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## **FROM BRUCE WAYNE TO BATMAN: UTILIZATION OF VOICE IN CHARACTER PORTRAYAL<sup>3</sup>**

The purpose of the current research was to examine how prosodic features of an actor's voice vary as a function of depicting two different identities of the famous comic book superhero – Batman. Given that each characterization is unique, we decided to observe the performance of three actors: Michael Keaton in *Batman* (directed by Tim Burton, 1989), Val Kilmer in *Batman Forever* (directed by Joel Schumacher, 1995) and Christian Bale in *Batman Begins* (directed by Christopher Nolan, 2005). Among the analyzed prosodic parameters were: pitch, intensity, tempo and pauses, which are fundamental to the perception of emotion and other speaker-specific characteristics of speech. Certain tendencies can be observed. Namely, it is evident that the embodiment of Batman/Bruce Wayne persona resulted in actors altering prosodic parameters of their speech. This was particularly evident in the lower  $F_0$  values, less frequent and shorter pauses, and an increase in intensity during the actors' vocal embodiment of Batman. Although variations in speech tempo were also noted, this particular parameter proved to be actor-specific. That is, the tendency to speak at a slower tempo when enacting the role of Batman was observed for two actors. Consequently, no general tendencies could be derived with regard to this prosodic feature. Overall, the results are quite illustrative of different vocal techniques actors employ when depicting the duality of the character. However, the concluding segment of the paper underlines the fact that, fundamentally, there are no vocal cues that could be regarded as being restricted to righteous speech, since the dichotomy between superheroes and villains is reflected primarily in their actions, rather than the prosodic properties of their voice.

*Keywords:* righteous speech, movie superhero, Bruce Wayne, Batman, vocal performance, prosody

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## 1. Introduction

Since the introduction of Batman in the 1939's *Detective Comics* #27 (Boichel 1991: 4), the character's appeal has grown far beyond the comic book realm, resulting in the emergence of a symbol which has lasted for over eight decades now. Aside from the long-lasting presence in comic books, the character's screen history has also reached an unprecedented level, with Batman being the most frequently portrayed comic book character on the big screen (Langley 2012: 6). Arguably, this profound effect could be attributed to a rather compelling origin story and the complex nature of the superhero. According to the character's creators Bob Kane and Bill Finger, two movies, in particular, served as the inspiration for Batman – *The Mask of Zorro* (1920) and *The Bat Whispers* (1930). These two movies essentially gave rise to what is considered to be the defining trait of the character – the Bruce Wayne/Batman duality (Boichel 1991: 6). The origin story, first recounted in *Detective* #33 (1939), and later restaged in *Batman* #1 (1940) (Uricchio, Pearson 1991: 194), explains the circumstances surrounding Bruce Wayne's adoption of the Batman alter ego<sup>4</sup> (Boichel 1991: 7). Namely, after witnessing his parents' murder at the hands of a nameless thief, the young Bruce Wayne decides to dedicate his life to fighting crime and this particular moment marks the creation of the Batman persona (Uricchio, Pearson 1991: 194). The dual identity, which originated in the comics, shaped the subsequent on-screen representations of the superhero. The cinematic portrayals were particularly successful with regard to the external characterization, which surpassed the mere physical disguise by incorporating another key element – the actors' ability to portray different aspects of the character by means of their voice.

According to Stanislavski (1989: 3, 85), the preparatory work on a role entails three parts, one of them being the embodiment of the role, i.e. putting the role into its physical form. During this process of physical embodiment, actors use everything at their disposal (words, gestures, voice, posture, facial expressions, etc.) in order to convey the inner aspects of their character (ibid. 95). Although studies pertaining exclusively to vocal embodiment of characters are rare, much of the research on vocal portrayal of emotions in general is done with actors enacting those emotions (Kienast, Sendlmeier 2000; Klasmeyer, Sendlmeier 2000; Paeschke et al. 1999). In fact, it has been argued that around 87% of studies on affective vocalizations employ actors as research subjects (Juslin, Laukka 2003, in Berry, Brown 2019: 1408). This is probably due to the commonly held position that an actor's primary task is to portray the emotions of their character (Konijn 2000, in Berry, Brown 2019: 1408). It is also widely accepted that emotional states have a direct impact on voice (Kappas et al. 1991; Lee, Narayanan 2005; Klasmeyer, Sendlmeier 2000; Paeschke et al. 1999), since different articulatory behavior accompanies different degrees of emotional arousal (Kienast, Sendlmeier 2000: 92). Some of the most commonly

4 According to some scholars, the opposite is true, i.e. Bruce Wayne is regarded as the secret identity, or the alter ego of Batman (Uricchio, Pearson 1991: 183; Ananth, Dixon 2008: 101).

researched cues in studies on character portrayal conducted to date are: pitch, intensity, timbre, speech rate, and pauses (Berry, Brown 2019; Milligan 2015). The same parameters have repeatedly been examined in studies on vocal indicators of different emotional states<sup>5</sup> (Kappas et al. 1991: 211–212), or rather, studies on five basic emotions – *fear*, *anger*, *happiness*, *disgust* and *sadness* (Ekman 1992: 551–552). The results of such studies are quite uniform, in the sense that certain general tendencies can be observed. In particular, the findings suggest that, in relation to neutral speech, vocal expressions of *anger* and *happiness* are frequently characterized by an increase in mean intensity, an increase in mean  $F_0$ , faster speaking rate and a small proportion of pauses (specific to anger) (Klasmeyer, Sendlmeier 2000: 354–355; Kappas et al. 1991: 214–216; Paeschke et al. 1999: 929; Berry, Brown 2019: 1408; Kienast, Sendlmeier 2000: 96). Conversely, *sadness* is marked by a decrease in the mean intensity and mean  $F_0$ , the speech rate is slow as a consequence of the low muscular tension, which results from the low arousal level, and there is a notable increase in pause intervals (Klasmeyer, Sendlmeier 2000: 355; Kienast, Sendlmeier 2000: 96; Kappas et al. 1991: 214; DePaulo et al. 2003: 75; Berry, Brown 2019: 1408). *Fear* is characterized by the fastest speaking rate, compared to other emotions mentioned here, and there is typically an increase in  $F_0$  and mean intensity. Also evident is the frequent use of pauses, regular occurrence of speech errors and a fairly frequent use of indirect speech (Kienast, Sendlmeier 2000: 96; Kappas et al. 1991: 215; DePaulo et al. 2003: 75). When it comes to *disgust*, there have been some reports (e.g. Paeschke et al. 1999: 930) noting an increase in the mean  $F_0$ . However, generally speaking, the results for this particular emotion have, so far, been inconclusive, since there are studies (e.g. Kappas et al. 1991: 215) that suggest otherwise, i.e. studies that report a decrease in the mean  $F_0$ . Also, the low recognition rates in most studies (below the commonly implemented threshold of 80%) for this particular emotion have precluded a detailed acoustic analysis (Klasmeyer, Sendlmeier 2000: 351). Studies have also shown that humans are endowed with a remarkable capacity for voluntary vocal control, which is a prerequisite of speech, and functions as a signal for motivations and emotions (Leongómez et al. 2021: 1–2). This voluntary vocal control, or vocal modulation, is observed both in verbal and nonverbal communication (such as laughter, painful cries, roars of aggression, etc.) (ibid.). It is a powerful tool actors have on hand, provided, of course, that their voice is properly trained (Stanislavski 1977: 8), since without the convincing vocal portrayal, the actor's

5 Emotions are frequently conceptualized along two dimensions: *valence* and *arousal* (Lang et al. 2003, in Van Volkinburg, Balsam 2014: 360). *Valence* refers to the degree to which an emotion can be characterized as (un)pleasant, whereas *arousal* refers to the level of physiological activation (such as heart rate, skin conductance, startle response, etc.) (Bradley et al. 2001, in Van Volkinburg, Balsam 2014: 360). When placed on this two-dimensional scale, emotions like *happiness*, for instance, can be characterized as moderately-arousing and positive-valenced, while *excitement*, for example, is a high-arousal and positive-valenced emotion. Conversely, *anger* is a high-arousal and negative-valenced emotion. The same is true for *sadness*, i.e. it is a negative-valenced emotion, commonly described as being moderately-arousing (Van Volkinburg, Balsam 2014: 360).

performance would sound unnatural and it would lose its credibility (Scherer 2003: 232–233).

## 2. Methodology

*Research Goal and Hypothesis.* As indicated previously, successful character depiction is, to a great extent, dependent on the actor's ability to vocally embody their character. Although there have been conscious attempts on the part of actors who have played the comic book superhero to drop their voice during the portrayal of Batman, their voice has often been characterized in purely subjective terms, i.e. Batman's voice was usually described as simply being harsh or gruff. The goal of the current research is to observe the objective acoustic parameters that mark the speech of actors when enacting the role of Batman as opposed to Bruce Wayne. This might give us a better insight into the specific prosodic cues that contribute to a voice being perceived as gruff, as opposed to the one which is not perceived as such.

*Research Sample.* Different actors generally have unique perspectives on the role they play. Consequently, they might apply various techniques (including those related to voice) so as to convey the inner aspects of their character to the audience (Stanislavski 1977). For this reason, we decided to observe the performance of not just one, but three actors embodying the role of Batman, i.e. Bruce Wayne: Michael Keaton in *Batman* (directed by Tim Burton, 1989), Val Kilmer in *Batman Forever* (directed by Joel Schumacher, 1995) and Christian Bale in *Batman Begins* (directed by Christopher Nolan, 2005). Vocal performances of these three actors were chosen for the analysis since they reflected the actors' natural voices, as well as their effort to change it when depicting Batman. Conversely, voices of other actors, in the subsequent on-screen portrayals, were heavily altered in post-production and were thus not considered for the purpose of the present research. Six recordings per actor were analyzed (18 recordings in total). It is useful to note that, due to the differences in characterization, mentioned in the earlier segment of this paper, the actors' portrayals of Bruce Wayne and Batman were observed separately. For each actor, three audio files were related to the scenes where the actor played the role of Batman, while the remaining three recordings pertained to the actor's portrayal of Bruce Wayne. When selecting the specific lines for the analysis, we prioritized segments that constituted a small narrative (segments that were at least three sentences long). The transcripts of the analyzed recordings are included in the *Appendix*.

*Analyzed Parameters.* We decided to measure those parameters that are generally regarded as being fundamental to the perception of emotion and other speaker-specific characteristics of speech. Namely, those parameters were: pitch, intensity, speech tempo, and pauses. *Pitch* is a prosodic feature which is essentially dependent on the speed of the vocal cord vibration (Cruttenden 1997; Ladefoged 2003). The acoustic correlate of pitch is fundamental frequency ( $F_0$ ) which, for speech, is typically below 500 Hz. For

male speakers,  $F_0$  ranges from 60 Hz to 240 Hz<sup>6</sup>, with the general mean of 120 Hz (Cruttenden 1997: 3). *Intensity* is another prosodic feature, related to the amount of energy present in a sound, or sequence of sounds. It is expressed in decibels [dB], and its perceptual correlate is loudness (ibid. 3). Intensity of 40 dB, for instance, characterizes very quiet speech, while the intensity of 70 dB characterizes normal speech (Clark, Yallop 1995: 234). *Speech tempo* corresponds to syllable rate (Plug, Smith 2018: 279), and is calculated as the number of syllables per second (Cruttenden 1997: 173–174). Jacewicz et al. (2009: 234) argue that the terms *speech rate*, *speaking rate* or *articulation rate* are frequently used synonymously when referring to speech tempo. However, the authors (ibid.) suggest that the consensus nowadays is that speaking rate includes pause intervals, while speech articulation does not. This position is shared by other scholars who note that both speech rate and articulation rate are defined as “the number of syllables per time unit”, the only difference being the pause inclusion (Kappas et al. 1991: 212; Kirchhübel 2013: 64; Anolli, Ciceri 1997: 266). Jacewicz et al. (ibid. 235) further note that speaking rate “takes into account more speaker-specific ways of conveying information, such as hesitations, pausing, emotional expressions and so on”, which is why we opted for the analysis of this particular temporal feature. According to Stanislavski (1977: 127–140), actors generally make use of two types of *pauses*—logical pauses and psychological pauses. Logical pauses combine words into groups, i.e. speech measures, and are essential for speech intelligibility. On the other hand, psychological pauses convey the subtextual content of words. Their length is rather subjective, since it correlates with the underlying purpose of an action and, oftentimes, they take up entire scenes (ibid. 140). As vocal cues, pauses are analyzed in terms of their frequency and duration (Kirchhübel 2013: 64; Kappas et al. 1991: 212). Authors like Kirchhübel (2013: 136) argue that there is no agreement among scholars regarding the minimum duration necessary for a silent period to be classified as a pause. Nevertheless, the author (ibid.) proposes the threshold of 100 ms, which was used for the purpose of the current analysis. Both frequency and duration of pauses were examined in the present research. Distinction was not made as to the type of pause (psychological or logical). Rather, any inter-word or inter-phrase silent period which was at least 100 ms long was counted as a pause. Moreover, filled pauses (where the silent period is filled with the central vowel /ə/, bilabial nasal /m/, or a combination of the two /əm/)<sup>7</sup> (Cruttenden 1997: 30) were also taken into account, as suggested by the relevant literature.

*Data Analysis.* Prior to the analysis, the recordings were edited in *Audacity* (version 3.2.3), i.e. the background noise was removed from the audio files.

6 General  $F_0$  range for adult male English speakers suggested by Clark and Yallop (1995: 240) is 80–200 Hz.

7 It is worthwhile to note that this particular type of a filled pause (realized as /ə/, /əm/ or /m/) is typical of English. Other languages would most likely exhibit different realizations, since this phenomenon is somewhat language-specific (Cruttenden 1997).

The acoustic analysis was performed using the speech analysis software *Praat* (version 6.2.13) (Boersma, Weenink 2022), while descriptive and inferential statistics were generated in the *R* statistical software (version 4.2.1).

### 3. Research Results

We will first turn to the results of the acoustic measurements related to the mean fundamental frequency, fundamental frequency range, and mean intensity of the actors’ voices when embodying the identity of Bruce Wayne, i.e. Batman. *Table 1* provides an overview of those results.

*Table 1. Fundamental Frequency and Intensity*

| Character   | Line | F <sub>0</sub> [Hz] |         |       |       | Intensity [dB] |           |      |       |       |
|-------------|------|---------------------|---------|-------|-------|----------------|-----------|------|-------|-------|
|             |      | $\bar{X}$           | range   | SD    | t     | p              | $\bar{X}$ | SD   | t     | p     |
| Bruce Wayne | MK1  | 88                  | 75–135  | 7.08  | 2.968 | 0.003          | 50        | 2.31 | 2.891 | 0.005 |
|             | MK2  | 105                 | 70–178  | 29.33 |       |                | 50        | 4.54 |       |       |
|             | MK3  | 102                 | 77–174  | 25.73 |       |                | 52        | 5.80 |       |       |
|             | VK1  | 98                  | 71–129  | 16.57 |       |                | 60        | 4.43 |       |       |
|             | VK2  | 82                  | 69–116  | 9.37  |       |                | 53        | 2.74 |       |       |
|             | VK3  | 96                  | 72–114  | 41.14 |       |                | 55        | 2.42 |       |       |
|             | CB1  | 90                  | 84–110  | 7.83  |       |                | 49        | 3.35 |       |       |
|             | CB2  | 80                  | 68–102  | 9.39  |       |                | 45        | 1.92 |       |       |
|             | CB3  | 134                 | 100–167 | 16.59 |       |                | 50        | 3.59 |       |       |
| Batman      | MK4  | 84                  | 67–110  | 15.18 | 2.968 | 0.003          | 60        | 1.50 | 2.891 | 0.005 |
|             | MK5  | 92                  | 76–201  | 15.79 |       |                | 50        | 5.77 |       |       |
|             | MK6  | 88                  | 73–105  | 9.23  |       |                | 51        | 1.52 |       |       |
|             | VK4  | 99                  | 82–118  | 22.32 |       |                | 59        | 6.15 |       |       |
|             | VK5  | 97                  | 67–122  | 3.56  |       |                | 65        | 1.01 |       |       |
|             | VK6  | 85                  | 70–88   | 6.73  |       |                | 58        | 1.14 |       |       |
|             | CB4  | 90                  | 75–119  | 16.56 |       |                | 46        | 2.83 |       |       |
|             | CB5  | 84                  | 67–94   | 2.61  |       |                | 51        | 1.52 |       |       |
|             | CB6  | 107                 | 78–137  | 8.90  |       |                | 51        | 2.10 |       |       |

**Note.**  $\bar{X}$  = mean value; SD = standard deviation; t = *t-test* result; p = p-value (significance level:  $\alpha = 0.05$ )

As the values presented in *Table 1* illustrate, a general decrease in F<sub>0</sub> mean was observed for all actors, which is indicative of a perceptually deeper voice actors employ in order to vocally embody the character of Batman, as opposed to Bruce Wayne. On the whole, the vocal portrayals were characterized by a wide F<sub>0</sub> range. The lowest F<sub>0</sub> mean was measured for Val Kilmer’s voice when depicting Bruce Wayne, while the highest values were measured for Christian Bale’s voice. When it comes to the actors’ portrayal of Batman, the lowest values characterized the speech of Michael Keaton, while the mean values for Christian Bale and Val Kilmer’s voice proved to be rather similar. The most notable variations in the F<sub>0</sub> mean values, when depicting the character’s dual

nature, could be observed in Michael Keaton's vocal performance. This actor, in particular, demonstrated slightly greater variations in fundamental frequency, compared to the other two actors, and essentially modulated his pitch to a greater extent. The results were again uniform in the sense that all actors exhibited a slight increase in intensity when depicting Batman. The intensity modulations were mostly evident in Val Kilmer's vocal portrayals, and were somewhat less striking for the other two actors. Both  $F_0$  and intensity differences were statistically significant.

Studies on emotion detection in speech signals typically indicate that a wide range of  $F_0$ , as well as the high speech intensity, frequently characterize negative emotions such as anger, annoyance, or aggression (Scherer 2003: 239). Arguably, the acoustic cues presented here could surely be regarded as resulting from contextual factors, such as different emotions underlying each scene. Still, when selecting the exact lines for the analysis, we deliberately avoided scenes where characters visibly exhibited high arousal emotions, i.e. scenes where emotions like anger were vocally expressed (vocal expression of anger most readily manifests itself as an increase in intensity). Instead, we opted for the lines that were more neutral in nature, or rather, lines that were not heavily marked by any particular emotion<sup>8</sup>. For this reason, we are more inclined to interpret the obtained acoustic cues as stemming from the intrinsic nature of the Batman persona, rather than being largely motivated by the aforementioned external factors. In other words, we believe that the superhero's decision to adopt a non-human image (that of a bat), so as to instill fear into his opponents, brings about the observed drop in his voice, which serves as a supplementary element to the overall characterization of the intended persona. This position can further be substantiated by the findings of several studies on vocal expressions of emotions, which predominantly report an increase, rather than a decrease, in the average  $F_0$  values for emotions such as *anger* (Paeschke et al. 1999: 929; Kappas et al. 1991: 241). Yet, this is not to say that the very nature of each scene and the specific feeling the actor is trying to portray at a given moment, have absolutely no impact on the parameters mentioned here. Characters are almost never one-dimensional, and so, a character is more likely to express a wide range of emotions throughout the course of a movie and those emotions surely depend on the general purpose of a particular scene. However, personality dimensions for both Bruce Wayne and Batman undoubtedly shape the way in which actors choose to depict these roles vocally. Specifically, the perception of the Batman persona as a frightening symbol employed in order to fight crime, and Bruce Wayne's depiction as being nostalgic and tortured by the grief for the death of his parents, can lead to actors portraying those emotions that are stereotypical for the given states. The enactment of the Batman persona would then naturally result in the more frequent depiction of emotions like *anger*, *annoyance* or *aggression*. That is, the character depiction would be

8 Although the lines we chose for the analysis were not overtly affective, we do understand that it is nearly impossible to extract speech that would, altogether, not be affected by some emotion.



more restricted to portraying the negative-valenced emotions. Conversely, the character of Bruce Wayne would presumably display a whole plethora of emotions in an attempt to depict the more human side of the superhero, as opposed to the non-human image of Batman.

The data pertaining to the speech tempo and pauses is displayed in *Table 2*.

Table 2. Speech Tempo and Pauses

| Character   | Line | Tempo    |               | Pauses |            |              |                   |
|-------------|------|----------|---------------|--------|------------|--------------|-------------------|
|             |      | syll/sec | mean syll/sec | freq.  | mean freq. | duration [s] | mean duration [s] |
| Bruce Wayne | MK1  | 6.2      | 4.03          | 2      | 9.56       | 2.2          | 1.32              |
|             | MK2  | 3.61     |               | 6      |            | 2.06         |                   |
|             | MK3  | 3.27     |               | 13     |            | 1.31         |                   |
|             | VK1  | 5        |               | 3      |            | 0.87         |                   |
|             | VK2  | 3.52     |               | 12     |            | 1.18         |                   |
|             | VK3  | 3.73     |               | 10     |            | 1.44         |                   |
|             | CB1  | 3        |               | 10     |            | 0.65         |                   |
|             | CB2  | 4.88     |               | 6      |            | 1.12         |                   |
|             | CB3  | 3.02     |               | 24     |            | 1.03         |                   |
| Batman      | MK4  | 4.29     | 3.94          | 3      | 3.33       | 0.81         | 0.89              |
|             | MK5  | 4.67     |               | 2      |            | 0.88         |                   |
|             | MK6  | 3.55     |               | 6      |            | 0.39         |                   |
|             | VK4  | 2.7      |               | 5      |            | 1.09         |                   |
|             | VK5  | 4.2      |               | 2      |            | 1.68         |                   |
|             | VK6  | 3.63     |               | 4      |            | 1.13         |                   |
|             | CB4  | 3.67     |               | 4      |            | 0.79         |                   |
|             | CB5  | 5.17     |               | 3      |            | 0.64         |                   |
|             | CB6  | 3.56     |               | 1      |            | 0.59         |                   |

The values presented in *Table 2* suggest that there are slight modulations of speech tempo. Nevertheless, set patterns could not be generalized, since the tendency to speak at a slower tempo when depicting Batman was noted for two actors. More specifically, both Michael Keaton and Val Kilmer decreased their rate of speech while portraying the role of Batman, as opposed to Christian Bale, whose depiction of the said character was marked by an increase in the average speaking rate. Generally, Michael Keaton spoke with the fastest tempo, both during his depiction of Bruce Wayne and Batman. The slowest rate of speech was noted for Christian Bale’s enactment of Bruce Wayne, while Val Kilmer’s speech proved to be the slowest when portraying the role of Batman. As suggested by the relevant literature (Jacewicz et al. 2009; Kappas et al. 1991), the present speech tempo measurements included the pause intervals. Thus, the current findings pertaining to the rate of speech should, perhaps, be discussed in relation to the observed proportion of pauses.

Much of the actor's work on external characterization focuses on mastering the use of silent intervals. The actor's vocal performance is, to a certain degree, directly impacted by the employment of logical pauses, whose frequency and duration are fundamentally dependent on particular punctuation marks. Hence, the use of a comma in a script, for instance, would naturally result in actors producing a shorter logical pause, whereas the use of a period would give rise to an altogether longer silent period. Such propensities might, in fact, be considered as universal rules, and so the frequency and the duration of a silent period are likely to be dependent on the text itself. The number of actors' lines is another factor that should be taken into consideration. Namely, it seems likely that the frequency of logical pauses would correlate closely with the number of actors' lines. An increase in this number might, in turn, exert a notable effect on the tempo measurements. Although the present analysis was based on a selected corpus of sentences, during the initial stage of the research, all dialogues featuring the superhero were transcribed. It was observed that the lines pertaining to the scenes where the actors depicted the role of Batman were overall less frequent and shorter in length (see Appendix)<sup>9</sup>. Fewer lines for Batman might have contributed to the notably higher pause frequency in the actors' portrayal of Bruce Wayne, given that such segments comprised longer stretches of speech. This can further lead to the conclusion that the less frequent pauses give rise to a faster speech tempo. Nevertheless, this theory holds true for only half of our results. More specifically, it is evident that the actors overall produced less pauses during their acoustic embodiment of Batman, yet the general speech tempo for Batman was slower, compared to that of Bruce Wayne. This is most likely due to the observed variability in the obtained results per actor. Namely, the fastest speaking rate was measured for Michael Keaton's vocal portrayal of Bruce Wayne, and his speech was simultaneously marked by the smallest proportion of pauses. Conversely, the largest proportion of pauses, as well as the slowest speech tempo, were noted for Christian Bale's depiction of the Bruce Wayne persona. Nevertheless, a closer inspection of the results concerning the acoustic embodiment of Batman, reveals that the increase in pause frequency did not invariably lead to a slower speaking rate. The exact same number of pauses was noted for both Val Kilmer and Michael Keaton's characterization of Batman, yet the speaking rate differed, in that Keaton's speech was the fastest as Batman, while Kilmer's was the slowest. This goes to show that tempo cannot be reduced solely to the number of pause intervals. Although certain segments might exhibit fewer pauses, this might be supplanted by longer duration of the less frequent pause intervals, resulting ultimately in the same state of affairs. Moreover, an actor may choose not to make a notable pause in his speech even though the text itself demands its use (as indicated by punctuation), or he may decide to make a pause when there are no objective reasons to do so, and thus produce what is referred to as a

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9 Overall, the number of words spoken by Bruce Wayne in the three movies was approximately 3.6 times greater than that of Batman.

psychological pause. In any case, an actor's ability to master the use of silent intervals is an important skill to develop, and, fundamentally, it proves to be rather subjective and heavily dependent on the inner aspect of the character.

#### **4. Concluding Remarks**

We will conclude this paper with a brief observation pertaining to the comparison of our current results and the results obtained in our previous study on the prosodic features that mark the speech of actors depicting Batman's main enemy – The Joker (Jerotijević Tišma, Janevska 2023). Such a comparison might give us a better insight into the nature of the characters, and the potential differences, or perhaps similarities, between the speech of the hero and the villain. The prior research differed slightly from the present one, in that there was one supplementary element of the analysis – the perception of evil. For the purpose of this discussion, we will outline the major parameters which were judged to be central to the villain's language. Since the research subjects in our previous study singled out Jack Nicholson's portrayal of The Joker as the most evil, the values for this actor's speech served here as the referent values. The prosodic features characterizing The Joker's speech were: mean fundamental frequency of 120 Hz, mean intensity level of 61 dB, speech rate of 2.57 syll/sec, and pause frequency of 2.75 (Jerotijević Tišma, Janevska 2023: 442–444). If we were to compare such prosodic tendencies with the general results obtained for the vocal characterization of Batman, presented in this paper, we would notice that all of the actors, whose speech we here observed, had a notably lower  $F_0$  mean. The mean intensity was also predominantly lower across actors, except for Val Kilmer, whose mean averaged 61 dB, which is identical to the value reported for Nicholson's depiction of Joker. Nevertheless, intensity would typically vary according to the actor's lines, the nature of the scene and the emotion the actor is trying to portray. In terms of the speech tempo, it was generally faster for Batman, and the pauses were also more frequent. However, both tempo and pause frequency are likely to vary according to the same factors previously outlined for intensity. The observed differences in pitch would, perhaps, more evidently reflect the contrast between the hero and the villain, although they cannot be characterized as being exclusive to either one of these character types. Namely, we could argue that the quality of both Batman and Joker's voice is, to a certain degree, integral to the characters' nature. In other words, we could perhaps associate the higher pitch and the increased intensity, both of which are typical of high-arousal and positive-valenced emotions such as *happiness*, with the depiction of The Joker as a clown-faced criminal. Similarly, we could argue that the deeper voice actors employ during their portrayal of Batman, as opposed to their enactment of Bruce Wayne, is, presumably, directly related to the intended depiction of Batman as a dark, tough, mysterious vigilante (Uricchio, Pearson 1991: 182–186). This characterization is grounded in the hero's origin story, which recounts the tragic moment that brings about the character's dark persona. Authors like Boichel (1991: 8) note that, like Batman,

the villains also tend to have their origin in a traumatic event. This is why certain publications, for instance *The Killing Joke*, describe Batman and Joker as “distorted mirror images of each other” (ibid. 16). Yet, regardless of the suggested similarity, Boichel (ibid. 8) notes that the difference between the hero and the villain lies in the fact that the trauma invariably drives the villains to madness, and leads them to a life of crime. Frank Miller, the author of one of the most prominent graphic novels *The Dark Knight Returns* (1986), suggests that what makes Batman a good character is that, unlike Joker, “Batman makes his devils work for the common good” (Sharrett 1991: 44). For this reason, categorizing characters as good or evil is frequently done with regard to the specific actions of that character, rather than their speech. Truly, it is highly debatable whether there is anything in one’s speech that could, in terms of the phonetic properties at least, point to the good or bad nature of that person. The existing studies on the link between morality and speech (Kirchhübel 2013; Kirchhübel, Howard 2011; 2012; Anolli, Ciceri 1997; Ekman et al. 1991; DePaulo et al. 1996; 2003) generally speak of speech being either *truthful* or *deceptive*. However, even those studies have been somewhat unanimous in their conclusion that, fundamentally, truth-tellers and liars cannot always be effectively differentiated on the basis of the prosodic parameters of their speech (Kirchhübel, Howard 2012: 700; Kirchhübel, Howard 2011: 1094). The same seems to apply to the speech of villains versus superheroes, in the sense that there is no clear-cut distinction between the prosodic features underlying solely the speech of either one of these character types.

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## ОД БРУСА ВЕЈНА ДО БЕТМЕНА: УПОТРЕБА ГЛАСА ПРИ КАРАКТЕРИЗАЦИЈИ ЛИКА

### Резиме

Циљ тренутног истраживања био је испитати варијације у прозодијским карактеристикама говора глумца приликом карактеризације два различита идентитета познатог стрип јунака – Бетмена. С обзиром на то да је свака карактеризација по себи јединствена, у истраживању смо се определили за анализу говора три различита глумца у улози Бетмена: Мајкла Китона у *Бетмену* (у режији Тима Бартона, 1989), Вала Килмера у филму *Бетмен заувек* (у режији Џоела Шумахера, 1995) и Кристијана Бејла у филму *Бетмен: Почетак* (у режији Кристофера Нолана, 2005). Међу анализираним прозодијским параметрима били су: висина гласа, интензитет, темпо и паузе у говору. Одабрани параметри од великог су значаја за перцепцију емотивног говора и идентификацију говорника. Опште узевши, резултати анализе указују на варијабилност сагледаних прозодијских параметара приликом карактеризације различитих идентитета филмског јунака. Конкретно, приликом карактеризације Бетмена, забележене су ниже вредности фундаменталне фреквенције, ређе и краће паузе у говору, као и виши интензитет. Иако су глумци модификовали темпо свог говора како би дочарали комплексни карактер лика, тенденција споријег говора приликом карактеризације Бетмена уочена је код двојице глумца. Резултати истраживања показују да глумци генерално примењују различите вокалне технике како би дочарали дуални карактер лика. Међутим, у закључном делу рада, истиче се да, у основи, није могуће одредити прозодијске особености језика добра, односно, параметре који карактеришу говор суперхероја у односу на зликовце. Наиме, перцепција лика као доброг или лошег зависиће преважно од његових поступака, а не од прозодијских својстава његовог гласа.

*Кључне речи:* језик добра, филмски суперхерој, Брус Вејн, Бетмен, сценски говор, прозодија

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## APPENDIX. *Transcripts*

### **Michael Keaton, *Batman*, directed by: Tim Burton, 1989.**

#### **As Bruce Wayne:**

**MK1** I just found out Jack Napier's still alive. He's running Grissom's men. I need all the information the police have on him.

**MK2** Jack Napier. Assault with a deadly weapon age 15. Results of psychological profile...violent mood swings, highly intelligent, emotionally unstable. Aptitudes include science, chemistry and art. Chemistry. Alfred, let's go shopping.

**MK3** Let me tell you about this guy I know, Jack. Mean kid. Bad seed. Hurt people. You know what the problem was? He got sloppy. You know, crazy. He started to lose it. He had a head full of bad wiring, I guess. Couldn't keep it straight up here. He was the kinda guy who...couldn't hear the train till it was... two feet from him. You know what happened to this guy, Jack?

#### **As Batman:**

**MK4** I'm not going to kill you. I want you to do me a favor. I want you to tell all your friends about me. I'm Batman.

**MK5** The police have got it wrong. They're looking for one product. The Joker's tainted hundreds of chemicals at the source.

**MK6** No. The poison only works when components are mixed. Hair spray won't do it alone. But hairspray mixed with lipstick and perfume...will be toxic, and then traceable.

### **Val Kilmer, *Batman Forever*, directed by: Joel Schumacher, 1995.**

#### **As Bruce Wayne:**

**VK1** Alfred's actually a very good mechanic, but...some of these need a lot of work. Someone were to... fix them up, they can keep one as a fee.

**VK2** My parents were murdered in front of me. I was just a kid. I don't... remember a lot of...what happened but... what I do, comes to me in my dreams, flashes. There's a new element now though, I haven't seen before. It's a red leathered book. There's something else. My...dreams are coming to me when I'm awake now.

**VK3** So, you're willing to take a life? Then, it will happen this way. You make the kill. But your pain doesn't die with Harvey, it grows. So you run out into the night to find another face, and another, and another. Until one terrible morning you wake up and you realize...that revenge has become your whole life. And you won't know why.

#### **As Batman:**

**VK4** Wait! I have a riddle for you. I see without seeing. To me, darkness is as clear as daylight. What am I?

**VK5** Aren't you forgetting something Harvey? Your coin. You're always two minds about everything.

**VK6** I had to save them both. You see, I'm both Bruce Wayne and Batman. Not because I have to be. Now...because I choose to be.

**Christian Bale, *Batman Begins*, directed by:  
Christopher Nolan, 2005.**

**As Bruce Wayne:**

**CB1** First time I stole so that I wouldn't starve. Yes, I lost many...assumptions about the simple nature of...right or wrong. And when I traveled...I learned...the fear before a crime...and the thrill of success. But I never became one of them.

**CB2** People need dramatic examples to shake them out of apathy, and I can't do that as Bruce Wayne. As a man... I'm flesh and blood, I can be ignored, I can be destroyed. But as a symbol...as a symbol, I can be incorruptible. I can be everlasting. Something...elemental, something terrifying.

**CB3** Everyone!...Everybody!...I...wanna thank you all for coming here tonight and drinking all of my booze. No, really. There's a thing about being a Wayne that... you're never short of a few freeloaders, like yourselves, to fill up your mansion with, so, here's to you people, thank you! I'm not finished. To all of you... all of you phonies, all of you two-faced friends, you sycophantic suck-ups, who smile through your teeth at me. Please, leave me in peace. Please, go. Stop smiling, it's not a joke. Please leave. The party's over, get out.

**As Batman:**

**CB4** Storm's coming. It's a start. Your partner was at the docks with Falcone. They were splitting the shipment in two. Only half went to the dealers.

**CB5** I'm gonna give you a sedative. You'll wake up back at home. When you do, get these to Gordon, and Gordon alone. Trust no one.

**CB6** Falcone sent them to kill you. You rattled his cage. Leverage. To get things moving. Someone like you...someone who'll rattle the cages.