64.

Now turning to the analysis of data, six models were composed to assess the presence of the "white male effect" in a post 9/11 context. The fist model formulated

examined the influence of social demographic variables on levels of concern about future terrorist attacks post 9/11. Control variables were added to the social demographic variables in a second model to find out if the findings did not change with the inclusion of these controls. Interaction terms composed of social demographic characteristics were introduced into the remaining models.

Table 3.2: Additive and Interactive Logistic Regression Models of Concern of Terrorism, by Demographic Controls, Effects of 9/11, Gender Race, Income and Republican party Membership

Model	I	II	III	IV	V	VI
	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Age		.920	.938	.936	.919	.920
Kids(1)		.938	.936	.941	.942	.940
Marriage(1)		.853	.851	.832	.852	.847
Effects of 9/11		1.453*	1.460*	1.456*	1.453*	1.455*
Male(1)	1.573*	1.292**	.826	1.305**	1.305**	1.299**
Non-Hispanic Whites(1)	2.072*	2.039*	1.660**	2.128*	1.941*	2.032
Income	.959	.906**	.905**	.898	.905**	.880**
Republican(1)	1.476*	1.447*	1.448*	1.454*	.943	2.110**
Interaction White/Male(1)			1.735**			
Interaction White/Income				1.006		
Interaction(1) White/ Republican					1.591	
Interaction Income/ Republican						1.115
Constant	.192*		.215*	.232*	.235*	.181*
	--	.241*	--	--	--	--
		--				
-2LL	956.634		906.767	906.680	912.116	912.121
		912.641				
Cox & Snell R Square	.035		.070	.069	.068	.068
		.068				
Nagelkerke R Square	.052		.104	.103	.102	.102
		.101				

* P < .05 ** P < .20

In all of the models, the demographic controls were not statistically significant while the effects of 9/11 scale was positively associated to the dependent variable at the .05 level of significance. As expected, respondents who had experienced more effects from the attacks were more fearful of future terrorist attacks. Both sets of controls did not change the size and effect of the coefficients of the social demographic predictors of direct relevance to this study. The following results are presented in the form of percent log of odds for ease of exposition.

Model I examines the impact of social demographic characteristics on risk perception of future terrorist attacks. This model included those variables advanced by Flynn et al. (1994) in the white male effect hypothesis. As shown, the variable *Male* returned an Exp(B) of 1.573, for a 57.3% log of odds of concern of future terrorist attacks; males in this sample had a 57.3% greater log of odds than females. Additionally, *Non-Hispanic Whites* had an Exp (B) of 2.072, for a 107.2% log of odds. Both of these variables were statistically significant. *Income* was not statistically significant. Lastly, the variable *Republican*, included to represent conservative ideology, was statistically significant with a Exp (B) of 1.476 or a 47.6% log of odds of having concern over future terrorist attacks if compared to Democrats.

These findings confirm the lack of presence of the white male effect in this analysis. Flynn et al. (1994) claim that social demographic traits such as being white, male and conservative is related to lowered risk perceptions of hazards, but this was not found in this study. As shown, whites, males, Republicans had greater concerns

about terrorism. The findings of this research then fail to support the white male effect hypothesis.

Model II included demographic and effect control variables, and continued to confirm the influence of social demographic variables on concern of future terrorist attacks post 9/11. In Model III, an interaction term was included that represented the combined influence of race and gender. While statistically significant, it did not support the white male effect. It had a 74.5% log of odds (Exp(B) 1.745= 74.5%), showing that white males had a much greater concern about terrorist attacks than other racial and gender categories. This is of course again contrary to the predictions of the white male effect hypothesis.

Subsequent models that included other interaction terms continued to cast doubt of elements of the predictions. Thus, the inclusion of an interaction term (Model IV) of race and income (*Interaction Non-Hispanic Whites/Income*) into the analysis had no statistically significant influence on the results. Contrary to the prediction, whites with higher incomes did not have a lower probability of fear of terrorist acts. Model V assesses the effects of the interaction term combining race and political affiliation (*Non-Hispanic Whites* and *Republican)*. Again, contrary to the prediction, this term was not statistically significant. Conservative whites did not have less of a concern for terrorist attacks than other categories of respondents. In Model VI, the inclusion of an interaction term of income and political affiliation also showed no statistically significant influence in this analysis

The white male effect was not found in this current study examining the influence of social demographic variables on risk perception post 9/11. Unlike previous literature in which conservative white males are often found to perceive less risk of hazards, the inverse was the case in this study. It appears that 9/11 was a unique event, altering the risk perception landscape and weakening the impact privilege has on minimizing perceptions of risk.

CHAPTER 4

CONCLUSIONS

This study on the influence of social demographic variables on perception of terrorist threat has revealed the lack of presence of the white male effect in a post 9/11 US. These findings illustrate once again the fact that perceptions of risk are socially constructed. Risk is a socially constructed entity; this research has shown that racial, gender and political advantages failed to lessen concern over terrorism in the post 9/11 context. Privileged white males were unusually victimized in 9/11, so that the insulation from harm this group normally experience was violated, resulting in heightened perceptions of risk of future terrorist acts. This may be the reason in part for the heightened sense of national crisis and the urgency to control terrorism that has engulfed the nation since the 9/11 attacks. It is useful to compare it to the experience of minorities in Katrina. The suffering and loss of the privileged white victims in 9/11 resonate more loudly in the public imagination than the suffering of Blacks in New Orleans. In Katrina, victimization reminds the country what it wishes to forget, namely the effects of the institutionalized racism that is the real cause of the human suffering during this event. In 9/11, the victims become the first heroes in a war against foreign aggression.

There is value in placing these findings in a broader disciplinary context of social constructionism. If risk is not a natural feature of society, if it is socially

produced and transformed, then the new emergent master conception of risk, terrorism, can be understood through the lenses of scholars like Herbert Blumer (1971) who argued that power over the bureaucracy of the state is the main factor determining what social problems claims are taken seriously, what the official response should be, and even how this official approach is implemented. From this perspective then, the findings supporting the White Male Effect could not be other than what this research has shown, open to change as the broader social conditions impacting risk perception changed. It remains to be seen how this new master problem develops in the imagination of the people, and how other public concerns such as global warming impacts it.

Limitations

A limitation of this analysis is one comparable to that of early psychometric work in that the source of data (survey responses) may have limited the opinions of respondents (Earle & Lindell 1984). This analysis has demonstrated a relationship between social demographic characteristics and risk perceptions; however the voice of respondents in a survey may be limited in such a context. With risk perception operationalized as a respondent being placed in a dichotomous category based upon social demographic characteristics, there may be an issue of gaining a fuller scope of how respondents felt vulnerable to further terrorist attacks.

Questions and Topics for Future Research

This current analysis warrants further research into the relationship between social privilege and risk perceptions towards future terrorist attacks in the US. Additional research should focus on social privilege and its relationship to risk perceptions for terrorist acts, especially since this topic is germane in light of the US War on Terrorism. What social demographic characteristics today influence heightened perceptions toward risk? What events since 9/11 have influenced feelings of vulnerability to terrorist attacks? Continued research should also focus on those attributes of a terrorist act that influence risk perceptions. There exists a need to research what traits of a terrorist attack may lead to heightened perceptions toward risk. Would respondents value differently such possible outcomes in an attack such as the loss of life for their selves or family, loss of infrastructure, loss of jobs, or loss of community? The US has had little history with home based terrorist attacks, there is still much to learn regarding social demographic characteristics and their relationship to this new perceived threat.

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