CO-SPEECH GESTURES IN POLITICAL COMMUNICATION: A CASE STUDY OF NICOLAS SARKOZY AND EMMANUEL MACRON

CỬ CHỈ KÈM LỜI TRONG GIAO TIẾP CHÍNH TRỊ: NGHIÊN CỨU TRƯỜNG HỢP ÔNG NICOLAS SARKOZY VÀ ÔNG EMMANUEL MACRON

Dao Thi Thanh Phuong, Dang Minh Chau*, Do Kim Thanh

The University of Danang - University of Foreign Language Studies, Vietnam

*Corresponding author: dmchau@ufl.udn.vn

(Received: September 08, 2025; Revised: October 22, 2025; Accepted: October 29, 2025)

DOI: 10.31130/ud-jst.2025.23(10A).469

Abstract - The article analyzes the role and frequency of use of co-speech gestures in the speeches of two French politicians, Nicolas Sarkozy and Emmanuel Macron. The study employs two methods - quantitative and qualitative analysis - to clarify the diversity and functions of paraverbal gestures (gestes paraverbaux), gestures illustrating abstract concepts (gestes idéographiques), deictic gestures (gestes déictiques), and spatial-illustrative gestures (gestes illustratifs spatiographiques) in political communication. The research findings indicate that both figures prioritize paraverbal gestures in conveying their messages. Differences in context - whether appearing in person or through the media - affect the use of deictic gestures. The study underscores the crucial role of gestures in enhancing interaction and the effectiveness of political.

Key words - Co-speech gestures; Political communication; Multimodal discourse analysis; Nonverbal communication; Persuasive strategies

1. Introduction

Numerous studies, notably those by Kendon and McNeill, have affirmed the close relationship between speech and gesture in communication [1]. These two elements not only coexist but also complement each other, clarifying content, emphasizing meaning, and enhancing interactive effectiveness [2]. In the realm of politics, body language - particularly co-speech gestures - plays a crucial role in attracting public attention, building image, and conveying messages.

Based on this understanding, the present study focuses on examining co-speech gestures used by French politicians during public speeches, aiming to answer questions regarding the types, frequency, and interactive effectiveness of these gestures. Although there has been considerable research on gestures in communication, indepth studies specifically on co-speech gestures within French political discourse remain limited.

This research employs both qualitative and quantitative methods, combined with advanced image processing technology, to classify, quantify, and evaluate the role of gestures in speeches. Beyond mere identification, the study delves deeply into the impact of gestures on persuasiveness and audience interaction.

The research findings are expected to contribute to discourse analysis theory, multimodal communication Tóm tắt - Bài báo phân tích vai trò và tần suất sử dụng các loại cử chỉ kèm lời trong bài phát biểu của hai chính trị gia Pháp, Nicolas Sarkozy và Emmanuel Macron. Nghiên cứu sử dụng 2 phương pháp: phân tích định lượng và định tính, nhằm làm rõ sự đa dạng và chức năng của các cử chỉ cận ngôn (geste paraverbal), cử chỉ minh họa các khái niệm trừu tượng (geste idéographique), cử chỉ chỉ vật (geste déictique) và cử chỉ minh họa không gian, phương hướng (geste illustratif spatiographique) trong giao tiếp chính trị. Kết quả nghiên cứu cho thấy, cả hai nhân vật đều ưu tiên cử chỉ cận ngôn trong việc truyền tải thông điệp. Sự khác biệt trong bối cảnh xuất hiện trực tiếp và qua truyền thông ảnh hưởng đến việc sử dụng cử chỉ chỉ định. Nghiên cứu khẳng định vai trò quan trọng của cử chỉ trong tăng cường tương tác và hiệu quả giao tiếp chính trị.

Từ khóa - Cử chỉ kèm lời; Giao tiếp chính trị; Phân tích diễn ngôn đa phương thức; Giao tiếp phi ngôn ngữ; Chiến lược thuyết phục.

studies, and provide practical value for training presentation skills, public speaking, and building a professional political image.

2. Theoretical framework

2.1. Overview of Research on Co-Speech Gestures

Kendon is among the first scholars to conduct in-depth research on gestures in communication, considering gestures as an inseparable component of utterance [3]. McNeill inherited and expanded Kendon's work, introducing the concept of "co-expressive gestures", emphasizing the synchrony between spoken language and body language [4]. According to McNeill, speech and gesture not only occur simultaneously but also supplement and reinforce each other's meaning, forming a unified communicative act [5]. Additionally, Fast, in his renowned work Body Language, discussed the capacity of gestures to convey messages, overcome communication barriers, and influence interlocutors' perceptions [6]. International research generally concurs that co-speech gestures play a pivotal role in information construction, image building, and increasing persuasive effectiveness in communication - especially in formal contexts such as politics.

In Vietnam, research on body language in general and co-speech gestures in particular began to flourish after the 1990s. Many scholars have approached this topic from

linguistic, semiotic, and communicative perspectives. Nguyen Quang asserts that nonverbal elements - including gestures - often accompany and integrate with spoken language, contributing to a complete communication system [7]. Notably, he also proposed gesture language theory as one of the hypotheses regarding the origin of human language. Meanwhile, Nguyen Quang considers nonverbal language a key component of semiotic theory, analyzing the role, function, and influence of body language in social communication. Elements such as eye contact, gestures, and interpersonal distance are studied as parts of the expressive system. Nguyen Quang further divides nonverbal communication into three types: body language, object language, and environmental language - a concept that partially corresponds to paralinguistic and extralinguistic theories in Western frameworks.

2.2. Co-Speech Gestures in communication

2.2.1. Concept, Classification, and Role of Co-Speech Gestures

Co-speech gestures (*gestes co-verbaux*) are bodily movements that accompany speech, serving as a supplement to the nonverbal communication process. According to Cosnier, these gestures "depend on the process of utterance" [8]. Numerous studies confirm that co-speech gestures, primarily hand and arm movements, are inseparable components of the language system. McNeill emphasizes the spontaneous and individual characteristics of these gestures as they accompany speech [9].

The most common classification, following McNeill, comprises four main groups based on function: Iconic gestures (iconiques): directly depict objects or actions; Metaphoric gestures (métaphoriques): represent abstract concepts through visual imagery; Deictic gestures (gestures of indication): point to specific locations, people, or objects; Beat gestures: rapid hand movements that create rhythm for speech without specific meaning.

According to Cosnier, the referents of deictic words (déictiques) may be present or absent. Typically, "the speaker's body serves as a referential object", as Do Kim Thanh observed [10]. Discussing deictic words, Cosnier highlights that speakers use their own bodies as reference points to illustrate concepts of time and space [11].

Co-speech gestures serve as expressive tools when speakers struggle to find words [12]. Their use also helps reduce cognitive load during communication [13]. Additionally, gestures enhance cognitive abilities and make message transmission more effective [14]. They assist in maintaining images in memory, stimulate visualization, and support information retrieval [15]. Moreover, gestures help regulate social interaction by providing feedback and expressing attitudes of both speaker and listener [16].

2.3. The Concept of Body Language and Co-Speech Gestures

Body language is understood as a set of nonverbal behaviors such as hand gestures, posture, facial expressions, stance, and eye contact used to convey information in communication. Among these, co-speech gestures are bodily movements that occur simultaneously with speech, not only supporting but also expanding the meaning of utterances.

Co-speech gestures are a part of body language and are universal (*universel*), meaning that people from any linguistic-cultural community use co-speech gestures, and their forms (*signifiant*) are generally similar, differing only in frequency depending on cultural background.

In contrast, conventional gestures (Gestes conventionnels, or Gestes emblématiques, or Gestes culturels) are also components of body language, but they are conventionalized within a linguistic-cultural community, meaning only those within or familiar with that community understand the meaning (signifié) of these gestures.

McNeill divides co-speech gestures into four main types: Iconic gestures: mimic shapes or actions; Metaphoric gestures: express abstract concepts through imagery; Deictic gestures: point to people, objects, or places; Beat gestures: follow the rhythm of speech, often without clear content but supporting intonation and emphasis. Cosnier later adopted McNeill's classification to further subdivide iconic gestures into three categories: spatial-illustrative gestures (*spatiographique*), geometric-conceptual gestures (*pictomimique*), and action-illustrative gestures (*kinémimique*). This is why we chose Cosnier's classification theory for analyzing our data.

Co-speech gestures are not random phenomena but products of a close coordination between the language system and motor behavior within the speaker's brain.

2.3.1. Gestures in Political Communication

In political contexts, body language - especially cospeech gestures - plays a vital role in image building, fostering trust, and enhancing persuasiveness. Politicians often rely on gestures to convey confidence, openness, or emotional connection. Studies by Bull, Poggi & Pelachaud have demonstrated a strong correlation between politicians' use of gestures and the effectiveness of their speeches [17]. Appropriately timed and meaningful gestures can increase positive audience reception, whereas asynchronous or excessive gestures may have adverse effects [18].

2.3.2. Analytical Approaches to Co-Speech Gestures

In political contexts, body language - particularly cospeech gestures - plays a significant role in image construction, trust-building, and persuasive power. Politicians frequently employ gestures to convey confidence, openness, or emotional connection. Research by Bull, Poggi & Pelachaud has shown a close relationship between how politicians use gestures and the effectiveness of their speeches [19]. Gestures used at the right moment and with the right message can enhance positive audience reception, while asynchronous or overused gestures may have negative consequences.

3. Analysis of Co-Speech Gestures in the Speeches of French Politicians

3.1. Research design

The study focuses on co-speech gestures in public speeches by Presidents Nicolas Sarkozy and Emmanuel

Macron, across various contexts such as election campaigns, press conferences, parliamentary speeches, and televised addresses. The scope is limited to official videos from 2017 to the present - the period marking the start of Macron's term and notable changes in French political communication.

The dataset consists of two videos (30 minutes each), collected from official sources such as the government's YouTube channel, television stations (France 24, BFMTV, TF1), and the politicians' websites. Videos were extracted and encoded for analysis.

President Macron delivered a speech on the reinstatement of social distancing due to COVID-19, emphasizing solidarity and community responsibility. Former President Sarkozy spoke at the Grand Paris Conference about urban development vision. The two speeches represent distinct approaches: crisis management and development strategy.

A combination of qualitative and quantitative methods was employed. The qualitative approach involved coding gestures concurrent with speech; classification followed McNeill's model: iconic, metaphoric, deictic, beat; and analysis of the relationship between gesture and utterance. Quantitative analysis included statistical frequency and diversity of gestures between politicians and contexts; evaluation of language—nonverbal synchrony based on ratios and semantic appropriateness.

Additional analytical tools included: ELAN for coding and synchronizing data; Excel for statistical processing; FFmpeg for video processing.

3.2. Analysis of Co-Speech Gestures in Political Communication by N. Sarkozy and E. Macron

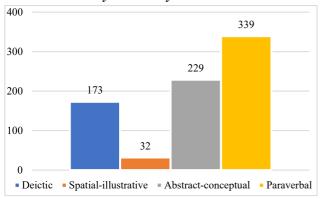


Figure 1. Frequency of gesture use in N. Sarkozy's speeches

In this study, we apply Cosnier's [10] classification, including: deictic (déictique), spatial-illustrative (illustratif spatiographique), abstract-conceptual (idéographique), and paraverbal (paraverbal) gestures, using the Vietnamese terminology of Do Kim Thanh from [11].

3.2.1. Co-Speech Gestures in Nicolas Sarkozy's Speeches

A total of 665 co-speech gestures were recorded in Sarkozy's speeches. Paraverbal gestures were the most frequent, appearing throughout to organize arguments and emphasize content. Abstract-conceptual gestures and deictic gestures ranked second and third in frequency, while spatial-illustrative gestures were least common (5%).

Sarkozy utilized a diverse array of gestures to support his discourse. Spatial-illustrative gestures helped create visual images of geopolitical connections, such as linking Grand Paris to Europe. Deictic gestures were used to indicate people, groups, or specific times, combined with eye contact to enhance interaction and audience inclusion. Gestures directed toward himself often appeared when discussing personal responsibility. Abstract-conceptual gestures demonstrated flexibility, enabling visualization of concepts such as strategic vision or leadership roles, thereby supporting argumentation and motivating action. Notably, paraverbal gestures were used frequently to emphasize conjunctions, contrasts, and transitions, making messages clearer and more coherent.

3.2.2. Co-Speech Gestures in Emmanuel Macron's Speeches

Macron's speeches recorded a total of 337 co-speech gestures. Similar to Sarkozy's speeches, paraverbal gestures were the most commonly used, reflecting their important role in maintaining speech coherence. Next were abstract-conceptual gestures and deictic gestures, while spatial-illustrative gestures were least frequent.

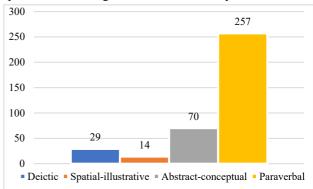


Figure 2. Co-speech gestures of Emmanuel Macron

President Macron flexibly utilized various gesture types to enhance persuasiveness in his discourse on the COVID-19 pandemic. Spatial-illustrative gestures helped listeners visualize the scale of the pandemic's impact from France to the global level, as well as illustrate directions and response measures. Deictic gestures were used to interact directly with the public, pointing to the screen or the audience, thereby encouraging consensus and collective action. Abstract-conceptual gestures clarified complex issues related to the pandemic, policies, and community roles. Paraverbal gestures appeared frequently, helping to systematize arguments, emphasize pandemic response strategies, and highlight messages, thus increasing persuasive effectiveness.

3.3. Comparison of Co-Speech Gesture Use by Emmanuel Macron and Nicolas Sarkozy

3.3.1. Quantitative comparison

Quantitative analysis reveals marked differences in the frequency of gesture types between the two politicians, largely influenced by context and mode of appearance. Specifically, Sarkozy, appearing directly before the public, used more deictic gestures to emphasize and indicate specific objects, locations, or times in his speeches. In contrast, Macron, speaking via indirect media channels,

used fewer deictic gestures, consistent with reaching audiences through screens. Both politicians prioritized paraverbal gestures, which were the most frequent, highlighting their importance in maintaining coherence and clarifying the informational structure of speeches. Differences in the frequency of abstract-conceptual gestures also reflect flexible adjustment based on content and communicative goals of each speech.

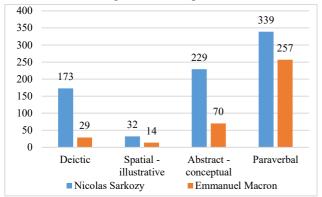


Figure 3. Comparison of co-speech gesture frequency between N. Sarkozy and E. Macron

3.3.2. Qualitative Comparison

Qualitatively, both politicians effectively employed spatial-illustrative gestures to emphasize measures and policies needed to achieve set objectives. This concretizes messages through gestures, leaving a strong impression on listeners. Deictic gestures not only underscore information but also foster interaction between speaker and audience; notably, Sarkozy's direct appearance made his use of these gestures more dynamic and lively, while Macron leveraged them to simulate direct dialogue with viewers through the screen.

Example 1:

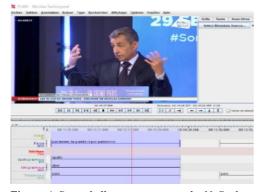


Figure 4. Spatial-illustrative gesture by N. Sarkozy

In this scenario, when Sarkozy discussed the importance of developing the transportation system in the Grand Paris area: "le port de Paris, l'alimentation, la fourniture marchandise de toutes la commémoration parisienne, la région parisienne, ça vient du havre. Donc, faire le TGV, le havre Paris, c'est l'investissement majeur" (the port of Paris, food supply, goods serving all activities in Paris, the Paris region - all come from Le Havre. Therefore, building the Le Havre–Paris TGV line is a major investment). When mentioning "the Paris region", the former President fully extended his arms, creating a

large gap between them for the audience to visualize the space he referred to. Not only did he illustrate the space affected by the TGV line, but the gestures and words complemented each other to persuade and encourage Grand Paris project participants to accept expansion and construction of the TGV line.

Example 2:

In this example, when Macron spoke about the extremely rapid spread of the COVID-19 pandemic, he declared: "À la différence de la première vague, l'ensemble des régions se trouvent aujourd'hui au seuil d'alerte... nous avons commencé à déprogrammer des opérations du cœur ou du cancer - parfois les mêmes qui avaient dû être décalées au printemps" (Unlike the first wave, all regions are now at the alert threshold... we have begun postponing heart or cancer surgeries - sometimes the same ones that had to be delayed in the spring). We observed that as Macron made this statement, his left hand rested firmly on the table, while his right hand was used to illustrate space. When referring to "l'ensemble des régions", his right hand moved from one position to another to show the vastness of the space mentioned. This gesture played a crucial role in highlighting the spatial extent affected by the pandemic. The spatial-illustrative gestures (gestes spatiographiques) combined with his speech helped the audience better understand the urgency of the situation.



Figure 5. Spatial-illustrative gesture by E. Macron 1



Figure 6. Spatial-illustrative gesture by E. Macron 2

Deictic gestures were used to indicate the speaker or absent individuals/events, drawing attention and highlighting arguments.

Example 3:

In his speech, Sarkozy directly mentioned honored

guests present at the conference. He emphasized the role of housing reform within the Grand Paris project: « la Grand Paris n'a jamais été uniquement un Grand Paris des transports, jamais nous n'avons pensé ça, jamais Maurice, nous l'avons dit sans transports et c'est vrai Patrick, qu'on n'a pas Grand Paris » (Grand Paris has never been just a transportation project, we have never thought so, never, Maurice, we have said that - without transportation - and it is true, Patrick, that we do not have Grand Paris). In this statement, besides Patrick, Sarkozy also mentioned Maurice Leroy. To attract the attention of key figures influencing the Grand Paris project, he used his right hand, clenched lightly, pointing straight ahead while looking directly toward Maurice's seat; at that moment, he called Maurice's name. Similarly, when mentioning Patrick, he quickly pointed his left hand toward Patrick's position. Such gestures helped Sarkozy gain favor from important figures and reinforced his view on prioritizing housing development in Grand Paris.



Figure 7. Deictic gesture by N. Sarkozy

Example 4:

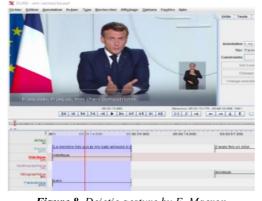


Figure 8. Deictic gesture by E. Macron

Macron immediately addressed France's difficult situation, stating: « La dernière fois que je me suis adressé à vous au sujet de la pandémie qui nous frappe, j'avais fixé un délai – une dizaine de jours - pour juger de l'efficacité des choix faits et décider de l'opportunité de mesures nouvelles » (The last time I spoke to you about the pandemic affecting us, I set a deadline - about ten days - to assess the effectiveness of the choices made and decide whether to implement new measures). We observed that he used the pronoun "you", then described the current situation. Mentioning "you" allowed him to remind the public of previous anti-pandemic measures taken by the

government. Additionally, Macron placed both hands parallel, gently extending them with thumbs pointing forward and other fingers directly toward the screen, as if pointing at viewers. This gesture helped draw public attention to his message and highlighted the seriousness of the current situation.

Abstract-conceptual gestures play an essential role in illustrating abstract or complex aspects of speeches, making issues more vivid and understandable for the public.

Example 5:

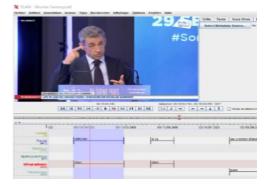


Figure 9. Abstract-conceptual gesture by N. Sarkozy

This scenario occurred when Sarkozy recalled financial solution implementation for the Grand Paris project, stating: "Si on voit le Grand Paris comme une dépense, on fera jamais rien... Je vous dis une chose très simple, c'est le projet qui fait l'argent, pas l'argent qui fait projet. Réfléchir à ça!" (If we see Grand Paris as an expense, we'll never do anything... I tell you something very simple: the project makes the money, not the money makes the project. Think about that!). Here, he referred to Grand Paris as a financial source. When saying "Réfléchir", he raised his left hand near his head, index finger pointing at his temple and rotating repeatedly. This gesture illustrated the verb "Réfléchir" and expressed the President's intent to urge delegates to reflect on his message. The effectiveness of the gesture was evident as delegates laughed in response. By combining the word "Réfléchir" with a symbolic gesture, it was also a strategic pause, encouraging deeper audience reflection on his statement.

Example 6:

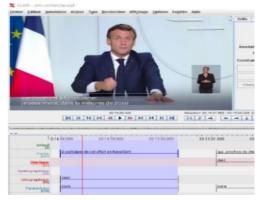


Figure 10. Abstract-conceptual gesture by E. Macron

For Macron, as in this example, after mentioning economic protection strategies, he clarified citizens'

required tasks: "Je vous invite donc, dans la mesure des possibilités de chacun, à participer de cet effort en travaillant, en soutenant les entreprises qui, proches de chez vous, ont innové à travers des commandes à distance, la vente à emporter ou la livraison à domicile" (Therefore, I urge you, within each person's means, to participate in this effort by working, supporting businesses near you those that have innovated through remote orders, takeaway sales, or home delivery). Macron summarized tasks for French citizens through the concept "cet effort". This concise synthesis helped the President emphasize citizens' roles and responsibilities in protecting themselves and the country. To convey this message clearly, he raised his right hand and gently rotated it toward the screen, clenched his fist - a gesture illustrating the "effort" required of the French people. This action highlighted the importance of seriously fulfilling these tasks as a condition for successful response strategies.

Regarding paraverbal gesture use, both leaders systematically employed them to highlight main points and important grammatical structures, aiding audience tracking and information retention. Repetition of paraverbal gestures in each utterance also reflects habitual use to enhance communicative effectiveness.

Example 7:



Figure 11. Paraverbal gesture by N. Sarkozy 1



Figure 12. Paraverbal gesture by N. Sarkozy 2

When Sarkozy referred to the Paris 2024 Olympics - a particularly significant event for France - he emphasized its importance: "allons-y ensemble, c'est une occasion de rencontre, c'est une occasion de partage, c'est une occasion d'ouverture mondiale" (Let's move forward together, this is an opportunity for meeting, sharing, and opening to the world). He repeatedly used the structure "c'est une occasion" to convey his message, accompanied by connecting nouns such as "rencontre", "partage", and concluding with the global connection "ouverture

mondiale". To make his message clearer to the audience, he turned toward them, clenched both hands, and moved them each time he emphasized "c'est une occasion". Here, the use of paraverbal gestures to emphasize the significance of the Paris 2024 Olympics helped him attract attention and create a strong impression on listeners regarding the event's magnitude.

Example 8:

In this example, Macron addressed the limitations of proposed strategies to combat the COVID-19 pandemic. He mentioned the strategy applied in the early phase: "Tester, alerter, protéger" and stated: "Nous pourrions également faire le pari de tout miser sur la stratégie du « Tester, alerter, protéger" (We could also bet everything on the 'Tester, alerter, protéger' strategy). Mentioning this strategy aimed to highlight its limitations, even though it was quite successful in the first wave. To emphasize "Tester", "alerter", and "protéger", Macron positioned both hands parallel and moved them to different positions on the table, corresponding to each stated action. This gesture, combined with his speech, played a crucial role in drawing public attention to the strategy once considered key, while highlighting its limitations in the context of preventing a second wave - thus demonstrating the pandemic's severity.

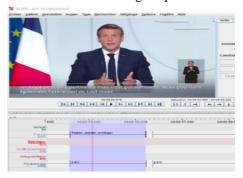


Figure 13. Paraverbal gesture by E. Macron 1

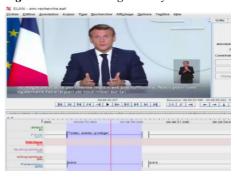


Figure 14. Paraverbal gesture by E. Macron 2

Overall, differences in gesture use between Macron and Sarkozy were mainly influenced by audience approach (direct or indirect) and content delivery objectives, but both demonstrated proficiency in coordinating gestures and speech to enhance political communicative effectiveness.

3.3.3. Interpretation of Results

Analysis of the speeches by Nicolas Sarkozy and Emmanuel Macron allows us to draw several conclusions regarding the use of co-speech gestures in French political discourse. First, the speech context affects the frequency and manner of gesture use: Sarkozy, in direct environments, used gestures more frequently than Macron, who spoke via media.

Second, paraverbal gestures were densely present in both, playing a key role in organizing arguments and emphasizing crucial information.

Third, spatial-illustrative gestures helped visualize messages, supporting reception and memory.

Fourth, deictic gestures were used to interact with the public, appearing more frequently in Sarkozy's direct speeches.

Fifth, abstract-conceptual gestures contributed to clarifying complex information, increasing persuasiveness and audience recall.

3.3.4. The Importance of Applying Co-Speech Gestures in French Language Teaching

In teaching French, co-speech gestures are not only supportive tools but also play an essential role in helping learners acquire language more naturally and effectively. Firstly, gestures concretize abstract concepts, aid vocabulary and sentence structure retention through the combination of language and movement. Secondly, co-speech gestures enhance classroom interaction, enabling instructors to adjust teaching pace, attract attention, and encourage students to actively use French, especially for Vietnamese learners. Finally, gestures carry cultural value and help develop intercultural communicative competence. When used appropriately, gestures not only deepen students' understanding of French culture but also improve their presentation and debating skills - essential abilities in an international integration environment.

4. Conclusion

This study analyzes the role of co-speech gestures in political discourse, through the speeches of Nicolas Sarkozy and Emmanuel Macron, the research investigates the types of gestures used, their frequency, and their impact on communicative effectiveness. The results show that both politicians employed four main gesture groups: paraverbal, abstract-conceptual, deictic, and spatial-illustrative, with paraverbal gestures predominating. Qualitative analysis indicates that each gesture type plays a distinct role in organizing arguments, illustrating information, and establishing audience connection. These findings not only affirm that co-speech gestures are essential components of political communication but also

suggest applications in French language teaching, enhancing transmission effectiveness, encouraging interaction, and fostering intercultural communicative competence among learners.

REFERENCES

- [1] A. Kendon, *Gesture: Visible Action as Utterance*. Cambridge, U.K.; New York, NY, USA: Cambridge University Press, 2004.
- [2] D. McNeill, Gesture and Thought. Chicago, IL, USA: University of Chicago Press, 2005.
- [3] A. Kendon, "Geography of gesture," *Semiotica*, vol. 37, no. 1–2, pp. 129–163, 1981.
- [4] D. McNeill, Hand and Mind: What Gestures Reveal about Thought. Chicago, IL, USA: University of Chicago Press, 1992.
- [5] D. McNeill, Hand and Mind: What Gestures Reveal about Thought, New ed.. Chicago, IL, USA: University of Chicago Press, 1996.
- [6] J. Allwood, J. Nivre, and E. Ahlsen, "On the semantics and pragmatics of linguistic feedback", *Journal of Semantics*, vol. 9, no. 1, pp. 1–26, 1992. DOI: https://doi.org/10.1093/jos/9.1.1.
- [7] Q. Nguyen, Nonverbal Communication Across Cultures. Hanoi, Vietnam: Social Sciences Publishing House, 2008.
- [8] J. Cosnier, New Communicative Acts. Limoges, France: PULIM (Presses Universitaires de Limoges), 1997.
- [9] D. McNeill, Language and Gesture: Window into Thought and Action. Cambridge, UK: Cambridge Univ. Press, 2000.
- [10] J. Cosnier and J. Vaysse, New Semiotic Acts. Limoges, France: PULIM, 1997.
- [11] K. T. Do, "Turn-taking management of Vietnamese learners in exolingual discussions in French: A discourse-in-interaction analysis", Ph.D. dissertation, Université Lumière Lyon 2, Lyon, France, 2015.
- [12] J. Kormos, Speech Production and Second Language Acquisition. Mahwah, NJ, USA: Lawrence Erlbaum Associates, 2006.
- [13] P. Skehan, Ed., Processing Perspectives on Task Performance, vol. 5. Amsterdam, The Netherlands: John Benjamins Publishing Company, 2014.
- [14] J. Weissheimer and M. B. Mota, "Individual differences in working memory capacity and the development of L2 speech production", *Issues in Applied Linguistics*, vol. 17, no. 2, pp. 93–112, 2009. DOI: https://doi.org/10.5070/L4172005115
- [15] D. Frick-Horbury, "The use of hand gestures as self-generated cues for recall of verbally associated targets", American Journal of Psychology, vol. 115, no. 1, pp. 1-20, 2002. DOI: https://doi.org/10.2307/1423671
- [16] R. M. Krauss, Y. Chen, and R. F. Gottesman, "Lexical gestures and lexical access: A process model", *Language and Gesture Review*, vol. 261, no. 283, pp. 261–283, 2000. DOI: https://doi.org/10.1017/CBO9780511620850.017
- [17] P. Bull, "Nonverbal communication: The state of the art", *The Psychologist*, vol. 14, no. 12, pp. 644–647, 2001.
- [18] I. Poggi and C. Pelachaud, "Persuasive gestures and the expressivity of ECAs", *Journal of Embodied Communication in Humans and Machines*, vol. 2008, no. 1, pp. 391–424, 2008. DOI: https://doi.org/10.1093/acprof:oso/9780199231751.003.0017.