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Sex, Stress, and the Supreme Court: Verbal and Vocalic Analysis of Brett Kavanaugh's Senate Confirmation Hearings to the Supreme Court

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Sex, Stress, and the Supreme Court: Verbal and Vocalic Analysis of Brett Kavanaugh's Senate Confirmation Hearings to the Supreme Court

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Abstract

This study analyzed the relationship between verbal and nonverbal vocalic communication patterns exhibited by Brett Kavanaugh, now a sitting Justice on the U.S. Supreme Court, during his Senate confirmation hearings in 2018. Additionally, the relationship between verbal statement types: attempt to define reality, personal narrative, policy positions, attacks, acclaims, and defenses, and the nonverbal vocalics of sighs, sharp intakes of breath, and sniffs were evaluated together to see which statement types would elicit higher physiological stress responses during both the 16-minute speech given at the end of the Day One hearing and the 45-minute testimony during the sexual assault hearing. Scholarship suggests that verbal and nonverbal communication are both used to create judgements of credibility (Stiff et al., 1989) which was used by the Senate and the American citizens at large during this political scandal. Video content analysis software, ANVIL, was used to code both hearings for Kavanaugh's flow of speech, referred to as utterances, his disruptions in speech flow, referred to as intra-utterance pauses, individual statement end-times, and nonverbal vocalic observations. Three coders read and applied one of the five statement types to each sentence of both hearings. Results from the study showed that time spent in both utterances and in recovery during the intra-utterance pause differed. Statement types provided evidence to support the claim that the narratives of each hearing would differ due to higher levels of stress during the sexual assault hearing. Additionally, the U.S. Senate sexual assault hearing found Kavanaugh evincing a substantially greater amount vocalic stress signals such as sighs, sharp intakes of breath, and sniffs when compared with his first day testimony. Finally, when analyzed together, personal narrative statements were most likely while attack and defense statements were least likely to elicit vocalic

stress responses. This study provides a microanalysis perspective on how verbal and nonverbal vocalics elicit physiological responses during times of heightened stress.

Keywords: Senate hearings; stress; Brett Kavanaugh; content analysis; nonverbal behavior; vocalic utterances; intra-utterance pauses; sighs, sharp breath intakes; sniffs.

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Dedication

This study is wholeheartedly dedicated to my family. I would not be here without the work ethic, confidence in my abilities and intelligence, and love for politics that they instilled in me throughout my life. I will be forever grateful for that.

To the absolute best family in the world,

Patrick, Susan, and Shannon Johnson

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Introduction & Historical Analysis

On July 10, 2018, President Trump nominated Brett Kavanaugh, then a Judge of the United States Court of Appeals for the District of Columbia Circuit, to the Supreme Court of the United States. Kavanaugh's confirmation hearings, administered by the Senate Judiciary Committee, were held between September 4th and 6th of 2018. Though his initial confirmation proceedings were not without the presence of voiced criticisms from opposing Democratic members of Congress, with one exception (Sen. Manchin of West Virginia), in addition to liberal media and interest groups, it was conducted largely as those before him. Procedurally, Kavanaugh had a moment to address the Committee before spending three days answering a plethora of thorough questions from all of the Committee members to understand Kavanaugh's approach to the bench and opinions on policy that he would potentially impact if confirmed.

Shortly after his initial hearings, however, sexual assault allegations came to light on September 14, 2018. This led to additional hearings to address the allegations where both Judge Kavanaugh and Dr. Blasey-Ford, the woman who recounts the alleged sexual assault, testified in front of the Committee. She claimed that Kavanaugh sexually assaulted her at a party while they both were in high school in the early 1980s. Dr. Blasey-Ford and Kavanaugh both testified on September 27th, separately, to provide their sides of the story to the committee. Kavanaugh adamantly denied the allegations.

A potential influence of his confirmation hearings was the significant number of women elected into Congress during the 2018 Midterm elections, just as had happened after the Thomas scandal and confirmation in 1991. This midterm cycles saw 235 women nominees advance to the general election, over double from 2016, which had 120. The results increased the number of women in the House from its previous record of 85 to 102 (90 Democrats, 12 Republicans), with

35 being first-time winners of House seats. In the Senate, 23 women advanced from the primaries, and 5 new women won their general elections (3 Republican, 2 Democrat), with 25 women represented in the chamber's entirety. Additionally, in multiple races, both candidates were female. The House had 52 women in 26 races, and the Senate had 6 races with both female candidates.

This nomination was President Trump's second Supreme Court confirmation during his first term. The first being Neil Gorsuch, who was confirmed on April 7, 2017, 66 days after his nomination, by a 54-45 vote which included support from all Republican and three Democratic senators. Gorsuch's confirmation came after President Barack Obama's attempt to fill the same vacancy within his last year in office when he nominated Judge Merrick Garland, who was more ideologically moderate. However, the Republican-majority Senate refused to proceed with the nomination, arguing that filling the vacancy should be decided by the newly elected president after the 2016 election. The Republican-majority successfully rejected this "critical" confirmation, defined below, as Garland was nominated by a Democratic president to replace one of the most conservative Justices to ever sit on the Court.

The Significance of Supreme Court Confirmations

Though Congress is the main policy-making body, and the president is required to sign those bills into law, the courts also play a role in shaping policy. Landmark decisions like *Munn v Illinois* (1877)*, Near v. Minnesota* (1931), *Brown v. Board of Education of Topeka, Kansas* (1954), *Roe v. Wade* (1973)*,* to name a few, created policy that allowed states to regulate private businesses, prohibited prior restraint, desegregated public schools, and legalized a woman's right to an abortion, respectively.

A single Justice can have a lasting impact on society. Especially in 5-4 decisions when one Justice's ruling ultimately determines the outcome of the case. *Miranda v. Arizona* (1966) had a 5-4 ruling, and had it gone in the other directions, law enforcement would not have to inform an individual of the right to remain silent and of legal council before questioning. A more modern example is *Obergefell v. Hodges* (2015) which made same-sex marriage legal in all 50 states, effecting 13 states. Therefore, while every decision made by a Justice plays a role in shaping policy, the closest cases make it clear that one decision could create significant change within American society.

Presidents, members of Congress, the media, interest groups, and the general public have increasingly realized the weight that the confirmation hearings have to ensure that the nominee not only is of the utmost quality and trusted to uphold the U.S. Constitution but also its interpretation. Now, it is the responsibility of researchers to provide not only analyses of the process itself. Just as researchers aim to understand presidential candidates in terms of narratives, credibility, trustworthiness, and fitness to serve, the same effort must be made for other influential political figures, including those appointed rather than elected and that are capable of producing significant change to the American political system and society as a whole.

The Process

While it is the President's power to nominate who they believe should sit on the Court, it is ultimately up to the Senate Judiciary Committee, followed by the Senate as a whole, to confirm those nominated (U.S. CONST. art 1, § 2, cl. 2). The confirmation process begins within the 22-member Senate Judiciary Committee, where the partisan balance of the full Senate is reflected based on the percentage of the party's representation. Throughout its history, the Judiciary Committee's role has been to determine the "intellectual capacity, competence and

temperament, good moral character," and "the commitment to upholding the Constitution" of the individual nominated (Wermiel, 1993, p. 122). After any hearings, which became the norm during the 1950s (Epstein & Segal, 2005), the Committee casts their votes to confirm or reject the nomination. Before confirmation, at least a simple majority of affirmative votes in the full Senate is required.

Political Pressures on the Process

According to *Federalist No. 76*, written by Alexander Hamilton, the Senate's ability to overrule or reject a nomination should be "a powerful, though, in general, a silent operation." An overruling of a nomination should only be issued to prevent "a spirit of favoritism in the President" and the "appointment of unfit characters" to serve on the highest Court. Just as presidents have used their power to nominate Judges that would promote their administration's agenda, the members of the U.S. Senate have used and expanded their role of confirming the nominee for their own political gain.

Mayhew (1974) argued that Congress's single goal is to get reelected, and one way to increase that chance is by position taking. Over time, members realized that supporting or blocking a president's nominee for the Supreme Court could give them the clout that they need to gain electorate support or resources. As a result, members of the opposition party of the nominating president became more openly opposed to the nominee's confirmation on the grounds of partisan and ideological differences rather than their qualifications (Mayhew, 1974).

Some believe that the rejection of President Reagan's nominee, Robert Bork, in 1987 caused the trend of more contentious confirmations. Bork faced the Senate during a time with a Republican president and Democratically controlled Senate and saw significant pushback from the opposing party for his strongly conservative views. Ruth Bader Ginsburg, just six years later,

faced a Senate-majority of the same party as the nominating president but received little pushback from the opposing party. Often times, divided government is blamed for the rejection of a nominee, but it has been predicted with high likelihood that nominees like RBG would have been confirmed regardless of the party in control (Stone, 2010). Between 1955 and 2010, 80% of the fifteen individuals nominated during divided government were still confirmed to the Supreme Court (Stone, 2010).

In an attempt to understand that lasting impact of the failed Bork nomination, Basinger and Maxwell (2012) suggest that it didn't increase the importance of ideological differences in decision-making but, instead, increased partisanship. That confirmation garnered near perfect party unity with most Republicans voting in favor and an even stronger unity in Democratic opposition (McMahon, 2007). Since the 1970s, Senators at an individual and aggregate level have become more likely to vote cohesively with their own party up to 90% of the time (Basinger & Maxwell, 2012).

Though the majority of confirmations throughout history have taken within 24 days, on average, drawn out hearings from the Senate are not uncommon, with the longest successful confirmation lasting 125 days (Shipan & Shannon, 2003). Research has suggested that delaying the confirmation can increase the likelihood of a rejected confirmation (Cameron & Segal, 2001). The senators opposed to the nominee's confirmation can use the additional time to potentially discover a scandal that could damage the nominee's chances of approval (Cameron & Segal, 2001). Kavanaugh's confirmation, totaling 59 days from the day of nomination to the end of the initial hearings, was not significantly different from many in the past, especially since access to the Internet and increase in media attention has put more pressure on the senators' screening and questioning practices during the process.

However, because of the additional hearings after the scandal broke, the confirmation was stretched to 89 days, but was still successful. Since the 1980s, only two confirmations took more time than Kavanaugh's. The first was Bork's, which took 108 days and ultimately failed, and the second was Clarence Thomas's at 99 days, but resulted in a successful confirmation. Kavanaugh's former boss from Harvard Law school, Elena Kagan, had an 87-day confirmation process, closest in length to his own, but did not require additional investigative hearings. Ginsburg had the shortest confirmation process, lasting just 42 days.

If the ideological distance between the nominating president and Senate increases, so, too, does the duration of the confirmation process (Shipan & Shannon, 2003). The delay of confirmation is even higher for critical nominees, another consequence of highly contested nominations. When the majority of senators have a large ideological distance from the nominee, they will likely delay the confirmation for political gain. From a policy perspective, the senators opposed have no incentive to act in a timely manner because the outcome in the nominee's decisions will likely hurt them and their party. Also, Congress's prolongment can benefit them by hurting the president's agenda and approval ratings (Shipan & Shannon, 2003).

Confirmations deemed "critical" are a significant factor in predicting the success or failure of the nomination (Ruckman, 1993). Though the opposition party in the Senate typically votes to reject the nominee about 36% of the time, critical nominations receive negative votes of at least 40% (Stone, 2010). This suggests that the opposition party is more likely to vote against the confirmation of a critical nominee due to the threat of an ideological shift on the Court that's not in their favor. Justice Antonin Scalia was one of the most conservative Justices to sit on the bench but was unanimously confirmed, after 85 days, to replace the equally conservative Justice

Rehnquist. Clarence Thomas, a critical nominee, on the other hand, was a strong conservative nominated to replace one of the most liberal Justices in history, Thurgood Marshall.

Clarence Thomas

In the case most similar to Judge Kavanaugh, Supreme Court Justice Clarence Thomas faced sexual harassment allegations days before he was set to be confirmed to the Supreme Court in 1991. At his time working with the Equal Employment Opportunity Commission ("EEOC") within the Department of Education, his co-worker, Anita Hill claimed that he sexually harassed her in the workplace. Wermiel (1993, p. 121) explained that "the focus became much more personal" once the allegations came to light. The Senate, especially the Democrats, strayed away from asking expectational questions regarding his "commitment to upholding the Constitution," and were now focused on the personal controversy regarding Anita Hill (Wermiel, 1993, p. 122). Thomas was still confirmed to the Supreme Court with a 52-48 vote, including 11 yes votes from Democratic and 41 from Republican senators.

During the investigative, televised hearings by the Senate Judiciary Committee, Anita Hill sat in front of a panel fully comprised of white men as she told the American public what she experienced. Americans saw that the lack of representation of women within the Senate Judiciary Committee and Congress in general. As a result, the 1992 elections became known as The Year of the Woman because four women were elected to the Senate, a record-breaking number. One of the four women elected to the Senate in the 1992 elections was Dianne Feinstein of California (D) who, as of 2018, is the ranking member of the Senate Judiciary Committee.

The sexual harassment allegations that Clarence Thomas faced turned the issue of sexual harassment in the workplace into a "matter of national concern" for the first time (Badesch, 2018, p. 497). Women watched Hill make history by sharing her experiences that many across

the country could relate to in a time when such allegations were not being taken seriously, especially through legal means. Prior to this event, even though many aspects of sexual harassment were protected under Title VII of the Civil Rights Act of 1964, it was not common for women to file a charge against their employer or other employee that they worked with. Therefore, the media coverage of Anita Hill's experience gave many women the courage to tell their stories.

Though the Thomas confirmation had its similarities with Kavanaugh's in regard to sexual harassment allegations, additional hearings to allow Hill and Ford to testify, and slim margin of approval, the differences that distinguish their allegations are worth noting. The environment, age, and timing of going public were rather different which created different arguments for the nominees.

Anita Hill's claims were based on events that allegedly occurred between 1981 and 1983, while she was in her mid-20s and Thomas in his mid-30s, while he was her superior. She addressed those events before the Senate within a decade of their alleged occurrence. Dr. Blasey-Ford, on the other hand, claims the alleged assault occurred in the summer of 1982, when she was 15 and Kavanaugh was 17. The allegations came 36 years after the event claimed had occurred.

Kavanaugh and the Sexual Assault Hearing

The Kavanaugh confirmation saw an audience of over 20 million people (Richwine, 2018) which highlights how important an event it was within the American political system. People across the globe took sides regarding who they believed to be telling the truth and who was lying, Dr. Blasey-Ford or Judge Kavanaugh. Kavanaugh made it clear that he was not going to withdraw his nomination when he said, "[T]he vile threats of violence against my family will

not drive me out. You may defeat me in the final vote, but you'll never get me to quit. Never." (Judge Kavanaugh Testimony, 2018). His eventual confirmation has remained a prevalent discussion years later, as many still believe him to be a sexual assaulter with a heavy hand in judicial policy.

The current study approached political communication from a new perspective in order to understand the way these political figures formulate and execute their strategic narratives in hopes of obtaining a position of power. The confirmation process, in this case Supreme Court nominees, but any conducted by the Senate Judiciary Committee, are critical to ensuring that individuals meet high qualification and moral standards before obtaining such power. The media also provides a window into the process that has not always been possible. National coverage of these confirmation provides additional checks in power as the general public can apply pressure to the senators that ultimately decide the fate of the nominee.

It is important to not only understand what they say verbally, as that can be prepared and rehearsed in advance, but nonverbally as well because it can provide more insight on the levels of stress one is experiences as they make certain claims. If there is inconsistency in messaging between the verbal and nonverbal messaging, one has to wonder why. Individual perceptions will be made based on those possible inconsistencies which, in turn, can persuade judgements of support or opposition.

The current study sought to provide a different perspective of the hearing by looking at how his narrative was portrayed in the sexual assault hearing compared to his initial confirmation hearings while under heightened levels of stress through verbal content and nonverbal vocalic analysis. More specifically, Chapter 2 analyzed the verbal components, via rhetorical functions of his sentences, of his speeches to understand his verbal approach to each hearing. Each hearing

had a different purpose, with Day One being more of an introduction to who Kavanaugh was as a person and a judge, but the sexual assault hearing was focused on combating the allegations brought against him and restoring his image and reputation. The findings could provide insight to narrative approaches under different forms of stress.

Chapter 3 also aimed at understanding narrative patterns under different stress environments but through the lens of nonverbal vocalic stress signals. Here, sighs, sharp intakes of breath, and sniffs were observed and analyzed to see patterns, if any, that exist between number of occurrences and their timing and the two hearings. Again, their presence and timing could provide a narrative of their own.

Lastly, the verbal content and nonverbal vocalic analyses from the previous chapters were combined and compared in Chapter 4. As both forms of communication were observed by those watching the hearings at home or the senators sitting in front of him, it was important to see how those communications were related. Significant findings could show which rhetorical functions were more or less likely to influence higher rates of nonverbal vocalics across and between the two hearings. If nonverbal stress signals appear more for individual sentence type, it could have influenced people's perceptions of credibility to his verbal narratives while lack of those signals could have strengthened those perceptions in his favor.

Chapter 2 – The Verbal Style

The Narrative Policy Framework

Shanahan et al. (2017, p. 173) stated that "narratives are the lifeblood of politics." The Narrative Policy Framework (NPF; Jones and McBeth, 2010) argued that, in order to fully understand the policy-making process, the role of narratives must first be understood (Shanahan et al., 2017). In other words, the stories told have the power to persuade individuals to support or oppose any given policy. The framework also claimed that narratives both socially construct reality and can be measured empirically, pleasing both post-positivists and positivist-oriented theorists.

Political figures commonly use storytelling, with the use of settings, characters, and plots to persuade the public or other political figures to agree with that narrative. Brett Kavanaugh, during his confirmation process, was no different. The norms, evidence, and conditions are illustrated through the setting of policymaking. All stories, at least the good ones, consist of characters, primarily victims, villains, and heroes. To increase the chance of policy success, politicians must structure the narrative to highlight who is being harmed, who is doing the harming, and how they will be the hero that solves the problem. The plot of the story would provide the sequence of events created by the setting and characters, in hopes that the end result would fall in the politician's favor.

Policy actors have found many ways to influence policy through spoken or written narratives. If the story was eloquently structured, it can transport the individual into the world imagined by the policy actor in attempt to persuade individuals that that would be a better reality. If individuals trust the narrator, whether that be the president, members of Congress, news

pundits, or Supreme Court Justice nominees, they are more likely to support the narrative. Further, characters, like heroes and villains, can amplify the effect of the narrative.

However, individuals are selective regarding the information they allow themselves to process. News sources are capable of framing policy issues in a way that benefits their own narrative. As they frame the issue, they are ultimately priming the audience to view a person, event, or policy in a certain way. If that framing is inconsistent with the narrative portrayed by the politician of interest, the chance of success of the policy solution could decline.

Messaging During a Political Scandal

Political scandals may be defined as "widely publicized events that involve the abuse of power or abuse of the public trust by elected or appointed officials" (Scherer 2008, p. 7). Within the American political system, Rosenson (2014) found that financial scandals were most common within U.S. House ethics investigations. However, she also found that moral scandals, which include sexual misconduct, have become more common. An important aspect of political scandals is their ability to produce a large media presence, and as the bodies that inform the mass public of government activity, such events could greatly influence the electorate's perceptions and the outcome of elections or appointments.

Within the political arena, scandals can arise as a way to defeat an opponent or as a result of government oversight. Using scandals to defeat an opponent is viewed more negatively by the American people, referred to as "mudslinging," while uncovering a scandal and holding the violators responsible makes the American political system appear more efficient and trustworthy (Maier, 2011).

The Kavanaugh confirmation may be considered a political scandal for a number of reasons. First, though the alleged sexual assault occurred decades before he was even a legal

professional, the successful confirmation of Brett Kavanaugh as a Supreme Court Justice, in light of the allegations, would significantly damage the public trust instilled within the Supreme Court. His alleged past behavior towards women could affect Supreme Court decisions that deal with women's rights.

On a more indirect basis, the confirmation of Brett Kavanaugh could be considered a political scandal for the president and the Senate. Because those institutions are tasked with nominating and confirming the nominee, many Americans may view the continuation of Kavanaugh's nomination after the allegations became public as an abuse of power. It also could have been viewed as damage to the public trust as these institutions should only allow the most qualified and deserving individuals to serve on the highest Court.

When dealing with a political scandal, the politician has three options to minimize its influence on the election or confirmation (Smith, Powers, Suarez, 2005). First, they could "aggressively defend themselves" (p. 128). Second, the politician can apologize for the allegations. The first two options require some form of recognition of the allegations, whether the politician takes blame for the action(s) or not. As suggested by Newmark, Vaughan, and Pleites-Hernandez (2019), defenses and apologies can make the politician appear weak and could negatively influence an election. However, the politician could choose to ignore the scandal completely. On the one hand, the scandal could blow over with little to no consequences, but on the other hand, refusal to acknowledge a scandal could create judgements of guilt. All three options create significant disadvantages when it comes to election or appointment support.

Many politicians make strategic use of language to appear credible which, in turn, could gain electoral support. McCroskey and Teven (1999) determined that credibility included factors such as competence, trustworthiness, and goodwill. The perceptions of these factors are

influenced by verbal behavior. Previous studies have suggested that the use of elements of prosody, like loudness, pitch, and speech rate (Rodero, Mas, and Blanco, 2017), reference dependence and loss aversion (Grillo, 2016), and negative situation framing (Koch & Peter, 2017) can influence a politician's credibility.

Theoretical Framework

The Functional Theory of Political Campaign Discourse seeks to understand campaign messages, primarily of presidential candidates (Benoit & Harthcock, 1999; Benoit, 1999). They argue that political communication from a candidate, during a campaign election, could be used strategically to attain their goal of being elected (Benoit & Harthcock, 1999; Benoit, 1999). Studies have analyzed both written and spoken communication during presidential campaigns, and though many of the studies focused on presidential debates (Benoit, 2019; Benoit et al., 2002; Benoit & Harthcock, 1999), this theory has been used to analyze speeches from presidential candidacy announcements (Benoit et al., 2008) and acceptance addresses at nomination conventions (Benoit, Blaney, and Pier, 2000). The theory has also recently broadened to include other elections such as vice presidential, senatorial, gubernatorial, and mayoral (Benoit, 2014; Benoit, Brazeal, & Airne, 2007; Benoit, Henson, & Maltos, 2007).

Though there are significant distinctions between a Supreme Court confirmation and a public election, the two may be seem as procedurally similar, making this theoretical application appropriate. In presidential elections, there is more than one candidate trying to garner the support for the entire nation's electorate. In Supreme Court confirmations, nominees aren't actively campaigning against anyone else, as they were nominated by the sitting president, but a nomination does not guarantee a successful confirmation. For example, since the Nixon administration, five nominations have failed either through rejections, withdrawal, or, as with

President Obama's nomination of Judge Merrick Garland in 2016, the Senate's refusal to take any action regarding the nomination. This means the nominee must still campaign for themselves, with support from the president and the affiliated party, to ensure the nomination doesn't fail or the nominee is replaced. So, although they are campaigning for their own success, it is also for the overall success of the president that nominated them and the other members of that party.

Rhetorical Functions

Functional Theory has consistently looked at three forms of statements when analyzing the verbal content of primarily presidential candidates during debates; acclaims, attacks, and defenses (Benoit, 1999). The theory holds that those statement types are mostly used to reach their desired goal of gaining more electoral support (Benoit & Harthcock, 1999).

Acclaims. Acclaim statements refer to when a candidate's statement had the goal to make themselves appear more desirable. These acclaims can descriptions of policy positions or personal characteristics. Acclaims have consistently been shown to be the most common statement function in presidential debates (Benoit, 1999). Presidential nominees from 1960-1996 were most likely to make these statements 72% of the time (Benoit, 1999). Even in a comparative analysis between presidential debates in the United States and Israel, it showed that significant use of acclaims was also present in elections of top political leaders outside of the United States (Benoit & Sheafer, 2006). This shows that presidential debates have more optimistic tendencies than negative, as acclaims are positive statements about one's self.

Attacks. Attack statements occur when the political figure under consideration mentions a negative act that was due to a specific person or group of people (Pomerantz, 1987). These forms of statements were the second most common statement in the presidential addresses with

27% between the 1960 and 1996 elections (Benoit, 1999). For a statement to be considered an attack, With the Democratic Party as a target for Judge Kavanaugh, due to heavy opposition and multiple attempts to keep him from being confirmed, he may likely make attack statements to make the party's claims appear less credible.

Defenses. Defense statements are made in response to attacks from the opposition. In this case, if Judge Kavanaugh defends his actions, previous statements being used to discredit him by the Democratic Party or any individual person, that would be coded as a defense statement. Benoit's (1999) findings suggest that far fewer defense statements are made, claiming just 1% of the statements made by presidential nominees during presidential addresses. Defense statements are used less often due to the significant costs that come with them. These statements make the politician appear weak, which can cause substantial damage to a political campaign.

Additional Rhetorical Functions

Bucy (2018) developed a codebook to verbally analyze the 2016 Presidential debates between Donald Trump and Hillary Clinton with additions to the Benoit's (1999) scheme. That codebook added *Attempt to Define Reality*, *Policy Advocacy*, and *Personal Narrative* in an expansion of statement functions that add value to the overall narrative by the speaker.

Attempt to define reality. This rhetorical function was defined as "when a candidate describes their view of the "world out there" (Bucy, 2018, p. 1). In the setting of a presidential debate, this form of rhetoric is used to explain their perspective which, in turn, could support the narratives being told.

Policy advocacy. Policy advocacy was defined as "when a candidate advances and advocates for policy positions" (Bucy, 2018, p. 1). Policy advocacy is central to campaigns and is often shaped in ways that would increase support.

Personal narrative. Lastly, personal narrative was defined as "when a candidate recounts a personal story from their past" (Bucy, 2018, p. 1). Personal stories from candidates allows potential voters to know more about the candidates like how they grew up, hardships they have faced and other past experiences.

Kavanaugh's Messaging

Supreme Court nominees have to appear credible to the president and the U.S. Senate, most directly, but they also must appeal to the American public. They begin that process during the interview process between those shortlisted to become the nominee. Appearing credible and trustworthy of the president's agenda and ideology would likely increase their likelihood of being nominated. Then the nominee has to express that credibility to the Senate in hopes of garnering enough confirming votes. At a time with decreased institutional trust within the Executive (42%) and Legislative (40%) branches, those members also must listen to their constituents' preferences before choosing a nominee or approving the nominee, respectively (Gallup, 2018). The Judiciary has consistently shown higher levels of trust (68%), and thus, the other institutions and the nominee have a responsibility to uphold that (Gallup, 2018).

The sexual assault allegations against Brett Kavanaugh, which potentially created a political scandal, brought about many different narratives and messaging approaches. Regardless, the same end goal was present: get confirmed. The scandal threatened the perceptions of Kavanaugh's credibility, trustworthiness, and, more generally, morality. Unlike his first round of hearings, Kavanaugh had to defend his personal reputation rather than his personal and professional qualifications. He was tasked with addressing and then discrediting the opposition's attacks and provide his side of the story.

Given the seriousness of the allegations against Kavanaugh and the unforgotten similarities with the Clarence Thomas confirmation, ignoring the scandal in hopes that it would blow over (Smith, Powers, Suarez, 2005) was presumably not seriously considered. Instead, as Kavanaugh stated in his testimony during his sexual assault hearing, he strongly advocated for an FBI investigation and for an additional hearing as soon as possible. He used that hearing to "aggressively defend" (Smith, Powers, Suarez, 2005, p. 128) himself from the allegations from Dr. Blasey-Ford and the expected attacks from the Democratic members of Congress and liberal interest groups and media.

Research Question

The verbal statements made by Kavanaugh during his initial confirmation hearing and the sexual assault hearing were analyzed to understand his narrative approach and strategy that would help him gain the most support and the role that heightened stress may play. Therefore, the following question was asked:

> RQ_1: How does Kavanaugh's verbal narrative differ from the Day One hearing and the sexual assault hearing?

Methodology

Unit of Analysis

The unit of analysis considered each verbal statement made by Brett Kavanaugh during his testimony in front of the Senate Judiciary Committee on Day One of his confirmation hearing (September 4, 2018) and the testimony given during his sexual assault hearing (September 27, 2018). Statements were defined by punctuation at the end of each sentence. The terms statement and sentence were used interchangeably The Day One clip was 16-minutes long and was used to analyze his baseline verbal patterns in comparison to the sexual assault hearing and was 45-minutes long.

Materials

The full-length video from Day One of Judge Kavanaugh's confirmation hearing and his sexual assault hearing were purchased and downloaded through C-SPAN's online website. Once purchased, the videos were cut to include only Kavanaugh's 16-minute speech at the end of Day One and his roughly 45-minute testimony of the sexual assault hearing. The lengthy questioning between senators and Brett Kavanaugh were edited out and not analyzed. Written transcripts were also obtained and checked for accuracy to provide the correct ending of each sentence through C-SPAN.

Data Collection & Analysis

The frameworks provided by Benoit (1999) and Bucy (2018) were used to code each statement made by Kavanaugh. In other words, Kavanaugh's statements were each coded as one of the five rhetorical functions: attempt to define reality, policy advocacy, attack, defense, acclaim, or personal narrative. However, because Benoit (1999) and Bucy (2018) focused on presidential debates and the current study was focused on the Supreme Court confirmation process, the definitions had to be slightly altered. Table 1. provides the differences from the original definitions to those used here. Additionally, examples of sentences coded as each rhetorical function and the hearing associated with it are included in Table 1.

To understand the narratives of each hearing and the differences between them, ANVIL, a video coding software, was used to accurately obtain the duration of time that Kavanaugh spent on each rhetorical function. Simple tests were run in excel to acquire total duration (in seconds) of time Kavanaugh spent using each statement type. To be able to more accurately compute the two hearings that have significant time differences, the percentage of time allocated to each rhetorical function in both speeches was calculated.

Table 1. *Original and altered definitions used to analyze the rhetorical functions. Examples of each statement type from either the initial confirmation or sexual assault hearing.*

Rhetorical Function	Original Definition	Altered Definition	Statement	Hearing
Attempt to define reality	When a candidate describes their view of the "world out there"	When the nominee describes their view of the "world out there." Or providing descriptive or background details from their perspective.	"Allegations of sexual assault must always be taken seriously, always. Those who make allegations always deserve to be heard. At the same time, the person who was the subject of the allegations also deserves to be heard."	Sexual Assault Hearing
Policy advocacy	When a candidate advances and advocates for policy positions.	When the nominee advances, advocates, or describes their judicial philosophy or approach to decision-making.	"I will do equal right to the poor and to the rich."	Initial Confirmation Hearing
Attack on opponent	When a candidate attacks the opponent by criticizing their policy position(s), policies the opponent agrees with, or personal character.	When a nominee attacks an opponent (those that do not support the nominee) by criticizing their statements, actions, or the impact of either.	"This whole two-week effort has been a calculated and orchestrated political hit, fueled with apparent pent-up anger about President Trump and the 2016 election. Fear that has been unfairly stoked about my judicial record.	Sexual Assault Hearing
Response (defense)	Replies to statements (typically attacks) made by the opponent.	No change.	"I know that any kind of investigation — Senate, FBI, Montgomery County Police — whatever, will clear me."	Sexual Assault Hearing
Acclaim	Talking up one's credentials, experience, resume, negotiating ability.	No change.	"For 12 years, I've been a judge on the U.S. Court of Appeals for the D.C. Circuit. I have written more than 300 opinions and handled more than 2,000 cases. I have given it my all in every case."	Initial Confirmation Hearing
Personal narrative	When a candidate recounts a personal story from their past.	When the nominee recounts a personal story from their past.	"When I was 10, my mom went to law school. And as a lawyer, she worked hard and overcame barriers, including the workplace sexual harassment that so many women faced at that time and still face today."	Sexual Assault Hearing

Additionally, the end times of each statement were noted to track when each statement type occurred throughout each hearing. End times were converted from seconds to minutes to show the number of appearances each rhetorical function had per minute during each hearing. Then, correlation tests were run to understand how each verbal statement interacted with time and see if any patterns existed during and between each hearing. By looking at occurrences per minute, the process was better organized in order to see when Kavanaugh used each rhetorical function over time as well as comparing the functions with one another.

To allow for not only more comparisons, but more in-depth analysis on changes in verbal patterns over time, the 45-minute sexual assault hearing was cut into three 15-minute long sections, referred to as the first, middle, and last 15-minute segments. This allowed behavior to be compared against the 16-minute Day One hearing at three near equal times.

Intercoder Reliability

The Day One hearing and the sexual assault hearing were both coded by the same two graduate student coders. The two coders both had experience coding for the rhetorical functions used in this study. Rhetorical functions that achieved less than 80% agreement were corrected through mediation sessions which were conducted after the Day One hearing and at the half-way point and end of the sexual assault hearing. Mediations consisted of the two coders explaining their reasoning for coding a statement as they did, then the two agreed in one way or the other.

Agreement for the Day One hearing was .66 prior to mediation. Highest agreement was with *personal narrative* statements, .74. Following that, agreement for the remaining rhetorical functions were 62% for *acclaims,* 67% for *policy advocacy,* and 63% for *attempt to define reality* statements. Mediation sessions were used to express the reasoning behind each code, but the lead

coder had the final say. Full agreement was made for the function of each statement during the mediation, as well.

The sexual assault hearing saw about the same level of overall agreement, .64. Broken down, agreement of each rhetorical function was .68 for *attempt to define reality*, .77 for *attack*, .72 for *defense*, .62 for *acclaim*, and .54 for *personal narrative* statements. A mediation was conducted to review definition errors. This hearing was double-coded to show that agreement would be higher after additional clarification of the definitions. The agreement after that was .97.

Findings

Day One Hearing

In Judge Kavanaugh's roughly 16-minute long opening statement on the first day of his initial confirmation hearings, 148 sentences were coded. His introductory and final statement thanking the committee were not coded. As Table 2. shows, Kavanaugh spent over six and a half minutes making *personal narrative* statements ($N = 69$), in other words, nearly half of his entire speech (49.54%). Just over five minutes were dedicated to *attempt to define reality* statements ($N = 57$), or 38.56% of his full speech. *Acclaims* ($N = 12$) made up nearly seven percent (6.77%) of his speech, or less than a minute total, and just over five percent (5.13%) or roughly forty seconds, was used for *policy advocacy* ($N = 10$). Kavanaugh did not make any *attack* or *defense* statements during the initial hearing.

The Day One hearing did not exhibit any detectable verbal patterns across time, as suggested in Table 3. That is to say, no moderate to strong correlations were found to exist between statement type across the duration of the 16-minute speech. Although correlations were unable to detect a relationship, Figure 1a-d. provide a visualization of his verbal statements across time.

Table 2. *The number of sentences, time dedicated to each (in seconds), and percentage of each rhetorical function during the Day One hearing.*

Day One Hearing			
Rhetorical Function	**Number of Statements**	**Time Dedicated to Each (in seconds)**	**Percentage of Speech**
Personal Narrative	69	396.9	49.54
Attempt to Define Reality	57	308.95	38.56
Acclaims	12	54.26	6.77
Policy Positions	10	41.10	5.13
Attacks	0	0	0
Defenses	0	0	0

Table 3. *Correlations between rhetorical function and time and each of the other functions during the Day One hearing.*

	Time (in minutes)	**Attempt to Define Reality**	**Personal Narrative**	**Acclaim**	**Policy Advocacy**
Time (in minutes)	1.0000000	-0.126754	0.100933	0.033441	0.015697
Attempt to Define Reality	-0.126754	1.0000000	-0.8907919	0.01940071	0.37400599
Personal Narrative	0.100933	-0.8907919	1.0000000	-0.0793561	-0.3681809
Acclaim	0.033441	0.01940071	-0.0793561	1.0000000	-0.1115438
Policy Advocacy	0.015697	0.37400599	0.3681809	-0.1115438	1.0000000

Table 3 also shows additional correlation tests that were run to understand the relationships the statement types had with each other. Results showed a strong negative correlation between *attempt to define reality* and *personal narrative* statements (r = -0.891), thus indicated that the two statements are not likely to occur at similar times. To understand why, Figures 1a and b. suggest that *attempt to define reality* statements were consistently used just prior to *personal narrative* statements which could indicate that Kavanaugh provided general statements defining the world as he saw it before telling a personal story from his past.

Policy advocacy statements were found to interact positively with *attempt to define reality* (r = 0.374) but negatively with *personal narrative* statements (r = -0.368), although both correlations were small. As *policy advocacy* was a way for Kavanaugh to express how he would

approach the position of Supreme Court Justice, it was intertwined with other statements that defined his perspective and world view. The negative correlation with *personal narratives* provided a small level of evidence that his personal stories were not likely used to support his policy positions.

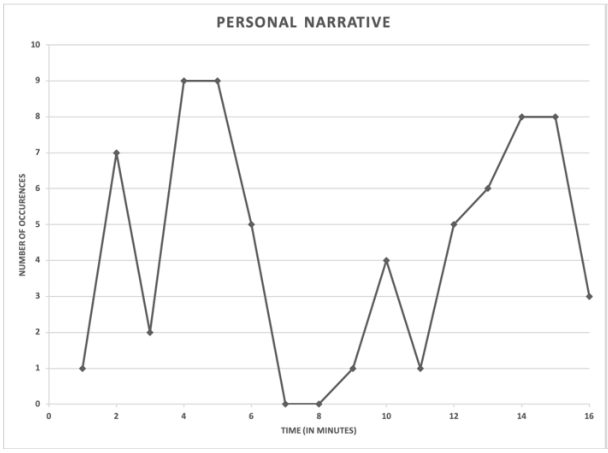

Figure 1a.
Personal narrative statements per minute during the Day One hearing.

Figure 1b.
Attempt to define reality statements per minute during the Day One hearing.

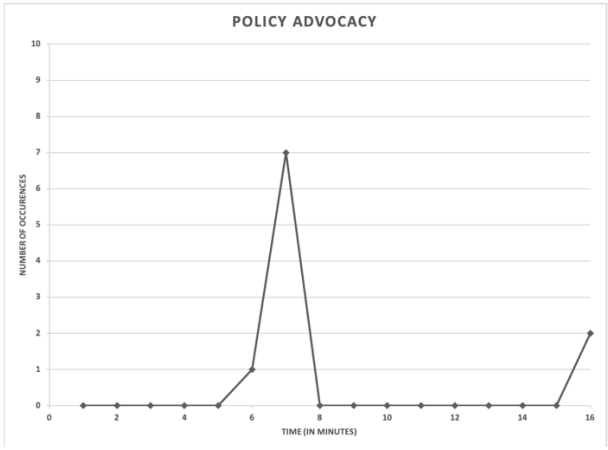

Figure 1c.
Policy advocacy statements per minute during the Day One hearing.

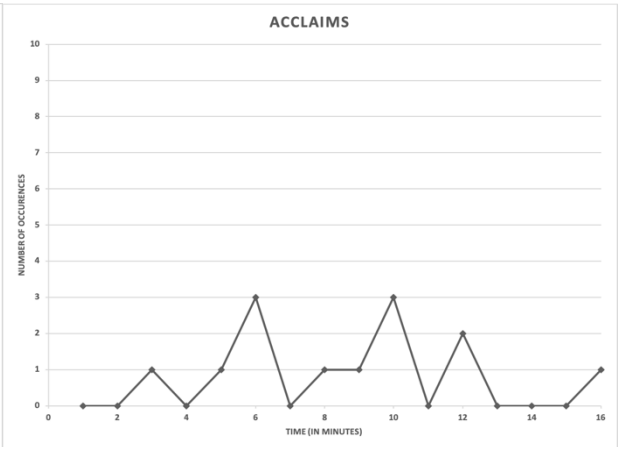

Figure 1d.
Acclaim statements per minute during the Day One hearing.

Sexual Assault Hearing

During the sexual assault hearing, 337 statements were coded. His introductory sentence and a rhetorical question were not coded. As highlighted in Table 4., 33.93% of the statements were determined to be *attempt to define reality* (*N* = 117). Stated differently, this rhetorical function took up slightly over twelve minutes of the 45-minute hearing. *Defense* statements (*N* = 89) were the second-most used rhetorical function. Roughly ten minutes and fifteen seconds (28.90%) were dedicated to responding to the sexual assault allegations and other criticisms. Almost seven minutes (19.63%) were used to make *personal narrative* statements (*N* = 76). Kavanaugh made a total of twenty-eight *attack* statements, taking up over three total minutes (9.12%) of the hearing. *Acclaims* were used the least and only filled 8.42% or almost three minutes of the total speech. No *policy advocacy* statements were made. Simply put, Kavanaugh spent a plurality of his time with attempt to define reality and defense statements.

Table 4. *The number of sentences, time dedicated to each (in seconds), and percentage of each rhetorical function during the sexual assault hearing.*

Sexual Assault Hearing			
Rhetorical Function	**Number of Statements**	**Time Dedicated to Each (in seconds)**	**Percentage of Speech**
Personal Narrative	76	417.56	19.63
Attempt to Define Reality	117	721.66	33.93
Acclaims	27	178.8	8.41
Policy Positions	0	0	0
Attacks	28	194.03	9.12
Defenses	89	614.61	28.90

Several verbal patterns were presented during this hearing to address the sexual assault allegations against Kavanaugh. Correlations between rhetorical functions from the sexual assault hearing were first analyzed across the full 45-minutes (Table 5) but was then broken into three

15-minute long segments (Table 6) to make conclusions at similar times as the Day One hearing (Table 3). The segments were referred to as the first, middle, and last 15-minutes.

Attacks

First, the correlation test between the number of *attack* statement across time (per minute) showed a moderate negative relationship ($r_{\text{attack}} = -0.422$). In other word, as time increased, the number of *attack* statements decreased. Twenty-five of his twenty-eight *attack* statements were made within the first ten minutes (Figure 2d.). It appears that that time was utilized to attack the media and Democratic Senators, mostly those sitting directly in front of him, though names were not mentioned.

Defenses

Defense statements were used randomly but consistently throughout the 45-minute testimony, therefore did not show a significant relationship over time. Although, when the hearing was broken into 15-minute segments, the middle and last 15-minutes showed weak to small negative correlations ($r_{\text{middle 15-minutes}} = -0.23$ and $r_{\text{last 15-minutes}} = -0.39$).

Acclaims

As Figure 2e. shows, *acclaims* were made in clusters, with the first 15 acclaim statements appearing close together right after the concentration of *attacks* made at the beginning of the testimony, between minute nine and seventeen. That explains the strong positive correlation within the first 15-minutes ($r_{\text{first 15-minutes}} = 0.512$) and strong negative correlation within middle 15-minutes ($r_{\text{middle 15-minutes}} = -0.518$). The remaining 13 *acclaims* appeared within minute forty and forty-three ($r_{\text{last 15-minutes}} = 0.477$). This pattern may suggest that, although *attack* and *defense* statements were important to start with, the boasting of personal and occupational qualities were still important towards the beginning and end of the testimony.

Personal Narrative

Personal narrative statements saw only a weak positive correlation over the full 45-minute hearing ($r = 0.25$). The first and middle 15-minutes both showed higher positive correlations at $r = 0.469$ and $r = 0.475$, respectively. However, a sharp decline in frequency occurred in the last 15-minutes to allow for *acclaims* ($r_{\text{last 15-minutes}} = -0.324$).

Attempt to Define Reality

Lastly, *attempt to define reality* statements saw a small negative correlation in the first 15-minutes and a moderate positive correlation in the last 15-minutes ($r_{\text{first 15-minutes}} = -0.34$ and $r_{\text{last 15-minutes}} = 0.42$). Therefore, Kavanaugh exhibited more *attempt to define reality* statements at higher rates at the end of the hearing (Figure 2a.).

Correlations were not run between functions over the three 15-minute segments, only over the full-length hearing. The only moderate correlations involved *attempt to define reality* statements. It was found that *defense* statements had a moderate negative correlation ($r = -0.453$) and *personal narrative* statements had a small negative correlation with the rhetorical function ($r = -0.37$). So, although those statements were most used throughout the hearing, they were not occurring around the same time.

Table 5. *Correlations between each rhetorical function and over time during the sexual assault hearing.*

	Time (in minutes)	Attempt to Define Reality	Personal Narrative	Acclaim	Attack	Defense
Time (in minutes)	1.0000000	-0.1467758	0.2514602	0.1462066	-0.4221204	0.1455255
Attempt to Define Reality	0.1467758	1.0000000	-0.3696584	-0.1905581	-0.1138519	-0.4533108
Personal Narrative	0.2514602	-0.3696584	1.0000000	-0.1205042	-0.2501310	-0.1902720
Acclaim	0.1462066	-0.1905581	-0.1205042	1.0000000	-.02947124	-.20440511
Attack	-0.4221204	-0.1138519	-0.2501310	-0.02947124	1.0000000	0.02918217
Defense	0.1455255	-0.4533108	-0.1902720	-0.20440511	0.02918217	1.0000000

Table 6. *Correlations between rhetorical functions and time during the sexual assault hearing, broken into three 15-minute segments.*

Rhetorical Function	Segment (in 15-minute increments)	Number of Occurrences	Correlation Over Time
Attempt to Define Reality	First	42	-0.33501973
	Middle	45	-0.09597149
	Last	31	0.41954786
Acclaim	First	8	0.51225892
	Middle	7	-0.51835303
	Last	13	0.47739257
Attack	First	25	-0.18022542
	Middle	0	NA
	Last	3	0.15430335
Defense	First	35	0.09144599
	Middle	28	-0.22838926
	Last	26	-0.39026400
Personal Narrative	First	14	0.46930618
	Middle	33	0.47486769
	Last	31	-0.32422904

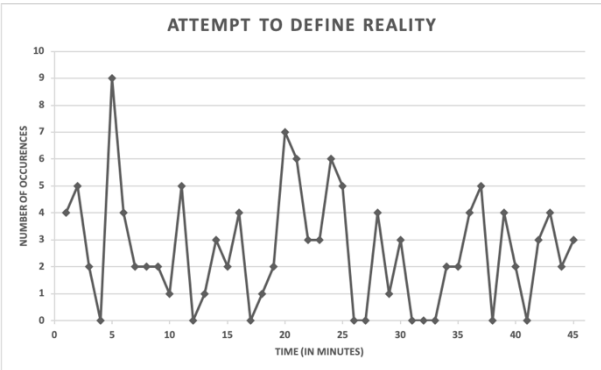

Figure 2a.
Attempt to define reality statements per minute during the sexual assault hearing.

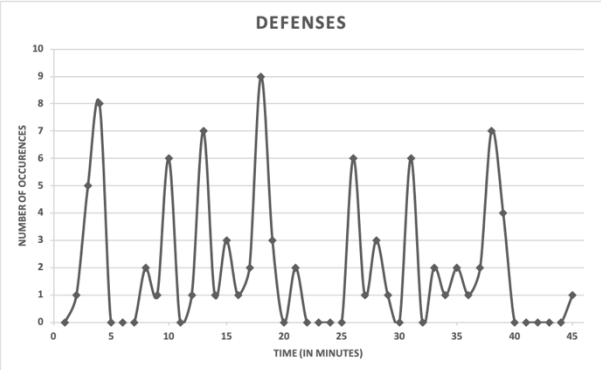

Figure 2b.
Defense statements per minute during the sexual assault hearing.

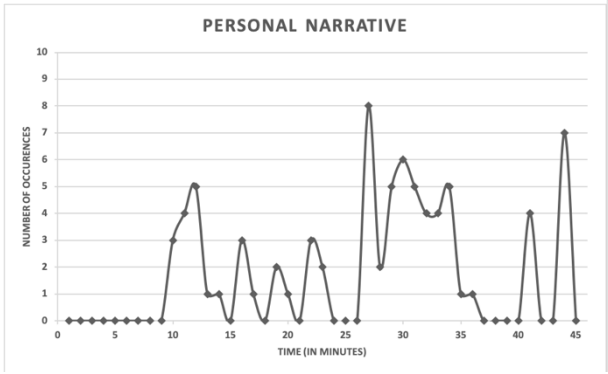

Figure 2c.
Personal narrative statements per minute during the sexual assault hearing.

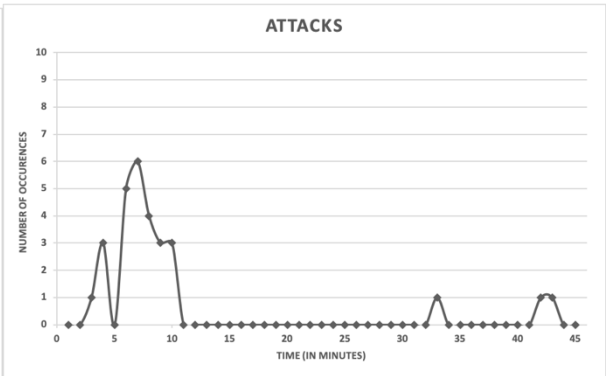

Figure 2d.
Attack statements per minute during the sexual assault hearing.

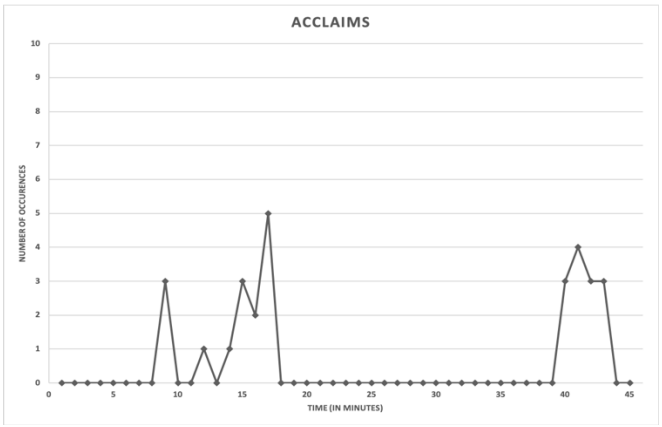

Figure 2e.
Acclaim statements per minute during the sexual assault hearing.

Comparing the Day One Hearing and the Sexual Assault Hearing

The simplest differences to detect from the Day One hearing to the sexual assault hearing were the rhetorical functions that were present in just one of the hearings. While Kavanaugh made ten *policy advocacy* statements during the hearing on Day One but made none during the hearing to address the allegations against Kavanaugh. On the other hand, *attack* and *defense* statements were only present in the sexual assault hearing and not on Day One. That finding alone contributed to the overall narratives within each hearing and how the approach to both were different in at least these ways.

Furthermore, each rhetorical function present in both hearings (*attempt to define reality, acclaims, and personal narrative*) were correlated together to see what relationships, if any, existed between the Day One hearing and the sexual assault hearing in three 15-minute segments. The findings uncovered only weak correlations between *acclaims* from Day One and the middle (r = -0.276) and last (r = 0.203) 15-minute segments of the sexual assault hearing. Weak correlations were also found with *personal narratives*, also between the Day One hearing and the middle (r = 0.276) and last (r = 0.204) 15-minute segments of the sexual assault hearing (t(14)=2.3869, p = 0.03165; t(14)=2.4193, p = 0.02975). *Attempt to define reality* statements between the two hearings have no relationships.

Discussion

The narrative used within the Day One and the sexual assault hearing provided a setting, characters, and a plot as expected with the NPF (Jones and McBeth, 2010). Between the two hearings, the setting described by Kavanaugh was altered significantly. He showed optimism towards the Senate in the initial hearing. After talking about the meetings that he had with 65 senators, he said "[e]very senator is devoted to public service and the public good." (Judge Kavanaugh's Testimony, 2018). However, that perspective changed in the sexual assault hearing when he showed disgust towards the behavior from the Senate when he said, "[y]ou sowed the wind for decades to come. I fear that the whole country will reap the whirlwinds." (Judge Kavanaugh's Testimony, 2018). Kavanaugh's character within his narrative also changed between hearings.

According to the NPF, it appeared that Kavanaugh attempted to portray himself as a hero on Day One, ready to approach the bench with fairness and diligence. He used his time before the committee to provide personal details of his life. In one instance, he told the story about his

mother being a prosecutor and how the lessons she taught him from a young age about judges representing "real people in the real world" made him a better judge (Judge Kavanaugh's Testimony, 2018). However, some of his stories were not relevant to his fitness to be a Justice, some were to express the charity work that he does, going to sports games with his dad, and coaching his daughters' basketball team. The strategy was likely to appear as much as a normal person, not a privileged judge that seeks the power of a Supreme Court Justice.

Policy advocacy was used after that to express the fairness approach he would take to the bench. He said, "…I will keep an open mind in every case. I will do equal right to the poor and to the rich." (Judge Kavanaugh's Testimony, 2018). Kavanaugh was most likely aware that this would be highly partisan battle, and to win it, he would need to make it clear that his decisions would be objective and not based on ideological leaning.

When discussing his track record regarding diversity of his law clerks, he provided many acclaims like, "[a] majority of my law clerks have been women. More than a quarter of my law clerks have been minorities." (Judge Kavanaugh's Testimony, 2018).The Democratic Party platform has been more progressive in making the workforce more representative for women and all races, so these forms of acclaims were most likely directed to the members of the committee that were on the fence about some of his strongly conservative ideology and past judicial decisions.

Conversely, Kavanaugh made himself appear more as a victim in the sexual assault hearing, portrayed as being personally and professionally harmed by the wrongdoings of the senators and the allegations. This hearing provided some possible insight to Kavanaugh's messaging strategy. The first approximately ten minutes of the hearing focused primarily on attacking the liberal media and members of the committee in front of him and the Senate at large.

He referred to his confirmation process as “a national disgrace” and “a circus.” (Judge Kavanaugh’s Testimony, 2018). The strategy behind this narrative could have been to address them at the beginning in order to focus on defending his own reputation afterwards.

Additionally, correlational data showed a decrease in defense statements but an increase in personal narrative statements across time throughout the sexual assault hearing. It appears possible that personal narrative statements in this hearing, as opposed to the Day One hearing, served the purpose of providing indirect support for his defense statements. For example, he provided stories about his use of detailed calendars, like his dad, to support the narrative and defense that he was not at and the party where the alleged sexual assault occurred. So, those combined suggest a more consistent defense throughout the hearing but just more or less direct. Data showed that he made his overall narrative of innocence clear at the beginning by saying, “I denied the allegations immediately, categorically, and unequivocally,” and at the end with the statement, “I am innocent of this charge.” (Judge Kavanaugh’s Testimony, 2018).

Acclaims were also used as indirect defenses. When he spoke about his time working under President George W. Bush and his past confirmation hearings by the same committee, he made clear that he had six FBI background investigations in the past twenty-six years and no evidence of sexual misconduct was ever found. Therefore, he gave many details about his prominent positions, but he also used those as a defense, claiming that if any such behavior had ever occurred, it would have been uncovered long ago.

In sum, the narratives in each hearing differed greatly, appearing to be more strategic and deliberate during the sexual assault hearing. The presence in attack and defense statements only during the sexual assault hearing and appearing more optimistic on Day One highlights the different approached. Kavanaugh could have very well addressed comments made about him

through attack statements or defended himself against the attacks made towards him, but that would not have helped his overall goal of being confirmed. The attacks and defenses are more necessary in the additional hearing also in hopes of still being confirmed. Not addressing them was just not plausible or possible as it was in the first hearing.

Chapter 3 – The Vocalic Style

After the sexual assault allegations against Brett Kavanaugh were made public, American citizens and people around the globe began to take sides on who they believed, Dr. Christine Blasey-Ford or Kavanaugh. Prior to the hearings to address the sexual assault allegations, 32% of adults believed that Blasey-Ford was telling the truth and 26% believed Kavanaugh (Montanaro, 2018). This was potentially troubling for Kavanaugh and his supporters within the Republican Party because a failed nomination could hurt their agenda success and reelection efforts. Therefore, it was very important for Kavanaugh to use the sexual assault hearing as a way of rebuilding his credibility, and more indirectly the credibility of the Republican Party.

After the testimonies, polls suggested that 42% of adults believed Blasey-Ford's allegations, 31% believed Kavanaugh's innocence, and 27% did not know who they believed (Kahn, 2018). So, while more Americans believed the allegations of sexual assault, support for Kavanaugh did increase after the hearing. That could suggest his messaging had some level of effectiveness, though not enough to persuade a plurality of Americans.

Kavanaugh's verbal utterances were analyzed in the previous chapter that showed heightened levels of attack and defense statements during the sexual assault hearing in comparison to the initial confirmation hearing. However, verbal statements are not the most reliable when trying to understand the emotional state of an individual (Ekman & Friesen, 2003). Kavanaugh was able to prepare his statements before both hearings, giving him time to structure his argument and rehearse. However, it is unknown how much time he actually had; although, Kavanaugh stated at the beginning of his sexual assault hearing that he had only written his testimony the night before. Given the fact that he had nearly two weeks to prepare, questions

remain as to why he waited until the night before to write it and why he felt the need to tell that to the committee and the people watching at home?

Another critical, yet often overlooked, aspect of messaging is the speaker's nonverbal behavior. It has been suggested that nonverbal behavior is more difficult to control than verbal statements (Ekman & Friesen, 2003). Put rather informally, talk is cheap. Non-verbal signals, more than spoken word, allow researchers to measure behavior such as intent and stress (Ekman & Friesen, 2003). Humans rely on audible and visual perceptions to analyze the environment around them. It is a helpful tool in communicating with one another, but it can also help us determine when and if a person's nonverbal behavior does not match their verbal communication. The result of the mismatch in behavior and communication can lead to decreased perception of credibility and trustworthiness and persuasion. Therefore, the effective messaging is important to also maintain that credibility and trustworthiness.

In this chapter, a review of the literature will provide information in regard to how nonverbal signals can lead to judgements of deception and how that relates to the present study's analysis of physiological stress responses through nonverbal vocalic behavior. Breathing disturbances like sighs can be a signal for relief of stress as air is exhaled, but others like sniffs and sharp intakes of breath could potentially suggest the opposite as air is being inhaled quickly. The inhalation behaviors could be a sign of a fight or flight response, allowing an individual to prepare for whatever comes next.

Nonverbal Signals of Deception

Deception has been defined as "a deliberate attempt to mislead others" (DePaulo et al., 2003, p. 74). Distinctions have been made so that individuals that make false statements unintentionally are not considered to have been deceitful (Ekman, 1996). Thus, the key

characteristic of deception is the aspect of intentionality. Potential reasoning for deception could include punishment avoidance, privacy, protecting themselves or others, or avoiding embarrassment (Ekman, 1996).

Lying is a complex task that requires more cognitive effort that telling the truth (Zuckerman et al., 1981). When liars are unable to suppress or control their emotions, like anxiety or fear, more deception cues will be present (Ekman & Friesen, 1969). This is referred to as leaking. ten Brink and Porter (2012) analyzed the nonverbal behavior exhibited through the arms, legs, and posture, speech, and emotional facial expressions of individuals that made public statements begging for the safe return of a missing relative with almost half eventually convicted for murdering that relative. This study found that liars had lower speech-rate, failed to falsify sadness by "leaking" non-verbal signals regardless of attempts to control them, and blinked twice as often as truth-tellers.

When trying to determine if an individual is being deceptive, visual cues such as perceived nervousness and object or self-fidgeting were highly correlated with liars while behavior like gestures corresponding with speech were correlated with truth-telling (DePaulo et al., 2003). Hurley and Frank (2011) asked undergraduate participants to partake in a mock crime scenario and found that liars were found to be unable to completely avoid leakage like eyebrow raises and smiles, even when attempting to control for it.

In high-stake situations, both liars and truth-tellers are likely to show non-verbal deception cues as both attempt to appear as credible as possible; regardless of their truth-telling status, people may show deception cues out of fear and anxiety that they will not be believed (Hartwig and Bond, 2014). However, Vrij (1995) found non-verbal indicators of deception during interview situations that asked the target to provide information in their own words but

not during interviews that involved accusations of wrongdoing. Also, in an interview setting, liars were unable to provide as much visual or spatial detail as truth-tellers when asked unanticipated questions but found no difference in detail for questions that were anticipated (Lancaster et al., 2013).

In a study that measured deception during triple interrogations (over 11 days) after participants witnessed a staged event, liars were less likely to make pauses between statements, smiled less, and were more likely to avoided eye-contact (Granhag & Stromwall, 2002). A meta-analysis of deception studies found that liars had a significantly lower speaking time compared to truth-tellers (DePaulo et al., 2003). Further, they provide evidence that there is a small to non-existent relationship between deception and pauses, either silent, filled, or mixed. Word or phrase repetitions were, however, significantly more present during deception than truth-telling. This finding, along with Granhag and Stromwall's (2002) findings, could suggest when liars attempt to appear as credible as truth-tellers, they will rehearse their tale in order to overcorrect for their lies and repeat important words or phrases to avoid providing extra details that could threaten the perceived truthfulness.

Limitations of Deception Measures for Political Speeches

Although deception is difficult to measure when looking at many real-time events and situations, deception studies have been able to use nonverbal behavior to make assumptions about the emotional state in a wider range of settings. DePaulo et al.'s (2003) meta-analysis suggested that liars appeared more stressed or tense compared to truth-tellers. Cues that support this claim are pupil dilation, vocal pitch, vocal tension, fidgeting, and appearing nervous or tense. Blinking showed an insignificant correlation between lying and tension. In the end,

perceived deception on the part of the speaker may be just as damaging to their narrative whether they were actually lying or not.

Much of the research concerning deception was either manufactured in lab settings or provided strong evidence to support their claims such as arrests to accurately determine if an individual was deceiving or not. When analyzing events like political speeches, with little to no proof of fact or fiction, deception would not be an appropriate measure. Russell (2018) instead analyzed how political leaders responded to questions from journalists during joint press conferences. She found that the leaders were more likely to not provide full answers to more aggressive questions. In the present research, opinions could be made regarding the believability of Brett Kavanaugh's innocence or Blasey-Ford's allegations, but at the end of the day, the real truth-teller was and remains unknown.

Physiological Effects of Stress

Everyone experiences stress, but it still remains difficult to define. Stress is an evolutionary tool for humans and other species for the purpose of survival. Romero (2004, p. 250) defined stress as a combination of:

> "(i) the noxious stimuli that an individual exposed to; (ii) the physiological and behavioral coping responses to those stimuli; and (iii) the overstimulation of the coping responses that results in disease."

He explained that stressors are "unpredictable stimulus that causes a stress response" that can cause short term stress diseases like "predator attacks, dominance interactions, and storms" (Romero, 2004, p. 250). When a stressor is indicated, the body's internal balance is disrupted and the physiological responses that can be measured are the body's attempt to retreat back to homeostasis.

Stress can present in multiple dimensions like internal (endogenous) and external (exogenous). Presence or exposure to either form of stress could lead to significant biological and psychological health effects. Generally, stress could lead to increased risk for weakened immune systems (Segerstrom & Miller, 2004), heart disease (Chockalingam et al., 2003), depression (Brown, Harris, and Copeland, 1977), and schizophrenia (Castine, Meaador-Woodruff, & Dalack, 1998). Endogenous stress exposure specifically is more likely to cause stress disorders like post-traumatic stress disorder. Although many effects of stress are negative, it has been suggested that short-term stress could create a temporary boost to the immune system and advance performances as a result of decreased lethargy (Selye, 1956).

Talk is Cheap, Breath is Not

Stress on the body can affect the internal balance which could be detected by an increased heartrate. The average human heartrate typically falls within 60-100 beats per minute, though factors like gender, size, and age can create variation (James, 2015). However, a study that sought to understand the role that speaking has on heartrate variability found increased heartrate variation during those tasks compared to times of rest (Beda et al., 2007). Therefore, even the most basic human functions can potentially cause stress on the body's homeostasis.

Although little research has been done regarding the relationship between heartrate and emotions, James (2015) found strong correlations between speech, emotion, and heartrate. In that study, the researcher had participants speak of past events that elicited the emotion of anger, neutrality, or joy while a recorded utterance played in the background, and found that when asked to speak of events that invoke anger and joy, heartrate variability increased more than events with neutral emotional responses.

While heart rate can provide information of an individual's physiological response to stress, it can be hard to measure through empirical research and without the ability use heart rate monitors. As a way to mitigate that limitation, researchers have recently began analyzing the role that breathing patterns have on heartrate regulation (Del Negro et al., 2018). The function of breath regulation is to stabilize and adapt to the internal and environmental stressors in order to return to homeostasis (Grassmann et al., 2016). In other words, observational research is important to drawing inferences about emotional states and their physiological responses.

It has been suggested that the act of speaking is likely to change respiratory patterns (Hoit & Lohmeier, 2000). Further, Del Negro et al. (2018) found that breathing patterns correlate with the level of arousal, or, in other words, fight or flight responses. In other words, increased arousal was positively correlated with stress when it was measured by rapid breathing (Del Negro et al., 2018). In order for the heartrate to return to self-regulation, deep breaths were found to be useful to dispel stress (Seppälä et al., 2014; Hepburn & McMahon, 2017; Perciavalle et al., 2017).

Also, in a meta-analysis of over 50 articles that evaluated respiration and cognitive load, Grassmann et al. (2016) found that increased cognitive load, or cognitively demanding tasks dealing with memory, attention, reasoning, mental arithmetic, or choice reaction time, caused higher breathing rates, which suggests that breathing patterns are highly sensitive to internal processes.

Pauses. When an individual speaks, pauses are necessary for respiration control, but can also be used strategically to emphasize a point. Igras-Cybulska et al. (2016) categorized three types of acoustic pauses: breath, filled, and silent. Breath pauses are natural pauses used for respiration activity. Filled pauses are likely the result of "uncertainty, hesitations, or short

reflections," and intentional pauses for strategic purposes are silent pauses (Igras-Cybulska et al., 2016, p. 2).

The frequency and duration of pauses are based on a plethora of factors. Especially in regard to silent pauses, the number and duration is largely based on the stylistic preferences of the individual. Studies have shown correlations between gender, age, geographic region, and ethnicity and length of pauses (Kendall, 2009). Additionally, less preparation from the speaker, heightened cognitive load, or decreased confidence in speaking could result in higher breath and filled pauses (Kendall, 2009).

Vocalic Signals of Stress. Vocalic signals, as defined in this study, are the body's physiological response to stressors in the environment through audible breathing regulation attempts. When speakers take a breath, vocalics may be exhibited during those pauses to stabilize their breathing patterns. Unfortunately, much about the relationship between emotion and breathing regulation through sighs, sharp intakes of breaths and sniffs are largely unknown. Sighs and sharp intakes of breath are an attempt to correct breathing patterns and blood flow that has been disrupted due to the stressful environment. Sniffles are one of the nose's responses to changing of temperature of the body, which could be due to increases in internal or environmental stressors.

Sighs. Sighs are large punctuations of breath, typically double the size of normal breaths, and occur roughly every 5 minutes on average (Del Negro et al., 2018). Their function is to re-inflate collapsed alveoli within the lungs, thus, promoting proper lung function (Del Negro et al., 2018). Though sighing is a normal and natural bodily function, they are likely to occur at higher rates for individuals with anxiety, panic, and posttraumatic stress disorders (Tobin et al., 1983; Blechert et al., 2007; Abelson et al., 2008).

Research has found increased rates of sighs during a wide range of emotions, both positive and negative. For instance, Vlemincx et al. (2009) found that sighing was more likely to occur during times of relief than tension when a loud noise was administered as a stressor to participants. Other research has found that negative emotions like stress and worry (Vlemincx et al., 2011) and unpleasantness (Finesinger, 1944), and fear (Blechert et al., 2007) have shown increased levels of sighing behavior. When tasked with picture viewing and script-driven mental imaging, Vlemincz et al. (2015) found that negative and other high arousal emotions like stress and fear caused increased sigh rates and respiratory variability.

Sharp Intakes of Breath. Sharp intakes of breath are much like sighs, but instead of large exhales of breath through the mouth, they are large and quick inhalations of breath through the mouth. This behavior as a potential disruptor of breath patterns has not be studied directly, however, Hudson et al. (2016) found that voluntary sniffs, which they defined as inhalations made through the mouth due to the experimental apparatus used, increased the respiratory load of healthy adults.

Sniffs. Another vocalic disruption to breathing patterns is rhinorrhea, commonly referred to as a runny nose, that often causes people to sniffle. Sniffs consist of audibly breathing in air through the nose to clear the nasal cavity. Most often, people sniffle when they have the cold or the flu, but that's not always the case. Sniffling can be induced when a person cries due to the close proximity of the tear ducts, or due to noxious stimuli such as after eating spicy food (Raphael, Hauptschein-Raphael, & Kaliner, 1987), or is in cold environments as the body attempts to regulate its temperature (Togias et al., 1987).

The detection of odorants is also a primary function of sniffing. It has been suggested that in rats, which consistently and frequently use sniffing for that function, that when they make

vocalizations, they require longer exhalations, and that results in a decrease in sniffing behavior (Sirotin, Costa, & Laplagne, 2014). Therefore, there may be a relationship between sniffing and breathing patterns among humans based on the similar behavior exhibited through the use of vocalizations.

Vocalic Signals of Stress in Justice Kavanaugh's Senate Confirmation Hearings

Throughout the initial confirmation hearing and the sexual assault hearing that followed, Kavanaugh exhibited vocalic stress signals like intra-utterance pauses, sighs, sharp intakes of breath, and sniffs. Such behavior could be used potentially to regulate his breathing and heartrate and return his internal state to homeostasis. While sighs are partly known as a sign of relief (Vlemincx et al., 2009), sharp intakes of breath and sniffs are could reflect the body's fight or flight response during times of stress, although no studies have analyzed those relationships.

Brett Kavanaugh faced mounting expectations during both the initial confirmation hearing and the sexual assault hearing. During the initial confirmation hearing, Kavanaugh was tasked with persuading a majority of the United States Senate that he was fit for the position of Associate Supreme Court Justice through boasting his credentials and personal qualities as well as appearing credible and trustworthy. With the weight of the president and Republican Party's expectations of success on his shoulders, and given the heightened media attention, emotions such as anxiety and stress are natural and predicted.

The expectations of success from the president and the Republican Party were still present during the sexual assault hearing, three weeks after the initial hearings, but now required Kavanaugh to also defend his personal reputation. He did that by denying the allegations brought against him and discrediting the attacks made towards him largely by Democratic members of

Congress and the liberal media. While doing that he also had to continue expressing that he was the best fit to become a Supreme Court Justice.

Research Question

The current study sought to measure the stress exhibited by now Justice Kavanaugh during his sexual assault hearing in comparison to his initial confirmation hearing through the frequency and timing of nonverbal vocalic behavior; sighs, sharp intakes of breath, and sniffs. Stress was measured based on the level (increase or decrease) of nonverbal vocalic stress signals to illustrate how political figures react under various forms of stress, either due to expectations or personal attacks. Therefore, the question of how Kavanaugh's nonverbal vocalic behavior differed between the Day One hearing and the sexual assault hearing was asked.

Methodology

Unit of Analysis

The unit of analysis considers vocalic utterances, "an uninterrupted chain of spoken or written language" (Dent, 2016) exhibited by Brett Kavanaugh during his testimony in front of the Senate Judiciary Committee on Day One of his confirmation hearing (September 4, 2018) and the testimony given during his sexual assault hearing (September 27, 2018). Here, interruptions in the chain of spoken language is the intra-utterance period. While connected with punctuation, this is nonverbal punctuation. The Day One clip is 16-minutes and is used in order to analyze his baseline stress signals in comparison to the sexual assault hearing, which is 45-minutes long.

Materials

The full-length videos from Day One of Judge Kavanaugh's confirmation hearing and his sexual assault hearing were purchased and downloaded through C-SPAN's online website. Once

purchased, the videos were cut to include just Kavanaugh's 16-minute statement at the end of Day One and his roughly 45-minute testimony on September 27, 2018. The Day One video was used to analyze his baseline stress signals.

Data Collection & Analysis

ANVIL, a video content analysis software, was used to code the content of the statements made by Judge Kavanaugh, as well as the non-verbal stress signals. ANVIL allowed the coders to more efficiently and accurately code the starting and ending point of each behavior over the course of the two hearings. If any of the vocalic signals appeared visible but were not audible, although he was placed in close proximity to his microphone, the vocalic behavior was not coded.

Sighs

Sighs were coded when Judge Kavanaugh audibly and sharply exhaled a breath through the mouth or nose. In addition to audibly hearing the exhale, visually, sighs were detected when Kavanaugh pursing of the lips with enough space between them to exhale the air. The chest typically protracts and expands during the exhalation.

Sharp Intakes of Breath

This behavior was coded when Judge Kavanaugh audibly and sharply inhaled a breath through the mouth or nose. The mouth would be slightly open, and the chest would retract as he takes a sharp intake of air.

Sniffs

When Judge Kavanaugh quickly and audibly drew in air through the nose, it was coded as a sniff. Visually, the nose wrinkles, caused by the pulling of skin to the root of the nose,

nostrils widen, and the brows furrow. The movement of the nose upward also causes the upper lip to move upward, as well (Ekman, Friesen, & Hager, 2002).

As in the previous chapter, the sexual assault hearing was cut into three 15-minute segments (first, middle and last) to provide a closer look at the 45-minute long hearing. Additionally, comparisons between the two hearings would be of nearly the same time, making it easier to compare and contrast the behavior within each.

Intercoder Reliability

Two researchers, a graduate and undergraduate student, coded the start and end times of Kavanaugh's utterances and intra-utterance pauses and the nonverbal vocalic stress signals through the ANVIL content coding software. The graduate student had prior experience coding with ANVIL, but not the undergraduate.

Utterances and intra-utterance pauses were coded over both hearings, first. After the first hearings, it was evident that definitions for the two terms needed to be more specific, so a second round of coding occurred. Mediations were conducted for each hearing, the Day One first then the sexual assault hearing. The lead researcher had the ultimate say in any disputes. At times it was hard to determine if the flow of his speech was disrupted enough to consider the occurrence of an intra-utterance pause, which led to significant room for discretion.

The initial agreement between the two coders on Day One was .442 for utterances and .597 for intra-utterances. The gap between the two is due to multiple occasions that one coder would have coded a single utterance that the other coder had coded as more than one. Therefore, agreement was slightly higher in terms of agreeing on the end of an utterance that transitioned into the intra-utterance period. The sexual assault hearing, which was nearly three times longer, but saw roughly the same amount of agreement. Agreement was .429 for utterances and .638 for

intra-utterance pauses. Like Day One, even though a single utterance for one coder was many smaller utterances for the other, more pauses were agreed upon than utterances themselves.

Lastly, the vocalic behaviors; sighs, sharp intakes of breath, and sniffs, were coded for in both hearings. Mediations occurred after each of the hearings were coded. The main issues that causes some weaker agreement were coders missing the behavior prior to the mediation session and the trouble of observing breathing behaviors from a video. The microphone the Kavanaugh used picked up every small sound he made, making his normal breaths seem like more.

Day One saw high agreement with sharp intakes of breath exhibited by Kavanaugh with a score of .870. Sighs were lower at .667, although the observations were only off by one. Mediation allowed for equal agreement. Lastly, sniffs showed the lowest agreement at .333. Again, mediation was used and ultimately agreed upon. Overall agreement was .623. Agreement was higher during the sexual assault hearing, averaging to .702. Sniffs created the highest level of agreement at .909, agreement for sigh observations was .812, and sharp intakes of breath was .385. The low level of disagreement with sharp intakes of breath was due to normal breaths being coded as sharp intakes.

Findings

Day One Hearing

Utterances and Intra-Utterance Pauses

Here, 55 utterances with 54 corresponding intra-utterance pauses were coded (Table 7). A slight increase in both verbal utterance length and in the intra-utterance pause recovery period is seen as a function of time during the first day's testimony, with small-to-medium positive correlation for both ($r_{\text{utterance}} = .37$; $r_{\text{intra-utterance}} = .36$). Figures 3a and 3c shows those relationships.

Vocalics

While both hearings presented all three vocalic behaviors, *sighs, sharp intakes of breath, and sniffs*, their frequency of occurrence varied between each of the hearings. Those patterns are shown graphically in Figure 4a, c, and e. Specifically, as shown in Table 8, during Kavanaugh's first Senate confirmation testimony, he sighed three times, had twenty sharp intakes of breath, and six sniffs during the 16-minute (968.32 second) speech. In other words, during the first day of Senate confirmation hearings, Kavanaugh, on average, displayed a vocalic stress signal just under once a minute (55.2 seconds). More specifically, he sighed about every 5 minutes, took a sharp intake of breath about every minute and a half, and sniffed almost every two minutes and 40 seconds.

Yet, the vocalics were not carefully and evenly placed throughout the hearing. Correlation analysis carried out to understand the patterns and relationship that each nonverbal vocalic behavior as the hearing progressed. All six sniffs that occurred during the Day One hearing were exhibited by Kavanaugh within the last 4 minutes of the presentation, thus providing a strong positive correlation with time ($r_{\text{sniff}} = 0.617$). Sharp intakes of breath were clustered within the first four minutes and last four minutes, with one additional appearance during minute ten. The correlation between this behavior and time was small to medium positive relationship ($r_{\text{sharp intakes of breath}} = 0.388$). The three sighs were placed sporadically throughout the hearing, and because of that, did not show any relationship between those occurrences and time ($r_{\text{sigh}} = -.052$).

Vocalics in Relation to Utterance and Intra-Utterance Pauses

After comparing times of occurrences, it appeared that *sighs* ($N = 3$) only occurred during intra-utterance pauses. *Sharp intakes of breath* ($N = 20$) had a 50% of occurring during utterance

periods or intra-utterance pauses, and *sniffs* ($N = 6$) had only a slightly above average chance of occurring during intra-utterance pauses at 53%.

Sexual Assault Hearing

Utterances and Intra-Utterance Pauses

As shown in Table 7, there were 177 utterances and 176 intra-utterance pauses coded during the hearing. There was a systematic decrease in utterance length during Kavanaugh's sexual assault hearing, with a large and negative relationship between utterance length and time ($r_{\text{utterance}} = -.453$); however, there was no significant change in intra-utterance pause based upon time in the presentation ($r_{\text{intra-utterance}} < .012$) (Figure 3b and 3d).

Vocalics

During his sexual assault hearing, Kavanaugh displayed a vocalic stress signals every 24.9 seconds, on average. Kavanaugh *sighed* thirteen times, had twenty-five *sharp intakes of breath*, and *sniffed* one hundred forty-three times for a total of 181 vocalic stress signals during the 45-minute (2675.17 seconds) speech (Table 8). During the sexual assault hearing, *sniffs* predominated and occurred on average every 31.5 seconds, whereas *sharp intakes of breath* occurred on average once just over every minute and a half (108 seconds), and *sighs* occurred just under every three and a half minutes (207.6 seconds).

During the sexual assault hearing, vocalics began to present at increasing rates about ten minutes into the hearing. *Sniffs* were present, on average, 3.17 times per minute and a strong positive correlation was found for sniffs ($r_{\text{sniff}} = 0.834$). While the correlations *between sharp intakes of breath* and *sighs* were small to none ($r_{\text{sharp intakes of breath}} = 0.153$; $r_{\text{sigh}} = 0.004$) and occurred, on average, .56 and .29 times per minute, respectively. Thus, nonverbal vocalic stress signals increased over the course of his presentation.

Vocalics in Relation to Utterance and Intra-Utterance Pauses

Here, it was found that every *sigh* exhibited by Kavanaugh was during an intra-utterance pause, likely due to requiring more time to make the exhale. Of his twenty-five *sharp intakes of breaths* 61% occurred during intra-utterance pauses, while the remaining 49% occurred at various points while Kavanaugh maintained his verbal flow. Lastly, *sniffs* ($N = 143$) occurred during times of intra-utterances 57% of the time, therefore, the remaining 43% occurred during utterances.

Table 7: *Breakdown of utterances and intra-utterance pauses during the Day One and sexual assault hearing.*

Day One Confirmation Hearing	***Turns***	***Time (seconds)***	***Average***	***Standard Deviation***
Verbal utterances	55	850.32	15.46	11.87
Intra-utterance Pauses	54	118	2.19	1.32
	Total Time:	968.32		
Sexual Assault Hearing	***Turns***	***Time (seconds)***	***Average***	***Standard Deviation***
Verbal utterances	177	2142.49	12.1	12.96
Intra-utterance Pauses	176	532.68	3.02	2.70
	Total Time:	2675.17		

Table 8: *Number of vocalic occurrences during each hearing.*

	Sighs	**Sharp Intakes of Breath**	**Sniffs**	**Total**
Day One Confirmation Hearing	3	20	6	29
Sexual Assault Hearing	13	25	143	181

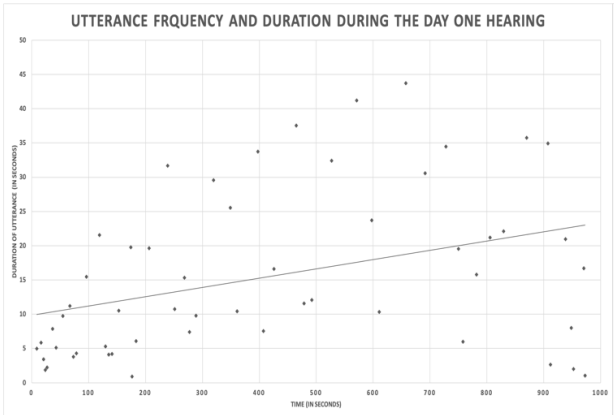

Figure 3a.
End times of each utterance and its duration during the Day One hearing.

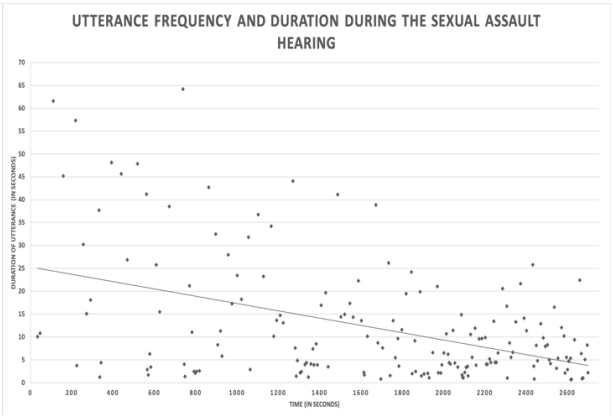

Figure 3b.
End times of each utterance and its duration during the sexual assault hearing.

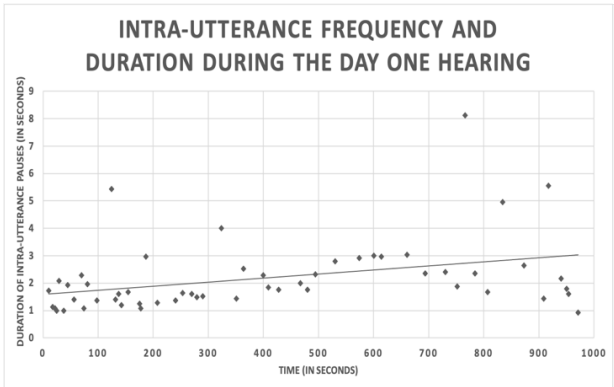

Figure 3c.
End times of each intra-utterance and its duration during the Day One hearing.

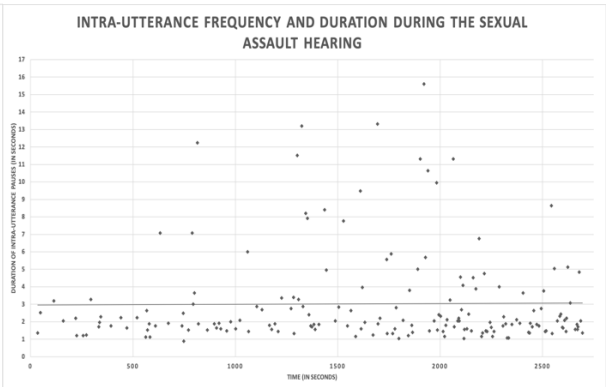

Figure 3d.
End times of each intra-utterance and its duration during the sexual assault hearing.

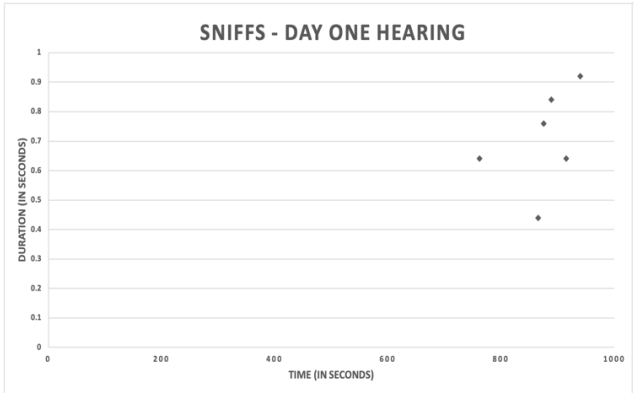

Figure 4a.
Sniff occurrences and duration during the Day One hearing.

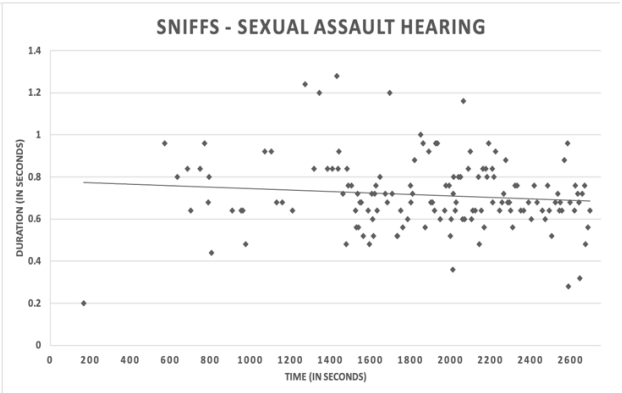

Figure 4b.
Sniff occurrences and duration during the sexual assault hearing.

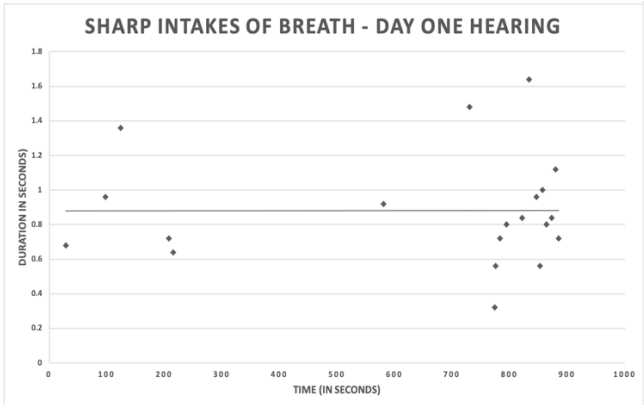

Figure 4c.
Sharp intakes of breath occurrences and duration during the Day One hearing.

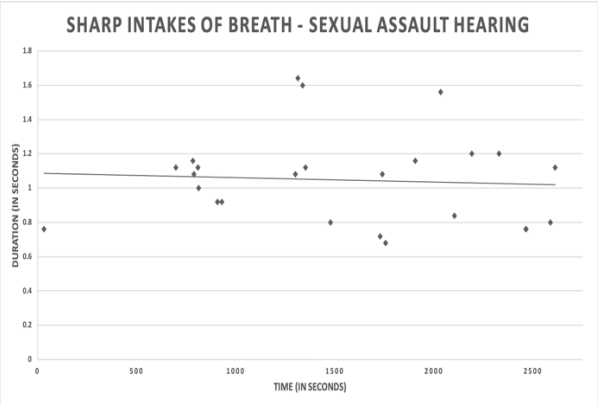

Figure 4d.
Sharp intakes of breath occurrences and duration during the sexual assault hearing.

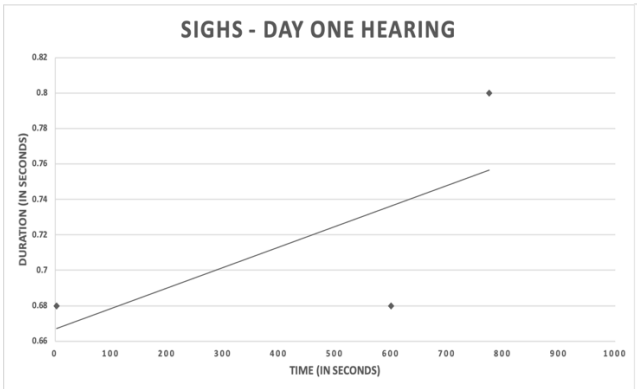

Figure 4e.
Sigh occurrences and duration during the Day One hearing.

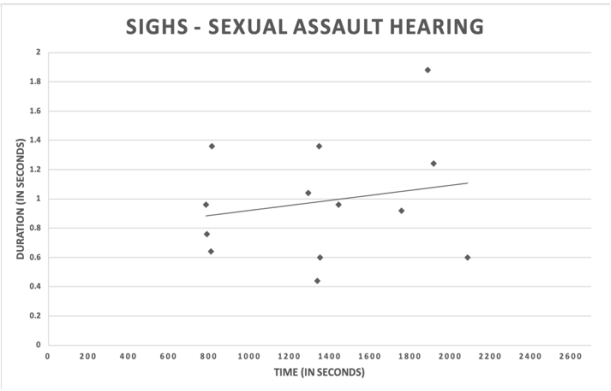

Figure 4f.
Sigh occurrences and duration during the sexual assault hearing

Comparing the Day One and Sexual Assault Hearing

Utterances and Intra-Utterance Pauses

It appeared that Kavanaugh required less time to recover his breathing patterns following his verbal utterances in the initial confirmation hearing. Considering that, Kavanaugh was able to speak for longer period at a time before needing to regain internal homeostasis. The sexual assault hearing, however, saw Kavanaugh requiring more time to recover resulting in shorter speaking times and more time to attempt self-regulation.

Vocalics

When the Day One's correlations between vocalics and time were compared to those during the sexual assault hearing in three 15-minute segments, it tells its own story. First, *sniffs* showed moderate and strong positive correlations over the duration of both hearings, as mentioned earlier. Day One saw a consistent increase, but the sexual assault hearing showed a large increase in occurrences during the first ($r = 0.59$) and middle ($r = 0.76$) 15-minute segments, but the last 15-minutes saw no correlation, a drastic change from just the segment before.

The first 15-minutes of the sexual assault hearing showed a similar pattern in *sharp intake of breath* rates with small-to-medium positive correlations (sexual assault hearing, $r = 0.32$; Day One, $r = 0.39$). After that, in the sexual assault hearing, the vocalic plateaued, seeing no correlations for its remainder.

The Day One hearing saw no correlation with *sighs* most likely due to the low levels of occurrences, but the sexual assault hearing showed a bell-curve of sorts. Within the first 15-minutes there was a medium positive correlation in *sighs* ($r = 0.37$), followed by no correlation in the middle of the hearing ($r = 0.15$), and ended with a moderate negative correlation ($r = 0.43$). However, most of the *sighs* that occurred within the middle 15-minutes of the hearing before tapering off, and after a t-test was conducted, statistical significance was found during that section of the hearing ($t(5)=3.5$, $p =0.025$). Thus, the correlational data did not provide the most accurate relationship between *sighs* during the sexual assault hearing.

It follows then that some vocalics seemed to show consistency across hearings, regardless of the variation of exogenous stress present, to a degree. However, the additional speaking time

made by Kavanaugh allowed for the vocalics to tell more of a story with a beginning, middle, and end.

Vocalics During Utterances and Intra-Utterance Pauses

The sexual assault hearing saw more variation between vocalic behavior and utterance and intra-utterance pause times than the Day One hearing. More specifically, the vocalics *sharp intakes of breath* and *sniffs* during the Day One hearing occurred at chance levels but showed stronger leanings to intra-utterance pauses in the sexual assault hearing. Factors like amount of time Kavanaugh spoke and exogenous stress present could have played a role. However, in both hearings, *sighs* occurred during intra-utterance pauses every single time.

Discussion

Previous work aimed to understand the relationship between nonverbal behavior and deception has largely been manufactured in a lab setting or in situations that were able to prove with evidence that an individual lied (DePaulo et al., 2003; Hurley & Frank, 2011; Hartwig & Bond, 2014; Vrij, 1995; Lancaster et al., 2013; Granhag & Stromwall, 2002). Although many Americans, the U.S. Senate, and others around the globe made their own decision about the truthfulness of the stories presented by Christine Blasey-Ford and Brett Kavanaugh during the sexual assault hearings, it will remain a he said/she said situation without hard evidence. However, the lack of hard proof did not stop this event from being framed as a competition with one winner.

That being said, even the perception of deception can cause the same amount of damage as having significant proof that lying occurred. Nonverbal behavior sending signals that correlate with deception, such as stress, nervousness, speaking time, respiration rate (Del Negro et al., 2018), and duration and frequency of pauses (Igras-Cybulska et al., 2016) can cause the audience

to feel unsure or suspicious of an individual's intent and emotional state. Breath patterns have also been shown to provide insight on the emotional state of a speaker. In an attempt to regulate one's heartrate, sighs, sharp intakes of breath, and sniffs have recently begun to be analyzed, and research is beginning to suggest they may play a role in revealing emotions like stress (Vlemincz et al., 2015; Hudson et al., 2016; Sirotin, Costa, & Laplagne, 2014).

Length of time spent in the verbal utterance, as well as in oxygen recovery during the intra-utterance pause, may reflect the initial higher levels of stress by being in front of a powerful deliberative body such as the U.S. Senate Judiciary Committee, and then diminish throughout the course of a presentation, or conversely escalate throughout a presentation. Judge Kavanaugh exhibited, on average, longer speaking times with shorter pauses during Day One of his confirmation hearing than during his sexual assault hearing. During his first hearing, he began with numerous short utterances then gradually made longer utterances during his 16-minute monologue. Potential reasons for that could be to settle nerves or to get into the rhythm of a rehearsed speech.

For the sexual assault hearing, however, Kavanaugh started off with longer utterances, and as time passed, they became much shorter, possibly due to already have endured multiple days of hearings in previous weeks, he may have been more comfortable sitting in front of the Senate Judiciary Committee. However, he had much less time to prepare for the sexual assault hearing, and when addressing a highly stressful event such as sexual assault allegations, which resulted in the need to take longer pauses between utterances in order to recover from the content spoken.

A significantly higher number of vocalic stress signals were exhibited by Judge Kavanaugh during the second hearing compared to the first, on average. More emotions were

perceived visibly through the screen such as anger, sadness, and fear, which could have caused more responses. Anger was directed toward the Democratic members of the committee for degrading his character, and sadness when he discussed the impact of the allegations had on him and his family. During the initial confirmation hearing and before the sexual assault accusations, Kavanaugh exhibited a cooler temperament and happiness when talking about his family. The findings were able to suggest that more vocalic stress signals would be exhibited during the sexual assault hearing than the confirmation hearing due to the stressful nature of the hearing personal and reputational damage.

Chapter 4 – The Coherence of Verbal and Vocalic Styles

Verbal and nonverbal communication research largely began in the 1960s (Jones & LeBaron, 2002), though much of it focused on either verbal or nonverbal behavior. That was primarily because the researchers believed that the two forms of communication provided separate and unrelated messages. Much of the scholarship cited in earlier chapters provide examples of one-dimensional communication analysis. As research began to focus on how they both interacted to express persuasive messages, even established researchers like Ekman (1973) received criticism for making large assumptions in regard to nonverbal facial signals of deception while ignoring verbal signals (Mead, 1975).

The use of both verbal and nonverbal behavior is consistently used in both personal and professional environments. Especially during face-to-face interactions, verbal content and nonverbal behaviors like eye gaze, body movement, and posture are used together to make judgements of the other person's messaging. In other words, people observe and analyze how someone's verbal and nonverbal messages interacted with each other. If the two forms of communication do not appear coordinated, the observer will likely rely on the nonverbal behavior in communication processing (DePaulo et al., 1978; Hale & Stiff, 1990; Heinrich & Borkenau, 1998).

Some careers require higher attention to verbal and nonverbal behavior of the individuals, clients, or patients they interact with like law enforcement officials, lawyers, doctors, and nurses. However, studies have suggested that those professionals, some even with appropriate training, perform as well as lay persons when picking up discrepancies between verbal and nonverbal messaging, but especially nonverbal. (Strömwall & Granhag, 2003; Akehurst et al., 1996; Strömwall, Granhag, & Hartwig, 2004).

It has been suggested that many of those professionals are more likely to rely on non-verbal signals than verbal messages, even though verbal indicators show higher rates of success in deception detection (Hauch et al., 2014). Vrij (2008) even made a plea for law enforcement to change their practices to increase their focus on verbal lie detection rather than nonverbal. Bogaard et al. (2016) found that police officers and undergraduate students both listed nonverbal cues of deception that were not largely supported by research (i.e. nervousness or eye gaze aversion) and both listed more nonverbal deception cues than verbal. However, police officers did provide more verbal and nonverbal cues than the students.

In legal settings, it has been suggested that jurors rely heavily on nonverbal cues when making their verdict decision (Vrij & Turgeon, 2018). Those authors argued that jurors should not place that much emphasis on nonverbal behavior when making credibility judgements and urged for increased education on the faulty nature of nonverbal cues (Vrij & Turgeon, 2018). In response to Vrij and Turgeon's (2018) paper, however, Denault, Dunbar, & Plusquellec, (2020) claimed that urging jurors to ignore nonverbal communication would not necessarily create more accurate judgements of credibility of witnesses. Instead, they claim that nonverbal demeanor should be used in addition to verbal communication, and they did agree on the need for more education about the accuracy of nonverbal cues.

Empathy and equal care are important aspects of the jobs within the medical field. However, Elliott et al. (2016) found that when physicians were tasked with informing patients that they had a critical or terminal illness, the physicians communicated differently with black and white patients. Specifically, the study found that verbal communication was consistent across race, but nonverbal variance indicated that black patients received fewer positive and

supportive nonverbal cues (e.g. open or closed posture and physical proximity) than the white patients (Elliott et al., 2016).

Conversely, doctors are able to use the verbal and nonverbal behavior of their patients to potentially make or support a diagnosis. For instance, it was suggested that non-depressed elderly patients spent more time verbally discussing their treatment options than depressed elderly patients (Asan et al., 2018). Asan et al. (2018) also suggested that, nonverbally, depressed elderly patients avoided eye contact with their doctor more than the non-depressed patients. Thus, illustrating the usefulness of both form of communication together from different perspectives.

Theoretical Frameworks

Two primary dual process theories of persuasion have been applied when the combined impact of verbal and nonverbal messaging was considered, the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986) and the Heuristic-Systematic Model (HSM; Chaiken et al., 1989). Both argue that individuals use as much available verbal content and nonverbal behavior information as possible, when creating or changing a perception or attitude. They also contend that the amount of effort (high vs. low) exhibited by the individual results in different levels of information processing. In line with the ELM and HSM, individuals that are more invested or motivated in the situation would likely process more information in order to make the best choice or decision. Those with less investment or motivation would likely process less information prior to making a decision. Therefore, the use of just one form of communication to make a decision can be situational.

When Forrest and Feldman (2000) manipulated the level of involvement in a judging task, participants that were highly involved focused more on the verbal message while those

more uninvolved concentrated on the nonverbal behavior of the speaker. However, they further suggested that nonverbal behavior produced higher rates of accuracy during lie detection. Reinhard and Sporer (2008) also considered the relationship between task involvement and credibility judgements. Here, high and low task involvement was measured by telling the participants their personal judgements of the speaker's credibility was either important for future psychological research or just to obtain data for a psychology course. Their results suggest that participants with high-task involvement reported attention to verbal and nonverbal behavior while low-task involvement attended more towards nonverbal behavior.

The familiarity of the situation of interest has been shown to play a role between verbal and nonverbal behavior and credibility. Stiff et al. (1989) suggests that individuals were more likely use verbal messaging to judge credibility when they were familiar with the situation, in this case, the details and location of a car accident scene. When there was low familiarity of the situation, participants focused more on the nonverbal behavior to judge credibility. In a similar study, Reinhard, Scharmach, and Sporer (2012) received results which confirmed those of Stiff et al. (1989), but further manipulated the source of familiarity. Whether familiarity was based on knowledge of a location or were given an excerpt providing some participants with a brief summary of a topic, the findings were the same. The higher level or actual or perceived familiarity, the more likely an individual is to use only verbal content and those with low familiarity focused primarily on nonverbal signals. Consequently, focusing on only verbal or nonverbal behavior does not allow for a unified or coherent message to be observed or processed prior to judgements or decisions.

Coherence of Verbal and Nonverbal Behavior During the Kavanaugh Hearings

Chapter 2 and 3 highlighted the important relationships that both verbal and nonverbal behavior has on narrative and messaging success, independently. The purpose of this chapter is to understand the role that the verbal content and nonverbal vocalic signals, interdependently, played within Brett Kavanaugh's confirmation hearings.

As different levels of exogenous stress were present in the initial confirmation hearing and the sexual assault hearing, the combination of verbal and nonverbal vocalic messaging could have potentially persuaded members of the Senate Judiciary Committee and the American public to either believe his message or not. That information could provide insight on his verbal message approach and his internal emotional state because nonverbal behavior is capable of distracting individuals from the verbal message (Petty & Cacioppo, 1986). Any increases of nonverbal vocalic behaviors could potentially negatively affect the efficiency of his overall message and narrative.

Methodology

Unit of Analysis

As with Chapter 2, the verbal statements (or "sentences") made by Kavanaugh during his Day One and sexual assault hearings conducted by the Senate Judiciary Committee were the unit of analysis. As opposed to using utterances and intra-utterances like with the nonverbal communication analysis, individual statements allowed for more accurate descriptions of the relationships between the verbal and nonverbal behaviors. That is because multiple rhetorical functions could have been present within each individual utterance, and as a result, would have made it very difficult to see if and by how much specific rhetorical functions interacted with the vocalic behaviors.

Data Collection & Analysis

Through the video content coding software, ANVIL (Kipp, 2012), the end time of each statement made by Justice Kavanaugh (149 during the Day One and 338 during the sexual assault hearing) and each nonverbal vocalic behavior (29 during Day One and 181 during the sexual assault hearing) were analyzed. As with the previous chapters, the full 45-minute sexual assault hearing was used to analyze the overall trends of both the verbal (Chapter 2) and vocalic (Chapter 3) behaviors, but it was also cut into three (first, middle, last) 15-minute segments to provide a closer analysis at those behaviors and how they interacted over the time of the hearing.

To understand the relationships, if any, present between the type of verbal statement and presentation of nonverbal vocalic behaviors, vocalics were matched with the rhetorical function used just prior to the occurrence. In other words, relationships between Kavanaugh's verbal and nonverbal behavior were created to understand the messages portrayed through both forms of communication. Because the Day One hearing was roughly 15-minutes long and the sexual assault hearing had a duration of roughly 45-minutes, the sexual assault hearing was cut into three 15-minute segments to more accurately compare between the two, and was referred to as the first, middle, and last 15-minute segments.

Findings

Day One Hearing

Personal Narratives

Kavanaugh spent 6 minutes and 36 seconds making a total of 69 *personal narrative* statements. The findings showed that *sighs, sharp intakes of breath,* and *sniffs* appeared most during or as a result of these statements. On average, a vocalic appeared every 15 seconds for a total of 26 (Table 9). 19 *Sharp intakes of breath* occurred every nineteen seconds, on average.

Five *sniffs* occurred, on average, every minute and 14 seconds. Two *sighs* occurred during this rhetorical function, on average, every three minutes and 18 seconds.

Attempt to Define Reality

Kavanaugh's 58 *attempt to defines reality* statements occupied five minutes and nine seconds of the Day One hearing. One *sniff*, one *sharp intake of breath,* and one *sigh* occurred during or as a result of this rhetorical function, on average, every minute and 42 seconds.

Policy Advocacy and Acclaims

Kavanaugh spent just 54 seconds making 12 *policy advocacy* statements and 41 seconds making 10 *acclaim* statements during the Day One hearing. No vocalics appeared during or as a result of these rhetorical functions.

Table 9. *Number of vocalic occurrences within each rhetorical function during the Day One hearing.*

Rhetorical Function	N of Rhetorical Functions	Sighs	Sharp Intakes of Breath	Sniffs	Total
Attempt to Define Reality	58	1	1	1	3
Policy Advocacy	10	0	0	0	0
Acclaim	12	0	0	0	0
Personal Narrative	69	2	19	5	26

Sexual Assault Hearing

Personal Narrative

68 *personal narrative* statements utilized almost seven minutes of Kavanaugh's time during the sexual assault hearing. Within that time, 67 vocalics were observed, occurring once every 6 seconds, on average. During or as a result of this rhetorical function, eight *sighs*, 14 *sharp intakes of breath*, and 41 *sniffs* were observed. Vocalics were used most frequently during

or as a result of this rhetorical function, with one occurring every nine seconds of *personal narrative* statements in the first 15-minutes, six seconds in the middle 15-minutes, and five seconds in the last 15-minutes (Table 11).

Findings suggest that as number of *personal narrative* statements increased from the first and middle 15-minute segments so, too, did the number of *sighs* ($N_{\text{first 15-minutes}} = 2$; $N_{\text{middle 15-minutes}} = 5$), *sharp intakes of breath* ($N_{\text{first 15-minutes}} = 3$; $N_{\text{middle 15-minutes}} = 7$), and *sniffs* ($N_{\text{first 15-minutes}} = 4$; $N_{\text{middle 15-minutes}} = 17$). However, within the last 15-minutes, Kavanaugh exhibited fewer *sighs* ($N = 1$) and *sharp intakes of breath* ($N = 4$), compared to prior segments, but more *sniffs* ($N = 24$).

Attempt to Define Reality

During the sexual assault hearing, Kavanaugh spent just over 12 minutes of the 45-minute presentation making a total of 117 *attempt to define reality* statements. Within those statements or as a result of verbalizing them, five *sighs*, nine *sharp intakes of breath*, and 47 *sniffs.* 61 total vocalics were exhibited by this rhetorical function, occurring once every 11 seconds, on average. Table 11 highlights the increased rate of vocalics over time, with a vocalic likely to appear every 39 seconds during the first 15-minutes but every five seconds in the last 15-minutes on average.

As provided by Table 10, trends were present between the function and vocalics over the three 15-minute segments. *Sighs* were similarly distributed over the three segments while *sharp intakes of breath* saw slightly more variation with fewer occurrences in the middle 15-minutes but doubled in the last 15-minutes although less statements of this rhetorical function were made. *Sniffs*, however, showed increases from the first 15-minutes ($N = 2$), middle 15-minutes ($N = 19$),

and the last 15-minutes ($N = 26$). Thus, findings suggest that all vocalics were likely to appear during this rhetorical function, but *sniffs* were most likely to appear at increasing levels.

Defenses

Kavanaugh made 89 *defense* statements, consuming about ten minutes and 14 seconds of his presentation. One *sharp intake of breath*, 41 *sniffs*, and zero *sighs* for a total of 42 vocalics. A vocalic appeared every 14 seconds, on average. As with the previous rhetorical function, Table 11 shows that rates of vocalic occurrences increased over time within *defense* statements from one every 55 seconds in the first 15-minutes to one every eight seconds in the last 15-minutes.

Kavanaugh's rates of *sniffs* continued to increase even though the number of *defense* statements decreased over the course of the presentation. In the first 15-minutes, there were 35 *defense* statements and four *sniffs*, the middle 15-minutes had 28 *defenses* with 13 *sniffs*, and the last 15-minutes had 26 *defenses* with 24 *sniffs.* Therefore, frequency of *sniffs* increased with *defense* statements as the presentation continued. The one *sharp intake of breath* occurred in the last 15-minutes, which also indicated that vocalics increased over time of the presentation.

Attacks

Three minutes and 14 seconds were used for Kavanaugh to make 28 *attack* statements. During that time, only two *sniffs* appeared. On average, the rate of occurrence was every minute and 36 seconds. However, 25 of the *attack* statements occurred in the first 15-minute segment but the two vocalics occurred in the last 15-minute segment which contained the remaining three *attack* statements. It is possible that the *sniffs* occurred by chance as a result of these statements.

Acclaims

Acclaims occupied three minutes of Kavanaugh's time over 28 total statements. As a result of those statements, 10 vocalics were exhibited. One *sharp intake of breath* and 9 *sniffs* were present, but no *sighs* were found in connection of *acclaim* statements.

The first 15-minutes, which contained eight *acclaims*, saw zero vocalics, the middle 15-minute segments found one *sharp intake of breath* and one *sniff* in connection to seven statements, and the last 15-minutes exhibited eight *sniffs* during 13 statements. The results could be residual effects from the other rhetorical functions. In other words, the other rhetorical functions that triggered the most vocalics could have carried over into other statements like *acclaims.*

Table 10: *Number of vocalic occurrences within each rhetorical function during the Day One hearing.*

Rhetorical Function	15-Minute Segment	N of Rhetorical Functions	Sighs	Sharp Intakes of Breath	Sniffs	Total
Attempt to Define Reality	First	42	2	3	2	7
	Middle	45	1	2	19	22
	Last	31	2	4	26	32
Acclaim	First	8	0	0	0	0
	Middle	7	0	1	1	2
	Last	13	0	0	8	8
Personal Narrative	First	14	2	3	4	9
	Middle	33	5	7	17	29
	Last	31	1	4	24	29
Attack	First	25	0	0	0	0
	Middle	0	0	0	0	0
	Last	3	0	0	2	2
Defense	First	35	0	0	4	4
	Middle	28	0	0	13	13
	Last	26	0	1	24	25

Table 11: *Average occurrences of each vocalic behavior during the sexual assault hearing.*

Rhetorical Function	15-Minute Segment	Time Spent (in mins. & secs.)	Sighs	Sharp Intakes of Breath	Sniffs	Total
Attempt to Define Reality	First	4:30	2:15	1:30	2:15	39 sec.
	Middle	4:43	4:43	2:21	0:15	13 sec.
	Last	2:46	1:23	0:42	0:06	5 sec.
Acclaim	First	0:43	0	0	0	0
	Middle	0:40	0	0:40	0:40	20 sec.
	Last	1:35	0	0	0:12	12 sec.
Personal Narrative	First	1:24	0:42	0:28	0:21	9 sec.
	Middle	2:56	0:35	0:25	0:10	6 sec.
	Last	2:37	2:37	0:39	0:07	5 sec.
Attack	First	2:57	0	0	0	0
	Middle	0	0	0	0	0
	Last	0:17	0	0	0:085	17 sec.
Defense	First	3:38	0	0	0:55	55 sec.
	Middle	3:16	0	0	0:15	15 sec.
	Last	3:20	0	3:20	0:08	8 sec.

Comparing the Day One and Sexual Assault Hearing

Despite all six rhetorical functions used over the course of the two hearings, only *personal narratives, acclaims,* and *attempt to define reality* statements were utilized in them both. As a result, only those functions were compared to detect patterns, if any, that potentially could indicate if and which statements influenced the increased rates of vocalic stress signals in the sexual assault hearing.

As shown in Tables 12-14, *attempt to define reality* and *personal narrative* statements were both found to elicit the vocalic behaviors. Among the 16 total *sighs* across both hearings, ten occurred as a result of *personal narrative* statements and the remaining six occurred as a result of *attempt to define reality* statements. This vocalic occurred at similar rates across the Day One hearing and the three 15-minute segments of the sexual assault hearing, with the

exception of the middle 15-minutes which saw double the number of *sighs* compared to Day One. That sharp increase is suggested to be linked to *personal narrative* statements.

Sharp intakes of breath ($N = 45$) were also primarily found within or as a result of *attempt to define reality* ($N = 10$) and *personal narrative* ($N = 33$) statements. However, one *sharp intake of breath* occurred with an *acclaim* statement and another with a *defense* statement, though the possibility of chance could not be ruled out. This vocalic behavior appeared at higher rates during the Day One hearing than during any of the three 15-minute segments from the sexual assault hearing by at least double the rate. While *sharp intakes of breath* appeared largely within the same rhetorical functions across hearings, this was not the primary physiological response during the sexual assault hearing.

Sniffs were found to occur most within *attempt to define reality, personal narrative,* and *defense* statements. In the Day One hearing, *defense* statements were not made, therefore, cannot be compared. 50 of the combined 150 *sniffs* occurred during *personal narrative* statements and 48 *sniffs* aligned with *attempt to define reality* statements and across both hearings. This indicates that these two rhetorical functions were most likely to show this vocalic across both hearings, but the sexual assault hearing showed higher rates. Additionally, however, 41 *sniffs* aligned with *defense* statements, 9 with *acclaims*, and 2 with *attack* statements. No *attacks* or *defenses* occurred in the Day One hearing, providing additional insight to Kavanaugh's stress levels as statements that could increase his stress via vocalics were not used in the initial hearing.

Sniffs were most prominent in the sexual assault hearing as shown in Table 14. Compared to the Day One hearing, the first 15-minutes of the sexual assault hearing already showed nearly double the number of *sniffs* and just increased significantly from there, doubling five times compared to the middle 15-minutes and eight times to the last 15-minutes.

Table 12. *Sigh occurrences across the Day One and sexual assault hearing.*

Rhetorical Function	Day One	First 15-Minutes	Middle 15-Minutes	Last 15-Minutes	Total
Attempt to Define Reality	1	2	1	2	**6**
Policy Advocacy	0	-	-	-	**0**
Acclaim	0	0	0	0	**0**
Personal Narrative	2	2	5	1	**10**
Attack	-	0	0	0	**0**
Defense	-	0	0	0	**0**
Total	**3**	**4**	**6**	**3**	**16**

Table 13. *Sharp intakes of breath occurrences across the Day One and sexual assault hearing.*

Rhetorical Function	Day One	First 15-Minutes	Middle 15-Minutes	Last 15-Minutes	Total
Attempt to Define Reality	1	3	2	4	**10**
Policy Advocacy	0	-	-	-	**0**
Acclaim	0	0	1	0	**1**
Personal Narrative	19	3	7	4	**33**
Attack	-	0	0	0	**0**
Defense	-	0	0	1	**1**
Total	**20**	**6**	**10**	**9**	**45**

Table 14. *Sniff occurrences across the Day One and sexual assault hearing.*

Rhetorical Function	Day One	First 15-Minutes	Middle 15-Minutes	Last 15-Minutes	Total
Attempt to Define Reality	1	2	19	26	**48**
Policy Advocacy	0	-	-	-	**0**
Acclaim	0	0	1	8	**9**
Personal Narrative	5	4	17	24	**50**
Attack	-	0	0	2	**2**
Defense	-	4	13	24	**41**
Total	**6**	**10**	**50**	**84**	**150**

Discussion

Dual processing theories like the ELM (Petty & Cacioppo, 1986) or HSM (Chaiken et al., 1989) have argued that individuals use both verbal and nonverbal forms of communication when processing messages and making decisions. Attention to both verbal and nonverbal behaviors during information processing can allow for more accurate detection of messaging discrepancies. If present, the results could show a decrease in credibility and overall persuasiveness of the message (DePaulo et al., 1978; Hale & Stiff, 1990; Heinrich & Borkenau, 1998).

However, in some situations, focus is placed more heavily on either verbal or nonverbal behaviors. In particular, it has been suggested that individuals rely more on verbal behaviors when involvement within the task was high, but nonverbal behaviors are relied on more by those that were less involved (Reinhard & Sporer, 2008). Likewise, participants that were familiar with specific details of an event were more likely to focus on fact-checking the verbal statements whereas those unfamiliar with the details tended to rely on nonverbal communication before making a credibility judgement (Stiff et al., 1989).

The present study sought to understand the relationship between Justice Brett Kavanaugh's verbal content and nonverbal vocalic behavior across and between the two hearings. When analyzed together, results suggested that the sexual assault hearing elicited stronger relationships between the type of verbal statement and rate of nonverbal vocalic presentment. However, in neither hearing were all six types of statements present: attempt to define reality, attack, defense, acclaim, policy position, and personal narrative (Benoit, 1999; Bucy 2018).

The findings suggest that, for the sexual assault hearing, nonverbal vocalic *sniffs* and *sharp intakes of breath* were more likely to present as a physiological response to *personal*

narrative and *attempt to define reality* statements during both of Kavanaugh's presentations. However, *personal narratives* appeared to be used in different ways during the two hearing, and thus, resulted in different stress responses. The initial hearing was focused more on getting to know the nominee on a more personal level while the same rhetorical function was used as indirect defenses. For example, he got emotional in the sexual assault hearing as he told the personal story of how his detailed childhood calendars, a habit instilled in him by his father, that would have, but did not, show that he was at the party alleged by Dr. Blasey-Ford. The Day One hearing saw a higher relationship with *sharp intakes of breath* while the sexual assault hearing produced more *sniffs.* Both, however, could suggest higher stress levels given no correlations with *sighs*, which can indicate stress relief.

While no *sighs* presented during or as a result of *defense* statements, *sharp intakes of breath* and *sniffs* were found. The presence of physiological stress responses could have helped or hurt Kavanaugh's overall approach to the sexual assault hearing. While those that were already likely to support him may find ways to justify the behavior as an emotional response connected to his victimhood, those that did not support him may likely use that to support their judgements of deception. It would be interesting to know how those with no preconceived judgement viewed and processed the vocalic behaviors, especially as previous studies have suggested that in similar situations the observer typically relies on nonverbal communication to make judgements (DePaulo et al., 1978; Hale & Stiff, 1990; Heinrich & Borkenau, 1998).

Vocalic stress signals, on the other hand, were less likely to present as a response to *attack* statements. That trend was probably due to increased efforts to appear credible during those statements. The lack of vocalic stress signals during *attack* statements could have helped persuade members of the Senate and those watching at home that Kavanaugh's message was

consistent, regardless of if it actually was or not. Had relationships suggested that those statements presented any of the vocalic signals, judgements of Kavanaugh's credibility and trustworthiness could have been even more damaged. As mentioned in Chapter 3, polling showed an increase in support for Kavanaugh as a result of the sexual assault hearing, up 5% from 26%. Although, Blasey-Ford saw a 10% jump in support after her testimony which was at 32% just prior to the hearing.

Acclaims were also less likely to present vocalics, *sighs, sharp intakes of breath,* and *sniffs,* in both hearings. That could be explained by the possibility that boasting one's credentials, both personally and professionally, would not increase stress enough to require a bodily response as much as other statements.

Policy advocacy interestingly showed a positive relationship with *sharp intakes of breath* during the Day One hearing. While that could be by chance, the presence of this vocalic stress signals during this rhetorical function could suggest that his stress levels increased when informing the Senate about the type of judge that he is and Justice he would be if confirmed. Given that this was the first time he was sitting and speaking to the Senate Judiciary Committee, increased stress may be expected when providing information that could play a factor in a senator's decision to support or oppose the nomination.

The sexual assault hearing's lack of policy positions was likely due to the fact that Kavanaugh had already spent days answering over 1,000 questions from the committee about his policy positions. While he could have still used that rhetorical function to remind the committee of his judicial philosophy, that time was needed to address the more relevant subject-matter.

Conclusion

It is no secret that some politicians portray certain narratives to gain or maintain benefits like name recognition or electoral support. It is easy to spread a desired narrative using strategic verbiage in speeches, but the nonverbal signals exhibited during that speech may not be telling the same story. This study opened the door to a better understanding of the narratives portrayed by politicians both verbally and nonverbally, because when used together, inconsistencies could create negative judgements regarding that politician's credibility.

The relationship between verbal statements and nonverbal behavior are interdependent and critical for persuasive messaging. The two forms of communication interact with each other to help create and promote a narrative. When used effectively, the audience is more likely to support that narrative, but if inconsistencies are present, it could be detrimental to the success of the politician's goal, in this case, the confirmation for a Supreme Court nominee.

Nonverbal behavior is often considered in deception research, which could not logically be used in the currently study due to the fact that FBI and other investigations were unable to provide definitive evidence regarding whether Justice Kavanaugh was being deceptive or not. Therefore, this analysis did not attempt to make those conclusions. However, emotions like stress could create judgements of deception, and in political events and scandals like this the Kavanaugh confirmation, even the perception of deception can cause as much damage as if it was proven fact.

The importance of this work extends beyond this case study and even Supreme Court confirmations. Microanalyses of the verbal and nonverbal behavior of political figures, together, can allow citizens to better understand potential motives, intentions, and emotional states in many different settings. For example, the media wrote several articles during the 2016

presidential election in regard to now-President Trump's nonverbal behavior during debates and even in 2020 as he addresses the national regularly about the COVID-19 pandemic. In particular, journalist and pundits comment on his use of hand gestures, facial movements, and vocalics like sniffs. That has caused some to create judgements that he may be lying if his nonverbals suggest nervousness when his verbal communication suggests the national strength.

The Kavanaugh confirmation also came on the heels of the #MeToo Movement which encouraged women to tell their stories of sexual harassment and assault and highlighted how commonplace it is within American society. It's possible that many women, and victims of sexual assault in general, became very concerned when Kavanaugh was still confirmed to the highest Court in the country because, in a way, it either suggested that the allegations weren't serious enough or just didn't matter at all. This study could not conclude that the nonverbal vocalics would persuade more people to believe Blasey-Ford over Kavanaugh, but a better understanding of the interdependence of verbal and nonverbal behavior could have provided more insight of his message and emotional state.

In July of 2018, President Donald Trump nominated Judge Brett Kavanaugh to replace Justice Kennedy's seat on the United States Supreme Court. Shortly after Kavanagh's initial confirmation proceedings, before the Senate could vote to confirm him, sexual assault allegation became public. The alleged event, according to Dr. Blasey-Ford, the accuser, occurred thirty-sex years prior, at a party when they were in high school. The allegations led to additional hearings by the Senate Judiciary Committee to hear testimonies from Blasey-Ford and Kavanaugh.

The present study sought to understand the narrative and messaging approach used by Kavanaugh during his sexual assault hearing compared to his initial confirmation hearing. To do that, the verbal and nonverbal vocalic behavior exhibited were analyzed. The goal was to see

what relationship exist between verbal content and nonverbal vocalics, separately and interdependently, when presented with different forms of stress. How they presented could influence the judgements of credibility from the Senate which had to vote to confirm or reject him and from the American public at large that would be affected by the decisions he would make as a Justice.

While there are larger questions that may be asked regarding the influence of verbal statements and nonverbal on media reporting and public perceptions, the focus of this study was on three specific research questions that draw from three distinct theoretical traditions and synthesize them to provide greater insight into the actual performance of Justice Brett Kavanaugh during his Supreme Court confirmation hearings before the Senate. As illustrated in Table 14, the three research questions focused on Kavanaugh's verbal narrative, nonverbal vocalic stress signals, and how those two forms of communication related to one another.

Table 14. *Research questions and findings.*

Research Questions	Findings
R_1: How does Kavanaugh's verbal narrative differ from the Day One hearing and the sexual assault hearing?	1. More defense and attack statements were made during the sexual assault hearing than the Day One hearing.
R_2: How does Kavanaugh's nonverbal vocalic behavior differ from the Day One hearing and the sexual assault hearing?	2. Utterance duration increased over time during the first hearing but decreased over time in the sexual assault hearing. 3. Lengths of intra-utterance pauses decreased over time during the Day One hearing but increased over time during the sexual assault hearing. 4. Nonverbal vocalic behaviors were more likely to occur during intra-utterance pauses than utterance periods. 5. Higher rates of nonverbal vocalic stress signals were present in the sexual assault hearing than in the Day One hearing, on average.
R_3: When Kavanaugh's verbal and nonverbal vocalic behavior is combined, how does the overall coherence differ between the two hearings?	1. Less vocalics appeared during attack and defense statements, even though more stress may be present. 2. Vocalics were more likely to appear with personal narrative statements.

R_1 – How does Kavanaugh's verbal narrative differ from the Day One hearing and the sexual assault hearing?

The Narrative Policy Framework (Jones and McBeth, 2010) argues that the way stories are conveyed is critical to policy success and to the policy process in general. Put differently, narrators are able to use setting, characters, and plots to create a story that supports the need for their policy proposal in hopes that it influences the policy process. If used effectively, through clearly defined conflicts, causal mechanisms, and use of hero, villain, and victim characters, higher levels of narrative influence could follow (Jones and McBeth, 2010).

The NPF, though mainly focused on policy, can be applied to most politicians as narratives are also used to influence the political processes around them. In the current study, narratives were analyzed within the political process of Supreme Court confirmations. The most recent confirmation of Brett Kavanaugh highlighted the importance of narratives but also the shifts in narratives as his confirmation became more uncertain. In order for him to have still been successfully confirmed after the allegations of sexual assault were brought against him, his narrative from Day One of his initial hearings would have to change.

His Day One hearing gave Kavanaugh time (16-minutes) to talk uninterrupted to the Senate Judiciary Committee about who he is on a more personal level. He discussed a variety of topics like his family, wife, and children but also his past judicial record and philosophy. However, during the additional investigative hearing by the same committee, Kavanaugh had to take a different approach in he still wanted to be confirmed to be a Supreme Court Justice.

To understand the verbal content and Kavanaugh's overall narratives during his Day One and sexual assault hearing, focus was placed on the Functional Theory of Political Campaign Discourse (Benoit & Harthcock, 1999; Benoit, 1999). The primary goal of the theory is to

understand how political figures use messaging as a way to influence support. They do that by analyzing the rhetorical statements made and how, when used together, form the political figure's overall narrative used to reach their desired outcome. While the theory has focused heavily on presidential debates and campaigns, this study provides evidence that its application can be useful in other political processes.

Attacks, acclaims, and *defenses* are the primary rhetorical functions used in the Functional Theory. *Attacks* were statements aimed at criticizing opponents, *defenses* were used to address and defend against attacks made by an opponent, and *acclaims* were used to boast personal and profession characteristics and qualifications (Benoit,1999; 2014; 2019; Benoit & Harthcock, 1999). Bucy (2018) made additions to the rhetorical functions by adding *attempt to define reality* and *personal narratives*, and *policy position* statements. *Attempt to define reality* statements were used when the figure of interest explained "the world out there" from their point of view. *Personal narrative* statements told a personal story from the past, and *policy positions* expressed the narrator's views regarding policy.

For the present study, each of Kavanaugh's statements during his Day One hearing and the sexual assault hearing speeches were broken down into one of five categories: *attempt to define reality, attacks, acclaims, defenses,* or *personal narrative* based on pervious work by Benoit (1999; 2014; 2019) and Bucy (2018). Given the different nature between Supreme Court confirmations and presidential debates, some of the definitions to the rhetorical functions were altered to apply more narrowly to the process, given the fact that Kavanaugh was not debating another nominee. Also, because Kavanaugh was able to speak uninterrupted, *attacks* were either those directed towards him that he addressed or those he made toward others. *Policy positions*

were reframed to apply more appropriately to the policy roles that the Judiciary are responsible for.

Results found that Kavanaugh repeatedly made statements that would make him look like a hero during the Day One hearing. No *attack* or *defense* statements were made during this hearing, potentially indicating lower levels of stress or desire to appear even-tempered, as his nomination was not without criticisms from the start of his nomination.

Personal narratives were utilized for nearly half of the initial hearing (49%), as this function allowed him to provide personal stories like those of his childhood with his parents, teaching at Harvard Law School, coaching his daughters' sports teams, and expressed his appreciation for his wife during this process. Kavanaugh was able to appear not just as a judge on arguable to second most important court in the country but as a husband, father, and son.

Additionally, *policy positions* were used, though most infrequently in comparison to the other functions, when he claimed to practice unbiased judicial decision-making, such as not being pro-defendant or pro-plaintiff, and *acclaims* when he boasted about his record for hiring women and African Americans was higher than most other judges. Especially when it came to women, he attempted to appear as a hero in the sense that his hiring of all-women law clerks would make history and advance the presence of women in clerkship positions. Though true, given the circumstances of the sexual assault hearings, that message could appear to some as a forced effort to appeal to the opposition. Coming from a strong-leaning conservative judge, this narrative was most likely used in hopes to acquire support from Democrats and moderates that were wary of his potential rulings on the bench.

In the sexual assault hearing, however, Kavanaugh's narrative was to play the victim against the villainous image created by those likely to oppose him. Media and Democratic

Senators quickly called him out on that behavior, even referring to this as privilege, as many saw him as the wrongdoer and Dr. Blasey-Ford as the victim. When reviewing the exchanges made during the hearings, it is clear that Kavanaugh used his verbal statements to stand his ground by defending his name and reputation while also taking time to fire back at those that criticized him.

Kavanaugh spent almost 30% of the sexual assault hearing defending himself against the allegations and more generally his overall reputation. On the other hand, nearly 10% of the hearing was spent attacking members of the committee, the media, and even political process in its entirety. This created the strongest distinction between this hearing and the initial hearing. While attacks and defenses could have hurt his goal in the first hearing, it was more necessary here given the seriousness of the allegations and possible ill-intentions by the Democratic Party to have the confirmation fail. While *defenses* can make political figures appear weak, the use of *attacks* can create perceptions of strength and confidence.

Like the Day One hearing, *personal narratives* were utilized, but took a smaller portion of time in the sexual assault hearing. The rhetorical function was also used differently between the two hearings. While they both consisted of stories from Kavanaugh's past, they served different purposes. They were used more as evidentiary support for his defenses. As a way to advocate for his innocence, his stories largely revolved around what he did during the summer of the alleged event and how his detailed calendars would have said if he had been at the party and if Blasey-Ford had been there.

Importantly, *acclaims* were still used in this hearing, although presented the least number of statements besides *policy positions* that were not used at all. This highlighted that parts of the narrative from Day One were still present as his end goal of being confirmed to the Supreme

Court still remained. The additional hearing allowed Kavanaugh to provide more information and detail in regard to past political careers and his devotion to hiring all-women law clerks.

Overall, the verbal analysis of his statements made the narratives clearer from Day One to the sexual assault hearing. Although the narrative was to appear most qualified and worthy of being a Justice on the United States Supreme Court, it was much more intricate during the sexual assault hearing. While the nature of the two hearings were drastically different, there was some overlap in narrative approached as the end goal remained constant. However, the strong differences like the use of *attack* and *defense* statements in the second hearing highlight the multi-dimensional narrative Kavanaugh used to defend his personal reputation while also fighting for his confirmation.

R_2: How does Kavanaugh's nonverbal vocalic behavior differ from the Day One hearing and the sexual assault hearing?

This study sought to understand how Kavanaugh responded to the variation of stress present in both hearing through nonverbal vocalic stress signals and speech patterns, or more specifically, pause patterns. The three nonverbal vocalic stress signals, *sighs, sharp intakes of breath*, and *sniffs* were observed during Kavanaugh's utterances and intra-utterance pauses to measure his physiological stress responses throughout both hearings. Some conclusions have been made through previous research, though much is preliminary, that these behaviors may present when an individual is under stress as an attempt to regulate their breathing patterns and return to homeostasis. *Sighs*, for example, have been suggested to occur due to a relief of stress (Vlemincx et al., 2009). The other vocalics, *sniffs* and *sharp intakes of breath*, may indicate disrupted breathing patterns as a result of increased stress (Hudson et al., 2016).

The study found three *sighs*, twenty *sharp intakes of breath*, and six *sniffs* during the 16-minute long Day One hearing. In comparison, the 45-minute long sexual assault hearing presented thirteen *sighs*, twenty-five *sharp intakes of breath*, and 143 *sniffs*. In total, 29 vocalic stress indicators were observed on Day One and 181 were observed during the sexual assault hearing. *Sighs* and *sniffs* presented significantly more, on average, in the sexual assault hearing than Day One but *sharp intakes of breaths* were more likely to occur on Day One. Thus, there is support to the claim that personal and reputational stress that Kavanaugh faced in the sexual assault hearing can be seen through increased sighs and sniffs, pretense of vocalics within intra-utterance pauses, and shorter utterance length.

The duration of Kavanaugh's utterances and intra-utterance pauses were used to potentially show irregularities in speaking patterns, as increased pauses with shorter speaking times have been linked to heightened cognitive load (Kendall, 2009). The study found increased duration of utterances in the Day One hearing but decreased utterance duration during the sexual assault hearing and decreased intra-utterance pause duration during the Day One hearing but saw no significant differences of intra-utterance duration in the sexual assault hearing. In other words, Kavanaugh was able to increase his speaking time before requiring a longer pause to recovery breath regulation on Day One. However, increased stress during the sexual assault hearing resulted in the additional increased need for breath recovery as indicated by the significant decrease in speaking times.

Lastly, it was found that the vocalic behaviors were most likely to occur during intra-utterance pauses than during an utterance period. *Sighs* exclusively presenting during intra-utterance pauses in both hearings, likely due to the time required to exhibit the behavior disrupted the utterance flow. *Sharp intakes of breath* presented during intra-utterance pauses at

chance level during the Day One hearing but just over 60% in the sexual assault hearing. *Sniffs* also presented in intra-utterance pauses at chance level during the Day One hearing, and only slightly above average (57%) during the sexual assault hearing.

With those findings, it was suggested that Kavanaugh experienced higher levels of physiological stress responses during the sexual assault hearing than the initial confirmation hearing. While that is not completely surprising given the nature of the hearing, but the actual analysis of how that stress was released through vocalizations and the rates of each will open the door for addition vocalic stress research. That way, when observing others verbal and nonverbal messaging, vocalics would be among those taking into consideration before making a judgement or decision.

R_3: When Kavanaugh's verbal and nonverbal vocalic behavior is combined, how does the overall coherence differ between the two hearings?

Finally, research has consistently shown that people use both verbal and nonverbal communication prior to making choices or decisions, referred to as dual processing (Petty & Cacioppo, 1986; Chaiken et al., 1989). While many studies have focused on either verbal or nonverbal, using both can create a more complete understanding of the speaker's messaging (DePaulo et al., 1978; Hale & Stiff, 1990; Heinrich & Borkenau, 1998). That is because using nonverbal behavior to compare with the verbal statements can allow for any discrepancies in messaging to be more accurately detected (Hauch et al., 2014). The final research question sought to understand how the verbal and nonverbal vocalic behavior interacted together as Kavanaugh told the story of his innocent from the alleged sexual assault. Data from previous chapters were used and combined to see if patterns emerged connecting rhetorical function and rates of nonverbal vocalic stress signals.

In both hearings, *attempt to define reality* and *personal narrative* statements were the primary contributors to the occurrences of the three vocalic stress signals, *sighs, sharp intakes of breath,* and *sniffs.* Together, they contributed to 157 of the 211 total vocalics across both hearings. In the Day One hearing, *attempt to define reality* statements were primarily used to provide basic details about the confirmation process and *personal narratives* were used to share personal stories of him and those he values most to the Senate Judiciary Committee. During the sexual assault hearing, however, *attempt to define reality* statements were primarily used to provide "the facts of the case," or in other words, provide the details surrounding the sexual assault allegations prior to set the stage for his other statements like *attacks* and *defenses. Personal narratives* were used differently than the Day One hearing, as well. Here, this rhetorical function was used as support to his *defense* statements through storytelling. It is likely that reliving experiences from his childhoods and having those times being called into question increased his levels of stress as he used those to defend his personal reputation.

Although there were no *defense* statements in the Day One hearing, they contributed to almost 20% of the total vocalics exhibited in the sexual assault hearing. That makes sense, given the nature of the hearing with the entire purpose of allowing Kavanaugh to defend himself. However, the increased rates of vocalic stress signals could have potentially hurt his efforts to appear as credible as possible to ensure enough support to still be confirmed to the Supreme Court. Those that were already in support of his confirmation may have used the increased vocalics as a way to strengthen the argument that he was innocent as he was increasingly emotional throughout the hearing. However, those that already opposed his confirmation may have perceived the same behavior as deceiving as it did not coordinate with the aggressiveness of his verbal statements.

The limited number of vocalics that occurred during *attack* statements, with just two *sniffs* over the entire course of the hearing, could have helped Kavanaugh's messaging appear more persuasive. Had more vocalics appeared, it would have made his *attacks* appear weaker and inconsistent.

Across both hearings, *acclaims* and *policy advocacy* statements did not engender vocalic stress signals. That is likely due to the nature of the rhetorical functions. As a judge, Kavanaugh was probably comfortable talking about his credentials and expressing his judicial philosophy, especially given the fact that he had sat in front of the same committee before being confirmed as a federal judge prior to this confirmation. While some may feel uncomfortable talking themselves up or boasting about their credentials, it was necessary in these circumstances. So, for some this rhetorical function could increase stress, but it did not appear so with Kavanaugh.

In sum, when the verbal content and nonverbal vocalics were analyzed together to see what relationships, if any, existed between the two, this study found that *personal narrative, attempt to define reality,* and *defense* statements were most likely to elicit vocalic behaviors while *attacks, acclaims*, and *policy advocacy* statements were least likely to evoke vocalic stress signals.

Contribution to the Literature

Little work has been done in the analysis of verbal and nonverbal behavior exhibited by political figures, with the potential exception of top political leaders. A better understanding of how those two forms of communication interact could create a more accurate analysis of their overall narrative and messaging. While the Functional Theory (Benoit 1999) has been consistently been validated, this study utilized it within a different type of political setting than debates or speeches, and thus broadened its applicability.

Nonverbal vocalics have not produced the same magnitude of studies as more traditional forms of nonverbal behaviors like eye gaze, posture, and body movements have, but still provide useful information in regard to the level of stress the political figure is experiencing. Although, without more scholarship analyzing the connections between vocalic behaviors and stress, generalized conclusions cannot be made.

Combined with the verbal components, a better understanding of political figures' messaging could be understood. As many people have become concerned with the truthfulness and transparency of political officials, the ability to understand when their verbal and nonverbal communication are telling two different stories, a new level of accountability and oversight could be possible.

Limitations

This study was not immune to limitations. This case study only analyzed a single individual in a single setting, albeit two instances. Therefore, generalizations and inferences could not confidently be made. Further, because the baseline was still experiencing stress, it made it more difficult to measure verbal and nonverbal vocalic habits exhibited by Kavanaugh and harder to detect variations between the two. An increase in subject of interest could provide more information regarding how emotions and physiology interact.

From a methods perspective, the level of microanalysis conducted was only able to rely on video recordings from a third-party made it difficult at times to pick up every vocalic behavior exhibited by Kavanaugh. At times camera angles made it harder or impossible for coders to accurately identify each vocalic behavior.

Additionally, the issue of discretion in this study was significant. Coders were not immune to confusion in definitions. For example, whether a single sentence was one statement

type or the other or if a vocalic behavior was actually that or just a normal breath picked up by the microphone. On numerous occasions, a single statement could have been more than one type of statement, causing coders to try to determine how Kavanaugh intended it to mean.

Furthermore, additional research concerned with emotions and nonverbal vocalic behavior is necessary. While literature exists looking at emotions and heartrate and breath control, physiological responses should not be overlooked.

Future Study

Although the present study looked further and deeper into the relationship between verbal and nonverbal responses to stress, many more questions arose that could not be answered within this single project. It became apparent that numerous holes still exist in the literature and would provide critical to understanding how people successfully, and unsuccessfully, communicate within the political sphere and other environments.

Other Nonverbal Behavior During the Kavanaugh Hearings

For many reasons, more conventional studies of nonverbal behavior were not analyzed in this study. This was mostly due to the fact that Kavanaugh was sitting behind a large desk and the camera angles were out of the researcher's control, making it difficult or impossible to accurately observe behavior like leg movement and body posture. However, arm and hand movement, blink rate, eye gaze, and other displacement gestures would be possible to observe and analyze. Other nonverbal behavior such as drinking water and turning the pages of his speech were also exhibited in ways that could provide insights into Kavanaugh's emotional state.

Microanalyses of Other Confirmations

The current study focused solely on a single Supreme Court confirmation hearing. To provide a more well-rounded and extensive data set, more confirmations could be analyzed using

the methods of this study. Even further, many other important political figures have to be appointed through the Senate like federal judges and Department Secretaries. Branching out to other political positions could allow for interesting comparisons and conclusions.

Public Opinion

While the current study analyzed the verbal and vocalic behaviors, a potential next step would to analyze the effects the verbal and vocalic communication had on the public. Since the vocalics could have supported or damaged the persuasiveness of Kavanaugh's argument, it would be important to measure that via participants. Additionally, it would be beneficial to see if factors like partisanship or ideology play a role in the perception of the coordination of the verbal statements and the nonverbal vocalic stress signals.

Technological Advances

Although unavailable for this study, there have been significant advancement in technology that could be very useful for future replications. For instance, software can now track blink rate which would have to be individually coded using the software utilized in this study. As more interest around nonverbal communication increases, technology will be useful in creating more accurate data in less time.

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