# UDC 81'342; IRSTI 16.21.37 https://doi.org/10.47526/2025-2/2664-0686.198

# G. KUSSEPOVA<sup>®1™</sup>, G. BEISEMBAYEVA<sup>®2</sup>, L. KUSSEPOVA<sup>®3</sup>

<sup>1</sup>Lecturer of L.N. Gumilyov Eurasian National University (Kazakhstan, Astana), e-mail: kussepova\_gt\_2@enu.kz <sup>2</sup>PhD, Acting Associate Professor of L.N.Gumilyov Eurasian National University (Kazakhstan, Astana), e-mail: vip.beysembaeva@list.ru <sup>3</sup>Senior Lecturer of L.N. Gumilyov Eurasian National University (Kazakhstan, Astana), e-mail: kussepova\_lt@enu.kz

# THE INFLUENCE OF PROSODIC FEATURES ON MEMORIZATION (A STUDY BASED ON COURT SHOWS)

**Abstract.** This study aims to analyze the impact of prosodic features on participants' perception and recall of words after watching courtroom shows. Based on the results of a survey conducted among 18 respondents with a high level of English proficiency, the study investigates and analyzes the potential influence of prosodic characteristics using quantitative, acoustic, and ANOVA-based statistical analysis. The focus was on identifying the connection between prosodic features such as intonation, pitch, and accent, and their influence on the memorization of legal and neutral terms. Two fragments of popular court shows were selected - "Sudebnyi Dela" and "Divorce Court". The results showed that legal terms were more often remembered from the Russian program, which was associated with a more formal style and accented prosodic elements, while emotionally charged statements from the American show led to the memorization of phrases unrelated to legal topics, but possessing vivid prosodic characteristics. Prosodic analysis revealed that changes in pitch, accentuation and emotional coloring increase the audience's susceptibility to certain phrases. The results highlight the role of prosody in shaping the perception of legal media programs.

Keywords: legal terminology, word recall, court shows, intonation patterns, perception.

# Г. Кусепова<sup>1</sup>, Г. Бейсембаева<sup>2</sup>, Л. Кусепова<sup>3</sup>

<sup>1</sup>Л.Н. Гумилев ат. Еуразия ұлттық университетінің оқытушысы (Қазақстан, Астана қ.), e-mail: kussepova\_gt\_2@enu.kz <sup>2</sup>PhD, Л.Н. Гумилев ат. Еуразия ұлттық университетінің доценті м.а. (Қазақстан, Астана қ.), e-mail: vip.beysembaeva@list.ru <sup>3</sup>Л.Н. Гумилев ат. Еуразия ұлттық университетінің аға оқытушысы (Қазақстан, Астана қ.), e-mail: kussepova\_lt@enu.kz

# Просодикалық ерекшеліктердің тану, есте сақтау қабілетіне әсері (сот шоуларының негізіндегі зерттеу)

<sup>\*</sup> Бізге дұрыс сілтеме жасаңыз:

Kussepova G., Beisembayeva G., Kussepova L. The Influence of Prosodic Features on Memorization (a Study Based on Court Shows) // Ясауи университетінің хабаршысы. – 2025. – №2 (136). – Б. 125–143. <u>https://doi.org/10.47526/2025-2/2664-0686.198</u>

<sup>\*</sup>Cite us correctly:

Kussepova G., Beisembayeva G., Kussepova L. The Influence of Prosodic Features on Memorization (a Study Based on Court Shows) // *Iasaui universitetinin habarshysy.* – 2025. – №2 (136). – B. 125–143. https://doi.org/10.47526/2025-2/2664-0686.198

Date of receipt of the article 05.01.2025 / Date of acceptance 30.06.2025

Андатпа. Осы зерттеудің мақсаты – сот шоуын көргеннен кейін қатысушылардың сөздерді қабылдауы мен есте сақтауына просодиялық ерекшеліктердің әсерін талдау. Ағылшын тілін жоғары деңгейде меңгерген 18 респонденттің қатысуымен жүргізілген сауалнама нәтижелерінің негізінде просодиялық сипаттамалардың ықпал ету ықтималдығы сандық, акустикалық және ANOVA статистикалық талдау әдістері арқылы анықталып, зерделенді. Басты назар назар интонация, сөйлеу әуезі, екпін сияқты просодиялық белгілердің арақатынасын және олардың заңды әрі бейтарап терминдерді есте сақтауына ықпалын анықтауға баса назар аударылды. Танымал сот шоуларынан екі бейне сегменті таңдалынып алынды. Олар: «Судебные дела» және «Divorce Court». Нәтижесінде орыс тіліндегі бағдарлама негізінде заң терминдері көбірек есте сақталғанын көрсетті. Ол дегеніміз формальды стильмен және екпінді просодикалық элементтер ықпалының әсері деп танылды. Ағылшын тіліндегі шоу нәтижесі эмоционалды түрде айтылған әсерлі сөздер, әсіресе құқықтық тақырыптан тыс сөздердің есте сақталуына әкелгенін көрсетті. Просодикалық талдау дыбыс ырғағының жоғары болуы, пауза және басқа да просодиялық акценттер, эмоционалды айтылған сөздер аудиторияның белгілі бір сөз тіркестерін естеріне сақтап қалуына ықпал етіп, қабылдау қабілетін арттыратынын айқындады. Зерттеу нәтижелері просодиялық ерекшеліктердің сот негізіндегі БАҚ бағдарламаларының тыңдаушыларға ықпалын көрсетеді.

**Кілт сөздер:** заң терминологиясы, сөздерді есте сақтау, сот шоулары, интонациялық үлгілер, қабылдау.

# Г. Кусепова<sup>1</sup>, Г. Бейсембаева<sup>2</sup>, Л. Кусепова<sup>3</sup>

<sup>1</sup>преподаватель Евразийского национального университета им. Л.Н. Гумилева (Казахстан, г. Астана), e-mail: kussepova\_gt\_2@enu.kz <sup>2</sup>PhD, и.о. доцента Евразийского национального университета им. Л.Н. Гумилева (Казахстан, г. Астана), e-mail: vip.beysembaeva@list.ru <sup>3</sup>старший преподаватель Евразийского национального университета им. Л.Н. Гумилева (Казахстан, г. Астана), e-mail: kussepova\_lt@enu.kz

# Влияние просодических особенностей на запоминание (исследование на основе судебных шоу)

Аннотация. Целью данного исследования является анализ влияния просодических особенностей на восприятие и запоминание слов участниками после просмотра судебных шоу. На основе полученных результатов опроса, проведенного среди 18 респондентов с высоким уровнем владения английским языком, проведена работа по выявлению и анализу влияния просодических характеристик с помощью вероятности количественного, акустического и статистического анализа ANOVA. Основное внимание уделялось выявлению связи между просодическими характеристиками, такими как интонация, высота тона, акцент, и их влиянием на запоминание юридических и нейтральных терминов. Выбраны два фрагмента популярных судебных шоу — «Судебные дела» и «Divorce Court». Результаты показали, что юридические термины чаще запоминались из программ на русском языке, что связано с более формальным стилем и акцентированными просодическими элементами, в то время как эмоционально окрашенные высказывания из шоу на английском языке приводили к запоминанию фраз, не связанных с юридической тематикой. Просодический анализ выявил, что изменения высоты тона, акцентуации и эмоциональной окраски повышают восприимчивость аудитории к определенным фразам. Результаты подчёркивают роль просодии в формировании восприятия юридических медиапрограмм.

Ключевые слова: юридическая терминология, запоминание слов, судебные шоу, интонационные модели, восприятие.

## Introduction

Interest in public perceptions of the legal system through the lens of market journalism is growing [1], [2], [3], but the prosody of colloquial speech remains understudied. Public opinion is influenced by a variety of factors, including the laws of a country as represented by journalism, as well as prosody, which encompasses the rhythm, stress, and intonation of speech, thereby conveying meaning beyond the lexical level [4], [5], [6], [7].

The work of Vinson & Ertter and Karno shows the frequent priority given to entertainment, which highlights how the dramatization of court proceedings by court participants shapes public engagement with the legal system [8], [9]. Additionally, Lorenzo-Dus emphasizes the role of emotionally charged elements in maximizing audience appeal [10], which Bond extends to the reality TV genre [11]. Building on this foundation, our aim is to analyze the prosodic features of words and phrases that were remembered by survey participants. We examined the impact of pronunciation features on their perception of legal terminology and prosody.

Since prosody is enriched with acoustic correlates that guide interpretation and these cues may vary depending on the speaker's identity, linguistic background, and situational context, we examine whether these factors are associated with participants' deeper engagement with legal discourse, thereby exploring the salience of legal terminology in participants' memory. This study expands our understanding of how prosody functions in media coverage of court shows by addressing a gap in research on the interaction between spoken language and audience perception. Specifically, this study aims to answer the following research questions:

1. Which words were memorable for participants, and to what extent are these words related to legal terminology?

2. Which prosodic features (e.g., pitch, intonation patterns, stress) were most prevalent in the words recalled by participants?

3. What differences exist between the two passages of word usage, and how does the influence of a second or third language affect participants' comprehension and recall of legal terminology?

By answering these questions, this study attempts to understand how prosody shapes audience interpretation of legal media narratives.

### *Literature review*

Perception involves the interpretation of sensory information [12], allowing people to understand their environment [13], [14], [15]. In the context of language perception, speech serves as a connection carrying the phonemes, syllables, and words to shape our communication through meaning [16], [17], [18], [19], [20]. Theories of speech perception emphasize that speech signals function as carriers of linguistic content, which possess unique acoustic characteristics to shape listeners' experience [21], [19], [22], [23].

When people interact through spoken language, they do not simply focus on the words being conveyed, but interpret the accompanying prosodic features [24], [25], [26], [27] as intonation, stress, and rhythm. The medium of speech – its tonal qualities, dialectal variations, and emotional inflections – can become an object of perception in its own right [28]. Clayards et al. note, "The prediction for speech perception is that listeners should be sensitive to the entire probability distribution of acoustic–phonetic cues for a word and the precision or amount of certainty about a word that a particular cue provides should be inversely proportional to the variance of that cue for that word" [29:804]. This underscores the importance of considering both the acoustic properties of

speech and the cognitive processes involved as listeners navigate the complexities of language perception.

### **Research methods and materials**

We used quantitative, qualitative and statistical research methods to investigate the prosodic features that could influence the recall of words while watching court shows. We conducted a survey containing 2 questions based on two video extracts, collected words through selective method and carried out prosodic analysis using the PRAAT program. Quantitative analyses were carried out using ANOVA to assess the differences in the frequency of noticeable words. Participants, tasks, materials, and experimental setup are detailed below.

## Data collection

We collected data using a survey designed to collect a list of words that participants found memorable. The study attempted to examine the role of prosodic features of words by linking participants' perceptions of word memorability to acoustic characteristics.

### *Participants*

A total of 18 Kazakh participants participated in the study, all of whom were fluent in Kazakh and Russian due to the bilingual environment in Kazakhstan. In addition, all participants were English language specialists and had a high level of language proficiency (B2 level or higher). Due to the specificity of the language environment in Kazakhstan, the participants' bilingualism in Kazakh and Russian was considered a natural part of their language profile, and an additional check for additional language training was not required.

The age of the participants ranged from 18 to 35 years (mean 19.33, median 19). Most of the participants were students of linguistics or related specialties. All participants reported using both Kazakh and Russian in their daily lives, while their exposure to English varied depending on their academic focus. Given that Kazakh and Russian differ significantly in their prosodic and phonological systems, the fact that the participants were exposed to both languages from an early age, and also given that Russian is often considered the dominant language in certain contexts [30], differences in language dominance were not considered problematic for research. All participants provided detailed information about their linguistic background, including their degree of bilingualism and language use. Because the previous results did not show clear evidence that participants' specific language profiles influenced their perception of prosody in the experiment, these factors were not further analyzed.

## Ethical considerations

The survey was conducted following ethical principles to protect the rights and well-being of participants. We obtained informed consent from students before conducting the survey, ensuring that all participants were at least 18 and willing to take the survey. They were informed that participation was completely voluntary and that they had the right to refuse or withdraw from the survey at any time without any adverse consequences. The identity and confidentiality of the participants were strictly protected throughout the process. All survey results and associated data were securely stored and access was restricted to researchers. In addition, the report and related publications do not disclose personal information.

Video excerpt was obtained from two popular legal shows: the Russian court talk show "Court Cases" (https://www.youtube.com/watch?v=1KAfv7vWzOo) and the American reality show "Divorce Court" (https://www.youtube.com/watch?v=OSL3Xwl0eqY). For this study, the topic "Family Disputes" was chosen to ensure consistency in the content of the two shows, allowing for a more accurate comparison of prosodic features. Two video clips were randomly selected, ensuring that each clip contained both legal and non-legal discourse. The total duration of the viewing session was approximately 33 minutes and 30 seconds.

Survey

We provided a classroom to watch the entire court show before completing the survey. Overall, the survey had two questions including two more questions about their gender and age. The respondents were asked to watch two different court shows to identify memorable words respectively. We aimed to examine how both the linguistic content and its prosodic presentation influenced recall, highlighting the complex relationship between what is said and how it is said.

After watching the court show, students were given enough time to reflect on their responses. The entire process was structured to encourage thoughtful participation.

## Results

The data for this study were collected in a university setting where 18 participants, all Kazakh-Russian bilinguals majoring in English, participated in the survey. Participants were asked to watch clips from two court shows: Sudebnyi dela (Russia) and Divorce Court (USA). The video clips were chosen to represent similar themes of family discord in both shows to facilitate comparison. Each session lasted approximately 50 minutes, of which 33 minutes and 30 seconds were devoted to video clips, allowing time for subsequent perception and recall tasks.

The data were fully transcribed, with an emphasis on phonological and prosodic features that may influence word recall. Phonetic and conversational elements were analyzed according to the conventions outlined in the linguistic transcription structures. Transcriptions were further coded for prosodic markers such as stress, intonation, and rhythm, which were thought to play an important role in shaping participants' perceptions.

The word number yielded 60 word tokens from participants' recall tasks based on their perception of both legal and non-legal terms in the court shows. Of these, 33 tokens were recalled from Sudebnyi dela and 27 from Divorce Court. A closer examination of the responses of the 18 participants revealed that the show Sudebnyi dela had a higher frequency of recall of legal terms, identifying 15 legal terms out of 33 words recalled, for an average of 0.83 legal terms per participant. In contrast, the show Divorce Court yielded only 2 legal terms out of 27 words recalled, for an average of 0.11 legal terms per participant, highlighting the higher frequency of legal terminology in the former.

This trend supports previous observations that formal prosody in legal discourse, especially in the more rigid Russian format, can enhance the salience of certain terms, making them easier to remember. This is consistent with the findings of Luchkina & Ionin that prosodic features such as intensity, duration, and pitch range vary across structural factors (e.g., word order) and referentbased factors (e.g., animacy and information status) in Russian speech. These prosodic variations likely contribute to the increased salience and memorability of certain terms in legal discourse. Furthermore, Luchkina&Ionin demonstrated that prosody can disambiguate between surface and reverse interpretations of the scope of double quantifier clauses in Russian [31]. In legal contexts, this suggests that prosodic features not only help clarify meaning, but also enhance the retention of nuanced legal terms, further reinforcing their importance in formal speech. Taken together, these studies highlight the role of prosody in enhancing the visibility and memorability of key terms in Russian legal discourse.

In a bottom-up approach, all recalled words were categorized based on their legal or non-legal nature. Legal terms were defined as those directly related to legal proceedings, such as "plaintiff," "defender," or "evict," while non-legal terms included everyday vocabulary not specific to the legal domain. For each word, its prosodic features, including stress and intonation patterns, were analyzed to assess their potential impact on recall.

The data consisted of 60 tokens found in approximately 33 minutes of courtroom recording. While this allows for comparative analysis between the two shows, the small sample size places some limitations on the reliability of our results. Future research would benefit from a larger dataset

and more diverse social interactions outside the formal courtroom setting of the show, such as informal conversations or different genres of legal media.

## Excerpt 1 Result

A one-way ANOVA was conducted to assess the differences in the frequency of memorable words reported by the students compared to their occurrence in the video clips (Picture.1). The analysis revealed significant differences in the appearance numbers of words mentioned in survey and their frequency of occurrence in the excerpt.



# Picture. 1 - Comparison of memorable word recall between survey responses and video excerpt for Excerpt 1. The figure highlights the difference in word frequency and the number of distinct words mentioned

The results of the ANOVA showed that there was a significant effect of memorable words vs. video excerpt on the frequency of words mentioned, (F(1, 64) = 4.60, p = 0.036). The critical value (F) was 3.99, indicating that the difference in word recall between the survey results and the video clips is statistically significant.

The summary statistics show that students mentioned an average of 1.82 memorable words from the first group (video clips) with a total of 60 among 33 words, while video excerpt had an average of 3.55 words, making a total of 117 mentions. Notably, ten specific phrases were mentioned among the words recalled by the students appeared only once in the court show. We analyzed prosodic distinction of those phrases to learn whether the prosody or emotional impact had taken place while watching the excerpt. Moreover, participants identified four terms that are absent in the excerpt, which also may indicate to the cognitive process of their brain replacing some words with their synonymic phrases. They are "грабеж", which might be a synonymic replacement for "кража", "долги", "обвиняемый" и "заявитель".

Prosodic analysis.

We selectively excluded repetitive words. According to works of linguists words tend to be memorized easily if they frequently appear in the content. Repeated exposure enhances the recall of words due to the involvement of the episodic memory system. This supports the idea that repeated words in discourse are more likely to be remembered as their frequency increases. Xue et al. demonstrate that greater similarity in neural activation patterns across repeated learning episodes leads to better subsequent memory performance, indicating that repeated exposure to words strengthens memory, not only for retrieval but also for recognition [32]. Similarly, Oliphant confirms the repetition priming effect, where repeated words are recognized and responded to more quickly, supporting the idea that repetition enhances memory retrieval [33]. Taken together, these studies provide strong evidence that repetition enhances word learning and recognition by making repeated words more memorable. Therefore, since this repetition frequency may influence word recall, we excluded words that were repeated more frequently across videos. Thus, focusing on phrases that were repeated more frequently by participants and mentioned less frequently across

videos, or words that appeared only once per video, were selected for further prosody analysis. We hypothesized that analyzing these phrases could allow us to understand which content elements were likely to make the greatest impression and evoke associations in viewers despite their rarity.

# Findings:

1. "Had to endure" (Pic.2)



Pic. 2 - "Приходилось терпеть (had to endure)"

If the phrase 'приходилось терпеть' (had to endure) was really said with a hint of weariness, this could be reflected in a lower volume, even intonation, and smoother transitions between words, which would correspond to displays of emotional depression. But in this passage, 'had to' has more pronounced amplitudes, which rather indicates that the pronunciation of this word required more energy or emphasis, whereas the word endure has more moderate fluctuations and amplitudes, but also greater intensity. The duration of the entire phrase was only 0.9674 seconds, which is quite a short time. Therefore, the prosecutor did not emphasize the phrase, but used a high tone and intonation.

2. "No one will return the jewelry" (Pic. 3)



Pic.3 - ".... мои украшения никто не вернет ... (....no one will return my jewelry .....)"

The graph shows the pitch rises in the verb 'вернет'. The beginning of the phrase has a relatively flat pitch (plateau) and moderate amplitude, which we think indicates a neutral or calm tone, but from 'ни-никто не вернет' (no-nobody will return) onwards there are more changes in

pitch, as the doubling of the negative (ни-никто) and the rise in pitch on 'вернет' heighten the dramatic nature of the statement.



3. "Such an idiot that he pawned it to the pawnshop" (Pic 4)

Pic. 4 - "Такой дубина что он сдал в ломбард (Such an idiot that he pawned them to the pawnshop)"

The initial part of the phrase 'такая' (such) has a relatively stable pitch, suggesting a neutral emphatic tone. However, there is a noticeable increase in pitch change with 'дубина' (idiot), and some increase around the verb 'сдал' (pawned). We suggest that the increased pitch variation emphasizes the speaker's disapproving tone. Overall, the phrase structure with sharp changes in pitch heightens the emotional expression, conveying a sense of irritation. The use of an accusatory tone in 'что он сдал' (that he pawned) and the final fall in pitch in 'ломбард' (pawnshop) further adds to the tone of resignation, emphasizing the speaker's judgmental stance.

4. "Lost control" (Pic.5)



Pic.5 - "Сорвало голову (lost control)"

In this graph we notice a relatively even tone throughout the phrase. The phrase with 'сорвало голову' maintains a steady and some slightly elevated tone in some places. We consider it indicates a calm, matter-of-fact delivery rather than an emotional one. The steady tone implies the

phrase is delivered in a controlled manner. Despite the reserved intonation, listeners might have perceived the situation emotionally, which is why this phrase has been listed in the survey results.

5. In a state of temporary insanity (Pic.6)



Pic.6 - "Как будто в состоянии аффекта (as if in a state of temporary insanity)"

The graph shows a subtle rise in pitch on the word 'как будто', indicating the hypothetical nature of the statement. The beginning of the phrase with "как будто" shows a high-low (HL) tone, followed by a gradual rise in pitch. As the phrase moves into 'в состоянии', the pitch levels out, maintaining a relatively plateau tone, indicating a neutral tone. We suppose that the rise in pitch on 'как будто' and the fall in pitch on 'аффекта' create a nuanced prosody that reinforces the dramatic nature of the situation. The reason why listeners focused on this phrase may be related to the emotional context created before and after it, where the respondent uses words with different high intonations.

6. "Criminal record" (Pic.7)



Pic.7 - "У вас теперь судимость (Now you have a criminal record.)"

The graph reveals a clear pitch shift and time lengthening on the word 'судимость' with the opening phrase 'У вас теперь' maintaining a relatively shift on level tone. We think that the judge used the deliberate emphasis of "Bac" pronounced with high intensity to highlight the gravity of this term. The fluctuating pitch might amplify the seriousness of the message, underscoring the weight of the phrase within the sentence structure. The controlled pitch rise on specific words,

followed by a final pitch drop, creates a tone that combines emphasis with nuanced disapproval. This pattern effectively conveys the judge's subtle emotional stance, reflecting both judgment and the gravity of the situation.



7. "My claim" (Pic.8)

Ріс.8 - "Моя претензия (My claim)"

The graph shows a distinct tone structure in the phrase 'моя претензия' where the word "my" begins with a lower pitch and rises slightly, likely to emphasize personal ownership. In 'претензия' the tone oscillates between high and low tones across syllables, indicating increased emphasis on the "претензия", adding a dynamic quality to the speaker's intonation. We suggest that this alternation indicates the importance of the word. Together, the initial rise, tonal change, and final fall create a tone that conveys confidence and a firm stance, effectively emphasizing the speaker's intent to assert the legitimacy or seriousness of their claim.

8. "Толстая цепочка" (Ріс.9)



Ріс.9 - "Толстая цепочка (a thick necklace)"

In this phrase, 'толстая' begins with a slight high pitch on the first syllable, followed by lowering the tone for the rest of the word, indicating an initial stress that may draw attention to the

descriptive quality of it. Moving to 'цепочка', the pitch keeps a high plateau across. This pitch pattern highlights it as the key part of the phrase. The overall structure with an initial rise, fluctuating pitches, and a strong final high tone, we suggest it is an emphasis on both the attribute and the object, perhaps conveying a tone of importance.

9. "Неудачного брака" (Pic.10)



Pic.10 - "...неудачного брака... (a five-year failed marriage)"

The phrase begins with "um," which has a low pitch, suggesting a neutral tone at the beginning, moving to 'неудачного брака', where the pitch fluctuates with a combination of slight low and high tones, suggesting an emphasis on this word. We suggest that this tonal variation reflects an expressive delivery, conveying disappointment. In 'брака', the pitch returns to a stable level, ending the phrase on a final low pitch that reinforces the sense of closure. The fluctuating pitch effectively emphasizes the speaker's emotional stance toward the concept of a failed marriage.

Moreover, the phrase 'выселить цивилизованно' is not directly present in the dialogue, but was likely cognitively inferred by the survey participants based on similar statements. The dialogue mentions key phrases such as: "Вот, у вас было два варианта. Цивилизованный и преступный" which highlight the dilemma of choosing between a law-abiding, decent approach and the opposite, 'criminal' way. Such phrases set the context, suggesting that eviction can and should take place within the framework of civilized methods, contrasting the ethical and illegal approaches.

In addition, the statement "Во-вторых, вы можете выселить их как бывших членов своей семьи из квартиры, которое принадлежит вам" suggests a civilized approach to resolving family conflicts, suggesting the use of legal measures to evict from your property. This formal tone continues in the next sentence: "К ней предъявлять требования, попробовать эти деньги взыскать и опять же через суд выселить свою бывшую супругу из своей квартиры. Цивилизованно, надо решать вопросы". Here, the expression 'you need to resolve issues in a civilized manner' reiterates the importance of observing the law and respect even in emotionally difficult situations, which may have subconsciously formed the participants' idea of 'eviction in a civilized manner'. Moreover, some phrases mentioned by respondents were absent in the extract, we suppose this is matter of cognitive substitution of some words. For example, the word "грабеж" might be indicated to "кража". "Долги", "обвиняемый", "истец" might be the result of formulating the overall situation happened in the video extract situation. Overall, the analysis highlighted the importance of prosodic features and emotional engagement in listener's perception.

Excerpt 2 Results



# Pic. 11 - Comparison of memorable word recall between survey responses and video excerpt for Excerpt 2. The figure illustrates the trends in word frequency and participant recall in the second survey

The second excerpt (Pic.11) ANOVA results showed that there was no significant effect of memorable words compared to video excerpts on word frequency (F(1, 52) = 3.37, p = 0.072). The critical value (F) was 4.03, indicating that the difference in word recall between the survey and video clips did not reach statistical significance. Summary statistics show that participants mentioned an average of 1.85 memorable words from the first group (video clips), for a total of 50 mentions among 27 words, while the video clip had an average of 3.56 words, for a total of 96 mentions. Compared to the first survey results, respondents recalled seven phrases that appeared only once in the second excerpt as well. In an analysis of the results from the "Divorce Court" show, six phrases were mentioned only once in the excerpt, but memorized by the respondents. Word substitution took place in this survey. We suppose that this might be the result of understanding the overall context conveying the emotional situation.

## Prosodic analysis

The findings of works of Paulmann&Pell, Bennett et al., and Schirmer& Gunter contextualize with this research as they highlight the role of prosody in memory retrieval. Paulmann&Pell finds that both prosody and semantic context predict subsequent emotional judgments, consistent with participants' recall of contextually inferred phrases that are not directly spoken in the divorce court show [34]. The emotional tone of the interactions influence participants to recall phrases that resonated with underlying emotional themes. Similarly, Herrera Bennett et al. demonstrate that nonverbal cues such as gestures and body language act as retrieval mechanisms for memory [35]. In divorce court shows visual elements such as facial expressions and emotional gestures likely support memory retrieval by helping participants remember specific words or phrases. Schirmer shows that emotional prosody influences affective memory for words even without affecting recognition memory, which explains why participants recalled emotionally charged words despite their low frequency in speech [36].

## Findings:

1. "Kim Kardashian made it 72 Days" (Pic.12)

The tone in the phrase '72 days' begins at a lower frequency and rises slightly toward the end, particularly around the word 'days', which likely emphasizes the time span, signaling its significance in the context of the phrase. The gradual rise in tone usually indicates an emphasis on duration, implying that the speaker may be emphasizing the importance of the time period. The relatively steady tone in 'days' as we suppose may also indicate a conclusion, which may reinforce

the certainty of the period being referred to. The gradual rise and steady fall suggest both a focus on time and a sense of resolution, which might be the reason listeners, indicated this phrase.



Pic. 12 - "Kim Kardashian made it 72 Days"

2. "Save My Breath" (Pic.13)



Pic.13 - "Save my breath"

The phrase 'save my breath' shows clear fluctuations that reflect emotional intensity, as the word 'save' begins with a higher pitch and falls, while "my" shows a sharp rise after L pitch, we suppose it indicates the speaker's sense of urgency. The word 'breath' drops sharply in pitch, signaling a sense of finality, nevertheless, by listening to this sound, we cannot hear any softening intention of the speaker. This drop in pitch may imply a need to emphasize the significance of the action. The dramatic rise and fall in pitch suggests an emotional plea, where the judge attempts to stop their arguing by conveying irritation.

3. "A Black Power Couple" (Pic.14)



Pic.14 – "A Black Power Couple"

We suppose listeners emphasized this phrase not because of the prosodic significance, but the lexical phrase itself. It reflects the emphasis on the couple's strength, with 'power' bearing the significant emotional weight in the phrase amplifying the emotional pressure that has taken place in the court show. Overall, the tone of the phrase 'a black power couple' shows a slight rise in pitch, but mostly remains stable with a level pitch, which may suggest a sense of grounding.

4. "Dated On and Off" (Pic. 15)



Pic. 15 - "We dated on and off for nine years"

The pitch in the phrase 'dated on and off' alternates significantly between high and low tones, particularly between the words 'for nine years'. This alternating pattern between high and low tones reflects the fluctuating nature of the action being described and we suggest this contrast displaying the uncertainty, instability, and temporary situation the lady faced in the last nine years. The reinforcement of time and adding the phrase 'on and off' might have an influence on the survey respondents, as the highest number of participants were 'female' participants.

5. "Don't Make Me Do It Again" (Pic.16)



Pic.16 - "Don't make me do it again"

In the phrase "don't make me do it again", we noticed significant pitch changes that reflect a strong emotional response from the speaker. The phrase begins with a rising pitch of 'don't' indicating urgency or frustration, followed by the gradually rising up phrase 'make', which drops with later sentence words. The sharp pitch contrasts throughout the phrase indicate heightened emotional intensity. The pause after 'Hey!' increases the intensity, where the speaker disagrees with the actions of a couple and warns against repeating the action.

6. "Successfully married" (Pic.17)



Pic.17 - "Successfully married"

In this graph, the tone is relatively steady, with slight rises and falls. The word 'successfully' begins at a lower pitch but increases in frequency, emphasizing the positive nature of the situation. The falling pitch toward the end of 'married' symbolizes L%, the conclusion of the statement. We suppose the respondents find this phrase reflecting confidence and assertion, which might have led to the memorization of this exact phrase.

7. "We skyped ..." (Pic. 18)



Pic.18 - "...skyped..."

A sharp drop after a rise in pitch may indicate the intention of the speaker symbolizing the weight of 'talking through Skype all the time', suggesting the importance of the act of skyping and the emotional impact it may have had on the speaker. However, the choice of listeners may lie on their experience, where the word 'Skype' might be new or intriguing. We can notice that the phrase 'skyped' is pronounced longer than other words, which indicates '*The physical lengthening of sounds and syllables has an iconic force which is more directly expressive than a purely verbal description of approval and appreciation [37:130]*', which means the speaker intentionally pronounced it, putting high value on it.

Overall, despite their low frequency, the occurrence of the words may highlight the potential influence of distinctive prosodic features of these words. The divorce court show exhibited the heightened emotional salience characteristic of televised material, consistent with Pycha's findings that words with distinctive features such as low frequency and clear speech style are better remembered in recognition tasks [38]. Based on the Distinctiveness Hypothesis, we propose that the distinctiveness of these words shaped by prosody and emotional context increased their likelihood of being remembered (Pic. 19).



Pic. 19 - Hypothesis of correlation (www.bioinformatics.com.cn)

## Discussion

*Research question 1:* Which words were memorable for participants, and to what extent are these words related to legal terminology? Overall, both repetitive words and words pronounced emotionally with prosodic peculiarities were most remembered by the respondents. Two court shows showed the difference in words in terms of legal and non-legal terminologies.

*Research question 2:* Which prosodic features (e.g., pitch, intonation patterns, stress) were most prevalent in the words recalled by participants? Almost all words were filled with prosodic features such as high pitch, fluctuating tone, pauses and stress, except some, which had a plateau pitch, but high intensity. Pitch changes were particularly significant in phrases such as "Украшения никто не вернет" and "судимость", which showed the pitch changes associated with increased emotional emphasis, making them more memorable. Intonation patterns played an important role as well. The rising pitch and dramatic pauses in phrases such as "Save my breath" and "Don't make me do it again" made these emotionally charged utterances stand out in memory.

*Research question 3:* What differences exist between the two passages of word usage, and how does the influence of a second or third language affect participants' comprehension and recall of legal terminology? The main difference between the two segments, "Sudebnyi Dela" and "Divorce Court," was the frequency and type of legal terms recalled by participants. The respondents could recall more legal terms from "Sudebnyi dela" than from "Divorce Court". The first extract held more formal style of the court, while the second extract relied on emotionally charged dialogue respectively. The effect of participants' bilingualism in Kazakh, Russian, and English did not appear to have a significant direct effect on their recall of legal terminology. However, participants' familiarity with Russian as a formal legal language likely contributed to their ability to recall legal terms more effectively in the Russian court show.

In summary, participants' bilingual environment did not appear to directly influence their understanding or recall of legal terminology, but their exposure to Russian legal discourse likely influenced their ability to recall legal terms more effectively in context. Additionally, the emotional prosody in Divorce Court played a more significant role in participants' recall of non-legal, emotionally charged phrases.

## Conclusion

Our results show that prosody significantly influences word recall, with notable differences between the two court shows in terms of both the legal terminology used and the prosodic features that accompany it. Our analysis of the prosodic features of memorable words revealed that pitch changes, particularly sharp rises and falls had a profound effect on how phrases were remembered. The increased emotional salience of these phrases, due to prosodic cues, contributed to their memorability.

Overall, these results provide compelling evidence that prosody plays a critical role in shaping how viewers engage with legal discourse on television. The interaction between emotional tone, prosodic cues, and the context of the show enhances the recall of certain legal and non-legal terms, thereby influencing audience perceptions of the legal system depicted in court shows.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### REFERENCES

1. Baird V.A., Gangl A. Shattering the myth of legality: The impact of the media's framing of Supreme Court procedures on perceptions of fairness // Political Psychology. – 2006. – Vol. 27. – №. 4. – P. 597-614. https://doi.org/10.1111/j.1467-9221.2006.00518.x

- 2. Boda Z., Medve-Bálint G. How perceptions and personal contact matter: The individual-level determinants of trust in police in Hungary // Policing and society. 2017. Vol. 27. №. 7. P. 732-749. https://doi.org/10.1080/10439463.2015.1053479
- 3. Surette R., Kampe K. The media and criminal justice policy and practices // Advancing criminology and criminal justice policy. Routledge, 2016. P. 428-440. https://doi.org/10.4324/9781315737874
- 4. Fujisaki H. Prosody, models, and spontaneous speech // Computing prosody: Computational models for processing spontaneous speech. New York, NY: Springer US, 1997. P. 27-42. https://doi.org/10.1007/978-1-4612-2258-3\_3
- 5. Dahan D. Prosody and language comprehension // Wiley Interdisciplinary Reviews: Cognitive Science. 2015. Vol. 6. №. 5. P. 441-452. https://doi.org/10.1002/wcs.1355
- 6. Arvaniti A. The phonetics of prosody. 2020. P. 1-47. [Electronic resource]. URL: https://repository.ubn.ru.nl/bitstream/handle/2066/221313/221313.pdf?sequence=1 (date of access 28.07.2024)
- Kurumada C., Roettger T. B. Thinking probabilistically in the study of intonational speech prosody // Wiley Interdisciplinary Reviews: Cognitive Science. – 2022. – Vol. 13. – №1. – P. e1579. https://doi.org/10.1002/wcs.1579
- 8. Vinson C. D., Ertter J. S. Entertainment or education: How do media cover the courts? // Harvard International Journal of Press/Politics. 2002. Vol. 7. №4. P. 80-97. https://doi.org/10.1177/108118002236351
- 9. Karno V. Remote Justice: Tuning in to Small Claims, Race, and the Reinvigoration of Civic Judgment //Consciousness and Ideology. – Routledge, 2017. – P. 325-346. https://doi.org/10.4324/9781315259604
- 10. Lorenzo-Dus N. Real disorder in the court: An investigation of conflict talk in US television courtroom shows //Media, Culture & Society. 2008. Vol. 30. №1. P. 81-107. https://doi.org/10.1177/0163443708088613
- 11. Bond J. The Cost of Canada's Legal Aid Crisis: Breaching the Right to State-Funded Counsel within a Reasonable Time //Crim. LQ. 2012. Vol. 59. P. 28. [Electronic resource]. URL: https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2129558 (date of access 28.07.2024)
- 12. Whitt R. J. Auditory evidentiality in English and German: The case of perception verbs //Lingua. 2009. Vol. 119. №. 7. P. 1083-1095. https://doi.org/10.1016/j.lingua.2008.11.001
- 13. Efron R. What is perception? //Proceedings of the Boston Colloquium for the Philosophy of Science 1966/1968. Dordrecht : Springer Netherlands, 1969. P. 137–173.
- 14. Goldstein E. B. (ed.). Encyclopedia of perception. Sage, 2010. 1179 p.
- 15. Bartoshuk L. M. Sensation and Perception //The Cambridge Handbook of the Intellectual History of Psychology. Cambridge University Press, Cambridge. 2019. P. 88-110. [Electronic resource]. URL: http://sonify.psych.gatech.edu/~walkerb/classes/perception/readings/Bartoshuk-2019-history.pdf (date of access 03.08.2024)
- 16. Moore B. C. J. The role of temporal fine structure processing in pitch perception, masking, and speech perception for normal-hearing and hearing-impaired people //Journal of the Association for Research in Otolaryngology. 2008. Vol. 9. P. 399-406. [Electronic resource]. URL: https://link.springer.com/article/10.1007/s10162-008-0143-x (date of access 28.07.2024)
- 17. Altvater-Mackensen N., Fikkert P. The acquisition of the stop-fricative contrast in perception and production //Lingua. 2010. Vol. 120. №8. P. 1898-1909. https://doi.org/10.1016/j.lingua.2010.02.010
- 18. Remez R. E. Perceptual organization of speech //The handbook of speech perception. 2021. P. 1-27. https://doi.org/10.1002/9781119184096.ch1
- 19. Vouloumanos A. Speech Perception //Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource. 2015. P. 1-7. https://doi.org/10.1002/9781118900772.etrds0315
- 20. Gwilliams L. How the brain composes morphemes into meaning //Philosophical Transactions of the Royal Society B. 2020. Vol. 375. №1791. P. 20190311. https://doi.org/10.1098/rstb.2019.0311
- 21. Magnuson J. S., Nusbaum H. C. Acoustic differences, listener expectations, and the perceptual accommodation of talker variability //Journal of Experimental Psychology: Human perception and

performance. – 2007. – Vol. 33. – №2. – P. 391. https://psycnet.apa.org/doi/10.1037/0096-1523.33.2.391

- 22. Kiefte M., Nearey T. M. Theories and models of speech perception //The Routledge handbook of phonetics. Routledge, 2019. P. 289-313. https://doi.org/10.4324/9780429056253
- 23. Stilp C. Acoustic context effects in speech perception //Wiley Interdisciplinary Reviews: Cognitive Science. 2020. Vol. 11. №. 1. P. e1517. https://doi.org/10.1002/wcs.1517
- 24. Cutler A., Dahan D., Van Donselaar W. Prosody in the comprehension of spoken language: A literature review //Language and speech. 1997. Vol. 40. №2. P. 141-201. https://doi.org/10.1177/002383099704000203
- 25. Szczepek Reed B. Beyond the particular: Prosody and the coordination of actions //Language and Speech. 2012. Vol. 55. №1. P. 13-34. https://doi.org/10.1177/0023830911428871
- 26. Zellers M. Prosodic variation and segmental reduction and their roles in cuing turn transition in Swedish //Language and Speech. 2017. Vol. 60. №3. P. 454-478. https://doi.org/10.1177/0023830916658680
- 27. Kussepova G. T. et al. Verification of communicative types in the judicial public space of media discourse in the USA, Kazakhstan and Russia as a psycholinguistic marker of fact-checking //Amazonia Investiga. 2023. Vol. 12. №61. P. 131-144. https://doi.org/10.34069/AI/2023.61.01.14
- 28. Hasse J. Places and their voices: what becomes perceptible through the audible // Annual Review of the Faculty Of Philosophy 2022. Vol. 47. №1. P. 15-26. https://doi.org/10.19090/gff.2022.1.15-26
- 29. Clayards M. et al. Perception of speech reflects optimal use of probabilistic speech cues //Cognition. 2008. Vol. 108. №. 3. P. 804-809. https://doi.org/10.1016/j.cognition.2008.04.004
- 30. Smagulova J. Ideologies of language revival: Kazakh as school talk //International Journal of Bilingualism. 2019. Vol. 23. №3. P. 740-756. https://doi.org/10.1177/1367006916684920
- 31. Luchkina T., Ionin T. The effect of prosody on availability of inverse scope in Russian //Formal Approaches to Slavic Linguistics. 2015. Vol. 23. P. 418-437.
- 32. Xue G. et al. Greater neural pattern similarity across repetitions is associated with better memory //Science. – 2010. – Vol. 330. – №6000. – P. 97-101. https://doi.org/10.1126/science.1193125
- Oliphant G. W. Repetition and recency effects in word recognition //Australian Journal of Psychology. 1983. – Vol. 35. – №3. – P. 393-403. http://dx.doi.org/10.1080/17470211003687546
- Paulmann S., Pell M. D. Contextual influences of emotional speech prosody on face processing: How much is enough? //Cognitive, Affective, & Behavioral Neuroscience. – 2010. – Vol. 10. – №2. – P. 230-242. https://doi.org/10.3758/CABN.10.2.230
- 35. Herrera-Bennett A. et al. Emotion-modulated recall: Congruency effects of nonverbal facial and vocal cues on semantic recall //Collabra: Psychology. 2022. Vol. 8. №1. P. 31601. https://doi.org/10.1525/collabra.31601
- 36. Schirmer A., Gunter T. C. Temporal signatures of processing voiceness and emotion in sound //Social cognitive and affective neuroscience. 2017. Vol. 12. №6. C. 902-909. https://doi.org/10.1093/scan/nsx020
- Reed B. S., Reed B. S. Prosody in conversation //Prosodic orientation in English conversation. 2007. –
  P. 1-32. [Electronic resource]. URL: https://library.uc.edu.kh/userfiles/pdf/28.Prosodic%20orientation%20in%20English%20conversation%2
   0.pdf (date of access 28.07.2024)
- 38. Pycha A. Phonological and morphological roles modulate the perception of consonant variants //Linguistics Vanguard. 2021. Vol. 7. №1. P. 1-9. https://doi.org/10.1515/lingvan-2020-0025