Prosodic Analysis of Humor in Stand-up Comedy

Asma Naz¹
Muhammad Umar Farooq²
Sajda Jabeen³

Abstract: The present study investigated the prosodic features employed by Trevor Noah to create humor in his stand-up comedy. The study used quantitative paradigms to frame the verbal narrative. The research employed, Prosodic Markers of Saliency in Humorous Narratives (Pickering et al., 2009) as theoretical framework for prosodic features. Firstly, the data was anatomized via systematic prosodic and cognitive incongruites between the jokes’ setup and the punch lines. Secondly, for each humorous narrative, a series of measurements including pitch, volume, and pause, as identified by Praat (6.1), were used as a framework to dig out the implicit and explicit factors that caused humor in stand-up acts. The data analysis showed that the orator employed a substantial pause before delivering his punch lines which created humor. The study concluded that prosody played a vital role in creating humor, which falls within the domain of linguistics. The study was significant as it contributed to research concerning narrative forms of jokes based on instrumental prosodic analysis. Further, the research might be conducted to analyze other paralinguistic markers of humor, such as the use of laughter and smile during the delivery of jokes in different Pakistani sitcoms and stand-up comedy, to enlarge the studies on humor’s scope.

Keywords: pitch, prosody, punch line, stand-up comedy, volume

¹Lecturer, Department of English, Capital University of Science and Technology, Islamabad, Pakistan. asma.naz@cust.edu.pk
²Professor, Department of English, Capital University of Science and Technology, Islamabad, Pakistan. muhammad.umar@cust.edu.pk
³Lecturer, Department of English, Capital University of Science and Technology, Islamabad, Pakistan. sajda.jabeen@cust.edu.pk

DOI: https://doi.org/10.54692/jelle.2023.0503191

Introduction
Stand-up comedy is a unique genre in the field of humor where a comedian narrates jokes while performing on stage in front of a live audience. The audience laugh at one-line jokes or short jokes, anecdotes, funny stories, and situations. These stand-up comedians combine
several language techniques, such as sarcasm, irony, wordplay, puns, hyperbole, timing, wit, irony, satire, body language, gestures, postures, eye contact, etc. to make their performance so entertaining that the audience cannot help but burst into laughter. They relied on different prosodic patterns, i.e., high or low pitch, pauses, speech rate, intensity in volume, etc. to enhance their overall performance. The study examined the comedian’s ability to use prosodic features to mark the punch line that made the audience laugh, and to what extent. It also looked at how humor is created in light of the theory that dealt with acoustic features and focused on the performance of humorous narratives in stand-up comedy.

The research used the theoretical framework for prosodic features, “Prosodic Markers of Saliency in Humorous Narratives” (Pickering et al., 2009), wherein they conducted an empirical study to identify if the speakers of the joke marked the punch lines that are prosodically different from the rest of the setups. The humor is said to be signaled by the prosodic features of intonation and pauses used by a professional comedian (Archakis et al., 2010). Pickering’s findings suggested that there was no significant signaling of humor in the punch lines, which used intonational patterns. This theory was applied to amateur stand-up comedians telling jokes and to the acts of a professional stand-up comedian as a starting point for humor analysis. The results proved that the punch lines were delivered differently from the setup in terms of using prosodic features in their humorous narratives. The current research presented an analysis of the setup and punch lines of the jokes extracted from Trevor Noah’s performance, who is a professional stand-up comedian, and discussed the ways he marked his punch lines, which were prosodically different from the setup of his jokes.

Literature Review

The humorous narrative holds various features, and the analysis of its prosodic features has been conducted by different
researchers to investigate how pauses, pitch height, range, etc., are employed by speakers to mine, elucidate and parse the texts. The pioneer studies for the scrutiny of prosodic features have some deficiencies in terms of experimental and empirical components. Moreover, instead of acoustic measures, these studies have been conducted using auditory measures (Wagner & Watson, 2010). Therefore, their outcomes are solely based on a scholar's theoretical interpretation and understanding of the narrated event.

Pickering et al.'s (2009) study made use of the data set gleaned from a collection of joke video recordings. The data set was composed of performances by non-professional stand-up comedian students at the undergraduate level at Georgia State University. This study was further explored by numerous scholars, including Pickering and Attardo (2011), Attardo and Pickering (2011), and Attardo et al. (2013). While extending the theory, Pickering et al. (2009) incorporated impetuous conversational humor into the study. The study discovered that humor in both informal and experimental conversation group contexts is not dependent on volume, speech rate, pauses, or pitch and is not recognisable if it makes the audience laugh. The results showed that humor in talk or in experiment-group situations cannot be discerned by any of the prosodic features in the English language. These findings contradicted the folk theories of humor and favored the claim of non-experimental studies of prosodic humor markers (Attardo et al., 2011).

Bauman (1986), in his study, examined humorous and non-humorous narratives, which indicated that when a speaker narrates or quotes the words spoken by someone else, the quality of his voice changes, and listeners can clearly understand that these words are not his own. The speaker also employs prosodic features along with narrated speech. Bauman stated that features like higher pitch, louder volume, and the presence of pauses are integral elements of storytelling (1986). Similarly, Audrieth (1998) examined the role of pauses in a humorous performance and concluded that timing holds immense importance.
between the punch line and the setup of the joke; too short a time and the impact is lessen by the abrupt end of the joke. Wennerstrom (2001) said that, in addition to the role of prosodic features, the relationship between certain prosodic features and lexical discourse markers should be taken into account when thinking about para-tones. This is so that the organization of the discourse can be better understood. He highlighted a correlation between the characteristics of prosodic features and the structural components of narratives. These claims were supported by the idea that the narratives are evaluative according to Labov’s (1972) terms, which means that the reports of specific events could also help convey the speaker's attitude towards the matters of attitudes and self-expression. After careful analysis of the humorous sequence within a causal conversation that occurred between friends, for example, Wennerstrom commented that “part of what makes this a humorous frame is the fact that some of the speakers associate a low key with their contributions” (Wennerstrom, 2001), and hence, the comments were marked as parenthetical. The conversation's general flow was set aside, but the other speakers displayed a tone of concord during the time.

In his study, Wennerstrom (2011) analyzed six jokes told in the English language and was able to recognize that the speaker used two intonation patterns in order to produce a humorous effect: ‘intonation of contrast” with L* tone that was then followed by H* “intonation of the given information,” or deaccents (pp. 122-123). Both of these types of intonations were an indication of the speaker’s intentions toward the listener, which showed the need for the text to be reanalyzed and then shifted from one interpretation or script to the other. The achievement of humorous effect may be possible if the shift occurs within the script, which is incongruous. Bertrand and Priego-Valverde (2011) studied conversational non-narrative humor and focused on discursive and prosodic cues used by speakers to construct a humorous mode of communication. The results showed that
the interlocutors used a variety of prosodic cues, but all were not directly related to humor. Because of the results obtained from the non-experimental studies, the picture that emerged was seen to be closer to the humor described by folk theories, mainly those that involve the participants who will use the set of prosodic phenomena in order to indicate the existence of humor and also to set the humor aside from the remaining conversation. The majority of the earlier mentioned studies mainly focused on narrative humor or jokes while they were delivered within the conversation, whereas the current study took it one step further into the realm of the comedians who tell jokes as part of their routines.

Data collected from experimental studies of prosodic features of humor point towards a different phenomenon at work. Pickering et al.'s (2009) empirical analysis of prosodic markers in the English language served as a groundbreaking study in this area. The researchers analyzed the jokes told by non-professional comedians to see if humor is marked prosodically or not. Later on, similar studies were conducted by Pickering and Attardo (2011), Attardo and Pickering (2011), and Attardo et al. (2013). Flamson, Bryant, and Barrett (2011) and Kadooka (2012) completed the empirical studies to find prosodic markers in humor in a language other than English in Portuguese and Japanese. The study was conducted by employing Praat to analyze spontaneous, humorous speech in Portuguese. The study made a comparison between different acoustic features of humorous utterances, e.g., laughter and non-humorous utterances by the same speakers. The study's initial hypothesis, validated through analysis, posited that speakers would not explicitly signal the presence of humor due to their shared affiliation with the same fraternity. Instead, speakers employed humor to reinforce contextual nuances, thereby making the humor less accessible to outsiders. Notably, this study stands as the sole empirical exploration of prosodic humor markers in Portuguese. The main parameters of analysis were the laughter elicited and the identification of limitations the
humor poses. In contrast to what the authors have mentioned (p. 251), laughter that does not follow humor does not indicate failed humor. (Bell, 2009, 2015).

Kadooka (2012) used Praat, the software, to analyze the prosodic features in the Japanese language. The author calls the prosodic features “punch line para-tones” (Kadooka, 2012, p. 204) in authentic Kobanashi stories. The main features studied were pitch, pauses, and speech rate. The outcomes of the study verified only partially the punch line para-tones model proposed by the author. However, the methods used by the author were too indistinct to evaluate the outcomes.

In Buján's (2020) study, a comprehensive prosodic analysis of non-scripted humorous utterances is presented. The main investigation of this study was the extraction of humorous utterances from a dataset consisting of 14 interviews conducted on The Late Show with Stephen Colbert. The non-humorous utterances were also included in the investigation to facilitate a thorough examination. To import the audio files and extract key acoustic features, the researchers used Praat for each utterance, specifically mean pitch and mean intensity values. In conclusion, the study found no significant prosodic contrast between humorous and non-humorous utterances within the sample, particularly in relation to intensity and pitch (F0). This finding contributes to the understanding of the prosodic elements in non-scripted humorous communication. Top of Form Natural Language Generation (NLG) plays a pivotal role in the creation of dynamic and humorous content in human-robot interactions (Ritschel et al., 2020). As social robots are often embodied, they possess the capacity for expressive modalities that complement verbal communication. Recent efforts have been made to synchronize nonverbal and paralinguistic behaviors with conversational humor. Ritschel et al. (2020) introduced an approach that enables the transformation of text-based punning riddles, generated dynamically,
into a comprehensive multimodal robot performance. This approach is structured as a rule-based system, replicating human humor markers for the robot by incorporating nonverbal and paralinguistic cues subsequent to text generation. Significantly, the presentation of both textual content and facial expressions is meticulously synchronized. With considerable variance in individual preferences and inconclusive insights surrounding humor markers in the existing literature, there is a growing interest in personalizing the robot's joke presentation. This personalization involves fine-tuning the multimodal delivery of the robot's nonverbal and paralinguistic behaviors. To this end, a socially aware reinforcement learning approach, as demonstrated in previous research, will be explored. Additionally, the incorporation of appropriate sound elements may further enhance the robot's joke presentation.

Esipova (2023), in her study on prosody, focused on the examination of jump cuts, specifically their meaning and form, within YouTube videos. The study reports findings derived from a small-scale qualitative investigation. This investigation aimed at the identification of diverse semantic and pragmatic roles played by jump cuts in YouTube videos, with comparisons made to their segmental, suprasegmental, and gestural counterparts conveying similar meanings, and analyzed how sub-ip jump cuts are prosodically integrated with the speech stream, juxtaposed against other forms of comparable cross-channel integration. The study highlighted that the incorporation of jump cuts into the speech stream draws upon established patterns of integrating segmental, suprasegmental, and gestural elements into a cohesive multi-channel signal, encompassing both meaning and form. This integration allowed jump cuts and editing, more broadly, to function synergistically within the context of multi-channel signaling within YouTube videos.

This area of humor studies related to prosodic analysis is somewhat limited to English and other languages. Because of this, more experimental and empirical
studies using acoustic measures to investigate the relationship between humor and prosody in stand-up comedy are to take place, which is why the current research has been conducted to fill this gap. Moreover, various scholars pointed out that future research should explore the relevance of multimodal clues such as pitch, pause, and volume intensity for humor marking in a conversation and other joke-telling genres. Some technological advancements have occurred recently, and according to them, a wide array of technologies and various methods are available to scholars who study humor. They allow them to record and analyze not only audio footage but also video footage and eye movements. That is how they can address the multidimensionality of discursive practices more efficiently in extension to humor research (Erickson, 2004).

The aforementioned research review helped the researchers conclude that empirical analysis of prosodic markers has not received a lot of scholarly attention. However, some inclination towards this field has been observed in the recent past. More of the prosodic examination of humor has been done chiefly on conversational and situational comedy and on amateur comedians. Similarly, most of the researchers have examined humor by using folk theories. Hence, it can be deduced that the research has created a bridge between previous and current studies by analyzing humor prosodically from different perspectives. Therefore, the setup and the punch line are two aspects that can be recognized in a joke, and prosodic acoustic cues may serve as contextualization cues for both structural elements. Thus, the following hypothesis was made: the punch lines featured higher and louder punch lines and pitch peak more than those presented in the narratives’ setup, and the punch lines followed substantial and longer pauses of 0.6 seconds.

**Research Methodology**

This research was quantitative and dealt with the application and testing of the theory. For the current study, the data was collected, analyzed, and inferred to
prove or disprove the hypotheses. This study employed statistical methods to examine verbal humor delivered with the help of different prosodic strategies in stand-up comedy acts. The research used the theory of Pickering et al. (2009) to explore the use of prosodic features to mark humor by Trevor Noah. The data source for the current study was the five episodes of stand-up comedy acts taken from Netflix. Each episode was one hour long, and the episodes are:

- **Episode -1**
  - The Day-walker
  - Date: November 5, 2009
  - Time: 1h, 17m
- **Episode -2**
  - That’s Racist
  - Release date: November 26, 2012
  - Time: 1h, 37m
- **Episode -3**
  - African American
  - Release date: July 5, 2013
  - Time: 1h, 9m
- **Episode -4**
  - Lost in Translation
- **Episode -5**
  - That’s Racist
  - Release date: November 22, 2015
  - Time: 1h, 2m
  - Afraid of the Dark
  - Release date: February 21, 2017
  - Time: 1h, 7m

The reason for choosing these episodes to extract jokes from them was that these episodes were a detailed display of Noah’s stance regarding geopolitical, cultural, and social racism through his humorous stand-up acts. The first step was to analyze the line-by-line coding of recorded data. The second step was to analyze the acoustic features in light of Praat (6.1), followed by a semiformal procedure to locate the punch lines in the text as proposed by Hockett (1973). According to Hockett (1960), the internal structure has three components: built-up, pivot, and punch line. The given example was taken from the transcribed data from Trever Noah’s stand-up comedy act as a sample explanation:

**Built-up:** That was the worst time ever flying into America as an African during
the Ebola crisis. It was the craziest thing I've ever seen in an airport. They'd usher everybody into a special quarantine area and ask you questions.

**Pivot:** Sir, have you been in contact with Ebola?

**Punch line:** “YES! And next stop, Disney World”.

The above-mentioned joke carried some constructions of narratives, as characterized by Labov (1972). There was an existence of an oriented and compiled unit that was characterized by the build-up and presence of resolution represented by the punch line. In stand-up comedy, the comedian delivers multiple punch lines in one joke, and sometimes a cluster of punch lines has also been marked in one humorous discourse, which supported the study’s decision to use Hockett’s theory as it was not limited to single-line jokes and was highly appropriate to systematically separate the setup and punch lines from the humorous utterances to identify multiple punch lines in a single joke. The study looked at the data, which comprised fifty jokes extracted from the transcribed corpus. The analysis and identification of the jokes allowed for the investigation of the correlation between the prosodic features of the discourse and the text's structure. Also, the incongruous and sudden nature of the punch line permitted predictions about the prosodic features used by the speaker in his performance. The prosodic features investigated in this study were pitch maxima, volume maxima, and pause length. The pause length was analyzed between one-liner jokes where the setup and punch line occurred together.

The current study used instrumental measurements of pitch, volume, and pause in the computer software Praat (6.2). Praat is free software that is available online for speech analysis in phonetics. To reach the component of validity, the progression of data collection and data analysis was done by investigating and trailing the changes that took place in the data over time. This structured way adopted to analyze the data helped to make the findings
reliable, and by considering these results, their validity has been ensured.

1. **Pitch** is the fundamental frequency (F0) of sound waves. Praat arrives at the pitch by calculating the rate at which the vocal folds vibrate to produce a certain sound. In Praat, pitch height is measured in hertz (Hz), even though it calculates pitch variations in semitones, which comes in handy when aiming for substantial results. One subtracts the pitch of syllable one from the pitch of syllable 2 to measure the pitch difference. If the result is positive, the second syllable is of higher pitch (F0).

2. **Volume Root Means Square (RMS) Value** amplitude of the signal is the listing of intensity in Praat, which can be related to the perceptual construct of "loudness." Intensity is measured in decibels (dB). Mostly, vowels in stressed syllables have a higher intensity than vowels in unstressed syllables. One deducts the intensity of syllable one from the intensity of syllable two to measure the intensity difference. If the second syllable is of higher intensity, it indicates a positive result. Semitones (pitch) and decibels (intensity) are known as logarithmic units of measurement. In order to receive more reliable results, seconds should be divided as a measure of syllable duration.

3. **Pauses** The number of filled pauses, i.e., duration of silent pauses, mean syllable duration, and the number of silent pauses are measurable in Praat, although these features demand different amounts of manual work. The mean syllable duration could be automatically calculated, but there is a need to mark the syllable beginning and endpoints manually. Similarly, for filled pauses, silent pauses, corrections, and repetitions, there is a need to mark these by using a cursor. Once these are all marked, counting or finding their mean durations is lucid.

To investigate the characteristics of the data, a non-parametric test was used. The non-parametric test was applied to compare two data sets (i.e., setup and punch line). For this purpose, the
Wilcoxon signed-rank test was performed to test the distribution of two data points if they differed. A cluster sampling technique was used further to compress the data into 50. The reason for this sampling was to find the critical value of the data, which can only be obtained if the sample size is between 20 and 50 numbers. According to Pickering et al. (2009), the “classical” test of location was defined for observation of normal distribution, this test provided a valuable nonparametric alternative.

**Findings and Analysis**

**Pitch Analysis**

Figure 1 shows the average of the highest pitch measured in 50 sample jokes, in which the setup pitch measured indicated the average height of high pitch values found in the intonational phrases that comprised each text's setup portion.

**Figure 1**

*Pitch Measurement Analysis for Setup and Punch Line*

Carrying out Wilcoxon’s analysis of the given sample data brought to light that, from the two-tailed hypothesis, the null hypothesis was selected as per the obtained test statistics values for pitch values (563). So, for the given situation,
the statement “There was no significant difference between the delivery of setup and punch line by a professional comedian in terms of its pitch” was observed in the given sample data. After analyzing the test statistics in comparison with the critical value (434), gained from Wilcoxon’s table, it was imperative to accept the null hypothesis (434<563). The difference was also identified to be only 12.30078 pitch peaks, which did not significantly differ by seeing the average results. Punch line 527.61 measures showed the selected intonational phrases' pitch maxima containing the punch line, which was observed to be the highest value among both setup and punch line pitch measures. A comparison of the pitch measurements in the setup and at the punch line of jokes showed that the punch line peaks were highest at some points, whereas there was no significant difference in their pitch measurements. Moreover, Pickering’s findings regarding punch lines were also delivered with a relatively lower pitch.

**Volume Analysis**

Figure 2 shows the extent of the average volume limit by displaying the measurements of setup volume with the measurement of punch line volume in 50 sample jokes.

**Figure 2**

*Volume Ranges of the Setup and Punch Line*
After performing Wilcoxon’s analysis for volume on the given sample data, it was shown that from the two-tailed hypothesis, the null hypothesis was chosen according to the obtained test statistics (603). So, for the given situation, the selected statement was “There was no significant difference in the delivery of setup and punch line by a professional comedian in terms of its volume intensity” in the given data set. After analyzing the test statistics in comparison with the critical value (434), gained from Wilcoxon’s table, it was concluded that the null hypothesis (434<603) was accepted. This was supported by the observations and the average analysis of both volumes, and the difference observed between them was not significant enough to be observed or highlighted (0.00842 dB). The results showed that punch lines were produced at a slightly higher amplitude, with an average maximum limit of 77.02698 dB. However, the difference was not statistically significant and therefore, it can be concluded that the evidence in the samples supported the null hypothesis that there was no significant difference in the volume of setup and punch lines delivered. The graphical representation of the observed volume ranges can be seen in figure 2.

**Pause Analysis**

For analyzing the pause length in Trever Noah's narratives, one-liner jokes were taken in which the setup and punch line occurred together. Pause length was calculated by selecting the silent stretches that occurred after the delivery of the setup and before the punch line in Praat.
Table 1

Pauses (in seconds) Between Setup and Punch Line

<table>
<thead>
<tr>
<th>Jokes</th>
<th>Transcription of the Setup and Punch line carrying Pause length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>That's why we voted for Brexit because we want Britain back! /2:01/ From who? Britain is, like, 95% white. Who do you want it back from?</td>
</tr>
<tr>
<td>2</td>
<td>These bloody immigrants come over here /2.60/ That sounds British to me.</td>
</tr>
<tr>
<td>3</td>
<td>&quot;Hey, we're the British. Follow us.&quot;/1.90/ It's basically ancient Twitter, that's what that was.</td>
</tr>
<tr>
<td>4</td>
<td>You don't ever hear stories of Caribbean conquerors. /2.16/ Yeah, there are no stories of, like, Troy the Terrible from Trinidad.</td>
</tr>
<tr>
<td>5</td>
<td>&quot;Well, my good man, I am here to tell you that India is now under the British Empire.&quot;/5.35/&quot;And I'm glad that I can tell you that India is exactly where it was yesterday.&quot;</td>
</tr>
<tr>
<td>6</td>
<td>it would be particularly difficult... to be a spy. /6.16/ when you are the only... a black person in town. Your very existence defies your purpose.</td>
</tr>
<tr>
<td>7</td>
<td>Now that's pale in comparison to what you've done with pounds. That's for me. /1.55/ Please explain to me how the abbreviation for pounds became lbs.</td>
</tr>
<tr>
<td>8</td>
<td>You do realize that the imperial system is so inefficient that even American drug dealers have switched over to metric. /1.029/ Even drug dealers got to the point where they say we need some order. Ridicule</td>
</tr>
<tr>
<td>Page</td>
<td>Text</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>9</td>
<td>We're going with metric. The Ku Klux Klan. Parts of it that say this is horrible because they got that, as you know, from ancient Greece was Ku Klux alfian. meaning “a circle of brothers.” /0.76/ One, if your sole purpose as an organization is to hate black people, would you find it strange that you've now named yourself the Circle of Brothers.</td>
</tr>
<tr>
<td>10</td>
<td>- And then he won and all of a sudden, they were like, /0.14/ my nigga</td>
</tr>
<tr>
<td>11</td>
<td>Coolest thing of all is the talk I've listened to black Americans and it's the most amazing use of the English language I ever come across in my life. /1.30/ They pay no regard to punctuation</td>
</tr>
<tr>
<td>12</td>
<td>So, one guy came up to me, we made it. And now that we are here, our kind and we've got to stick together man, /5.64/ Our kind. 18 hours of flying and I still wasn't black. I Was Puerto Rican.</td>
</tr>
<tr>
<td>13</td>
<td>Walking around the streets of Miami and S-You don't speak Spanish? No, no. I don't think /0.67/ you should be ashamed of yourself.</td>
</tr>
<tr>
<td>14</td>
<td>This next comedian is from Africa. /0.47/ People think a guy in leopard skin will come running on the stage.</td>
</tr>
<tr>
<td>15</td>
<td>As an American, don't know much about Africa as a whole, /1.58/ - but you don't know much about anything.</td>
</tr>
<tr>
<td>16</td>
<td>now have to say Native American. Which is redundant, is it not? Because if somebody is a native of the land, they're still in. /1.65/ Should you not then just call them American?</td>
</tr>
<tr>
<td>17</td>
<td>As America walks fast, like mad because like, what was that? Iran. You</td>
</tr>
<tr>
<td>Page</td>
<td>Text</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>18</td>
<td>Americans will remember. Americans will go back to find this statistic. /0.12/ - The last time a black man scored using his left hand jumping over a mixed race, half ended in 1967 when the watts.</td>
</tr>
<tr>
<td>19</td>
<td>As Americans, you don't feel the pain, but as a foreigner, it's a whole different game. /0.82/ Some Americans, you walk through to the US citizens line and they welcome you back like you want some secret missions. Welcome home, sir.</td>
</tr>
</tbody>
</table>
| 20   | - I open a bank account  
I got to Section one when filling out the forms, you have to fill out your race, the box. This is your race. And there's this white. Black. Hispanic. Asian. I've never been given that option before.  
S- I looked at the boxes. I mean, there was black. That's the reason I came. The black box was there. I go. I'm. That's it. Choose it. /0.80/ But then...then I looked to the left and there was the white box. Oh, it looks good. |
<p>| 21   | But if I'm driving on the freeway behind an Asian person and they are swerving around and I go, there's bad driver, you drive like crap, I pull up next to them. Oh, no, sir. /1.09/ - And on a bad driver, you're just Asian. I'm sorry. Racism in itself matters. |
| 22   | That's what makes this fun phrase /1.44/ you can't catch me. Ha! And then you run. Now, police no longer want to chase |
| 23   | Now, was Africans being pulled aside? Africans waiting /0.35/ Middle Easterners were cruising through security. |
| 24   | Charlie Hebdo attack in Paris. That attack happened, and almost the next day, /0.71/ Ebola wasn't a thing anymore. Middle Eastern were back in the |
| 25 | Everyone said they were terrorists. It was weird to me because we didn't know that they were terrorists. We just knew that they were Middle Eastern. But immediately we went to terrorists because if you are Middle Eastern, that's a terrorist. |
| 26 | Now, I'm not saying all Muslims are terrorists, but all terrorists are Muslims. |
| 27 | You go to England 20 years ago and you said what a terrorist was? They show you a drunk Irishman I don't need to say drunk. I could have just said, Irish. |
| 28 | I mean, because why would you forgo all that privilege? Why would you? I mean, he was a young white man. [30:18] Why would you throw that all away if he was a minority? |
| 29 | You looked petrified. I said I am of the flavor. I love chicken, I love chicken so much. Ohhh is there, is there a black thing? (Referring to the scream ahhh) So that's racist |
| 30 | you know, America getting their first black president. “South Africa getting “our” black president.” |
| 31 | And then the press started interviewing Caster (Semenya) about her sexuality. Is she a man, is she a woman and a Castor? Hermaphrodite, There’s no such thing. Can’t you see? He is a woman |
| 32 | When a French person says it's sexy, it has the genetic wow. When there’s a black guy will say the same thing and will judge them. |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>This guy looked at me even more confused than he was. Excuse me, brother. Why are you talking funny? I guess I'm just different cause you those banana types. The what. Those banana type, that was yellow on the outside. But you are white on the inside.</td>
</tr>
<tr>
<td>34</td>
<td>I learned so I learned from the white side of my family. That's why people hate to be embarrassed in public, hated, hated more than anything. They fear it's in fact. Why do people fear it so much that they've developed the ventriloquist technique? You hear the words, but you don't see where they coming from.</td>
</tr>
<tr>
<td>35</td>
<td>I learned in my family, that black people couldn't give a damn. They would go wild, they would fight anywhere they needed to</td>
</tr>
<tr>
<td>36</td>
<td>And there were Black kids watching. Wow. Did you see it? the way he stood up to the authorities? If only we had him during our apartheid.</td>
</tr>
<tr>
<td>37</td>
<td>one day she said something that shocked everyone, she was like, keep quiet. I Carried on talking. I said, keep quiet. I Carried on. Shut up. You know, while you are talking in class making noise. Did you know that in the year 2000, one in every five people in this country will have died from AIDS?</td>
</tr>
<tr>
<td>38</td>
<td>When first time I was leaving, I was going to the United States, My friends threw a huge party for me, they were like, Trevor You're going to be black.</td>
</tr>
<tr>
<td>39</td>
<td>Everything's bigger in America. And I saw a pharmacy there called CBS, the biggest pharmacy I've ever seen in my entire life I mean, we've got AIDS and this comes only with one floor.</td>
</tr>
<tr>
<td>40</td>
<td>You've got to come twice. You got to give him time. Precise Swiss. That's the Swiss half of me. You know, that's why I love watches. That's why I love time.</td>
</tr>
</tbody>
</table>
And then because of the other half, I'm never on time.

You know, just have this thing ever since she hit me.... Oh. Which is normal.

Grandmothers were responsible in African families for beating the children

America and you know the word kafir don’t exist. That doesn't mean anything to those people. You say nigger and they get really offended, nigga. What?

Figure 3 shows that the shortest pause calculated in a joke was 0.12 seconds in length. In jokes: 5, 6, 12, 32, 39, the pause length was between 3.39 to 6.13 seconds, which was considered a topical pause length.

So, the range of pause length in the current data was between 0.12 to 6.13 seconds. Out of the forty-two jokes, the punch lines of nine jokes were delivered on a scale of 0.6 to 0.8 seconds in pause length, which Pickering considered a
substantial pause. There were five jokes in which the pause length was less than 0.6 seconds, and those were in the range of 0.12 to 0.52 seconds. Of forty-two jokes, only twenty-two were within the range and length of a pause from 1.0 to 2.60 seconds, which was the average of total jokes.

A pause occurred before the punch line, which is defined as a rhetorical pause in literature. A rhetorical pause is a natural pause that is unmarked by punctuation and comes before and between phrases. Pickering et al. (2009) operationalized this type of rhetorical pause as a substantial pause, for instance, that has a length between 0.6 to 0.8 seconds. A short pause can also be considered substantial if it is compared to further short pauses. Therefore, a hypothetical teller could mark a punch line with a relatively longer pause than his or her normal pause length (Pickering 2009). According to a taxonomy of pauses proposed by Brown, Currie, and Kenworthy (1980), very short pauses are in the range of 0.2 to 0.4 seconds, short pauses are in the range of 0.4 to 0.6 seconds, substantial pauses are 0.6 to 0.8 seconds, and topical pauses are greater than 0.8 seconds. The current study considered this taxonomy of pauses and discussed the findings accordingly.

Hence, it was concluded that the hypothesis about the delivery of the punch lines that a significant pause precedes was proved to be accurate. In fact, 75% of the punch lines were delivered with a topical pause length. So, the pause can be the marker of humor in the jokes, as predicted by thefolk theory of joke-telling, defined in Hockett (1973).

**Discussion**

The study discovered that Noah used various prosodic patterns with different variations. For instance, he delivered the punch lines most of the time with a relatively lower pitch and a lower volume rate. Punch lines were not carried out with significant differences from the setup of the jokes in terms of their prosodic features, and therefore, the hypothesis about the pitch and volume differences was disapproved.
The pause was also a part of the analysis, but it supported the hypothesis and proved that there was a significant pause before the punch line's delivery. This criterion of substantial pause was fulfilled, whereas the topical pause was more frequently observed in the jokes. Therefore, the hypothesis that Trever Noah marked a substantial pause before the delivery of the punch line proved to be true. The idea of marking substantial pauses before the punch line came from the folk theory, which was further mentioned by Attardo and Pickering (2011). If this is true, then professional comedians may present a significantly different result in the case of pause structure than amateurs. Thus, the data also proved this assumption, in the case of professional comedian Trever Noah, to be true and contributed to the existing knowledge. However, a combination of results had also been observed. The hypothesis regarding pitch and volume delivery was disapproved, and a similar one was found to be true in the case of pause. Although the punch line pitch was higher than the setup, the difference was not statistically significant.

The findings of the present project were quite significant, as this methodology could be applied to different samples and data in verbal humor research, particularly in stand-up comedy acoustically. The study could be conducted to compare the verbal humor of comedians belonging to different cultures or genders. Furthermore, research might be conducted to analyze other paralinguistic markers of humor, such as the use of laughter and smiles during the delivery of jokes in different Pakistani sitcoms and stand-up comedy, to expand the scope of the studies on humor's. Another significant aspect of this study was that it contributed to a research schema concerning narrative forms of jokes based on instrumental prosodic analysis. This information compares a set of texts to find differences in the conceptualization of information and its prosodic correlates. This study's framework developed an understanding of how a stand-up
comedian differs from amateurs while uttering humorous narratives. Academically, the framework could further be utilized to study humorous narratives in the Pakistani context. The study might help develop an understanding of prosodic techniques using any analytical tool and the stylistic role of humor in stand-up comedy. From a technological perspective, prosodic patterns could be helpful in speech recognition and artificial intelligence systems. This work might also be significant for speech-makers and listeners alike. It could elaborate on the impact produced on the audience when specific patterns of the narrative are uttered.

**Conclusions**

The study proved and expanded the knowledge that professional comedians mark punch lines prosodically differently than amateur comedians (taken for analysis by Pickering) in terms of pause structure. Since the study involved a small sample (one comedian) and size (five episodes, one hour each), which was very small, its results could not be generalized and depict the holistic scenario of humor used by comedians in stand-up acts. Thus, the research aimed to contribute prolific information on the dimension of humor used in stand-up comedy.

**References**


Esipova, M. (2023). Discontinuity as Prosody: Meaning and Form of Jump Cuts on YouTube


Manwell, C. F. (2018). Stand-up comedy as a tool for social change. [https://lsa.umich.edu/content/dam/englisshassets/migrated/honors_files/Manwell%20Colleen-Stand-Up%20Comedy](https://lsa.umich.edu/content/dam/englisshassets/migrated/honors_files/Manwell%20Colleen-Stand-Up%20Comedy)


