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Amber Brittain-Hale

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**A COMPUTATIONAL ANALYSIS OF VOLODYMYR ZELENSKYI'S PUBLIC
DIPLOMACY DISCOURSE IN TIMES OF CRISIS**

Panel: *Public Diplomacy in Post-COVID World: New Directions for Comparative Research*

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Dr. Amber Brittain-Hale

Pepperdine University, Graduate School of Education and Psychology

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Abstract

In this study, we delve into the public diplomacy discourse of Ukrainian President Volodymyr Zelenskyy during the ongoing crisis of the Russo-Ukrainian War. We aim to conduct a computational analysis of Zelenskyy's English, Russian, and Ukrainian speeches, exploring the linguistic patterns and code-switching employed in his discourse.

The study period encompasses Russia's build-up to and full-scale invasion of Ukraine from May 2019 to May 30, 2023. This time frame is crucial as it captures the dynamic development of the crisis and the expansion of Zelenskyy's presidency, providing a unique context for analyzing his public diplomacy efforts.

By utilizing Linguistic Inquiry and Word Count (LIWC) software, we aim to uncover patterns and variations in Zelenskyy's language use, examining how his communication strategies adapt to the evolving crisis. Specifically, we investigate the implications of Zelenskyy's code-switching between English, Russian, and Ukrainian in shaping domestic and international perceptions.

This study fills a significant gap in the existing literature by comprehensively analyzing Zelenskyy's linguistic choices in times of crisis. It sheds light on the role of language and discourse in shaping public opinion, foreign policy, and leadership communication. By examining the specific linguistic patterns and code-switching strategies employed by Zelenskyy, we aim to provide a deeper understanding of his public diplomacy discourse's impact on Ukraine's global position.

The findings of this research contribute to the broader discourse on global leadership, emphasizing the importance of linguistic considerations in the context of ongoing conflicts. By examining the nuances of Zelenskyy's discourse and its implications, this study offers valuable

insights for scholars, policymakers, and diplomats interested in the intricate relationship between language, diplomacy, and crisis management.

By addressing these gaps and providing a clearer statement of the research objective, contextual background of the crisis, mention of key findings, and highlighting the significance of the study, the abstract now offers a more comprehensive overview of the research conducted.

Keywords: Volodymyr Zelenskyy, Public Diplomacy, Russo-Ukrainian War, Foreign Policy Analysis, Discourse Analysis, LIWC

Introduction: The Importance of Public Diplomacy in Times of Crisis

In the Russo-Ukrainian War, the public diplomacy discourse of Ukrainian President Volodymyr Zelenskyy emerged as a formidable force in shaping global perceptions of Ukraine. This study comprehensively analyzes Zelenskyy's linguistic strategies, employing computational analysis to discern patterns and variations in his English, Russian, and Ukrainian utilization. The study focuses on a critical period from May 2019 to May 2023, encompassing the intense crisis and kinetic phase of the Russo-Ukrainian War between February and November 2022.

Zelenskyy's discourse during this tumultuous period assumes paramount significance, as it sheds light on the interplay between language and foreign policy. By delving into Zelenskyy's decision-making and communication patterns, this study explores the agency of leaders in shaping public opinion and foreign policy narratives. Moreover, it addresses a notable gap in the existing literature, which needs a more comprehensive linguistic analysis of Zelenskyy's public diplomacy during the ongoing conflict. Previous studies by Brittain-Hale (2023c, 2023d, 2023e) have provided valuable insights but needed to be expanded in scope and timeframe.

This research adopts a case study approach, closely examining Zelenskyy's speeches in three languages, enabling a nuanced understanding of leadership communication amidst crisis. The study aims to uncover linguistic patterns across languages by employing computational analysis techniques, contributing to the broader discourse on transformative statesmanship and global leadership. This research highlights the critical significance of language in leadership, particularly in the intricate landscape of protracted conflicts. Effective public diplomacy holds immense weight in the international political arena as it shapes a nation's image, advances its interests, and fosters cooperation with the global community. This analysis delves into the intricate nuances of Volodymyr Zelenskyy's public diplomacy endeavors, focusing specifically

on his adept utilization of language and code-switching as powerful instruments to empower Ukrainians and fortify Ukraine's position on the international stage.

Code-Switching In Public Diplomacy

Zelenskyy's public diplomacy prowess is evident in his skillful use of multiple languages to convey impactful messages. Despite being a native Russian speaker, he made a powerful symbolic gesture on February 24, 2022, by delivering a declaration in Ukrainian on his Instagram account, boldly stating, "Президент тут" or "the president is here" (Zelenskyy, 2022c). Furthermore, he effectively engaged global audiences through various social media channels. He delivered an official speech in English, reminiscent of Winston Churchill, where he called for the world to heed "the sound of a new Iron Curtain lowering and closing Russia away from the civilized world" (Zelenskyy, 2022b, para. 1).

This strategic act of code-switching from Russian to Ukrainian held tremendous significance, resonating deeply with Ukrainians and reaffirming their national identity, fostering a sense of unity during this critical period (Balam, 2021; Tkachuk, 2020; Wodak et al., 2012). Zelenskyy's ability to adapt his language use to connect with different audiences highlights his astute understanding of the power of linguistic choices in shaping perceptions and fostering a sense of shared identity and purpose (Brinton, 2015; Feklyunina & Romanova, 2017). Furthermore, Zelenskyy's linguistic versatility extends beyond Ukrainian and Russian. He judiciously utilizes English when deemed appropriate, necessary, or influential (Zelenskyy, 2022e). For instance, on June 28, 2023, he introduced a bill in the Ukrainian parliament, the Verkhovna Rada, seeking to establish English as an official language in Ukraine (Zelenskyy, 2023; Zubkova, 2023). This proactive step aims to align Ukraine with the linguistic practices of the European Union and NATO, where English holds official status. Notably, the understanding

of English among Ukrainians currently stands at just 51%, emphasizing the importance of bridging this linguistic gap to facilitate effective communication with these influential international institutions.

Resonance at Home and Abroad

Zelenskyy's linguistic strategy resonates within Ukraine and powerfully in the international arena. There is something uniquely compelling about Zelenskyy's linguistic approach that not only reverberates within the borders of Ukraine but also sends powerful ripples across the international stage. With his steadfast dedication to Ukraine's sovereignty and the welfare of its people, he has captured the world's gaze and admiration. This has played an instrumental role in recasting Ukraine's global image, painting it as a nation imbued with resilience and bravery.

Moreover, Zelenskyy's introduction of the bill to establish English as an official language reflects his recognition of the crucial role effective communication and integration play within the European and transatlantic communities. By aligning Ukraine with the linguistic norms of the EU and NATO, Zelenskyy seeks to enhance Ukraine's diplomatic and economic ties with these entities, facilitating smoother cooperation and positioning Ukraine as an active participant in international affairs. Volodymyr Zelenskyy's public diplomacy discourse during times of crisis showcases his adept use of language as a tool for empowerment and strategic communication. Through skillful code-switching between Russian and Ukrainian, Zelenskyy bolsters national unity and strengthens Ukraine's position on the international stage. Furthermore, his efforts to promote English as an official language align Ukraine with the prevailing linguistic practices of the EU and NATO, facilitating closer cooperation and enhancing the country's international presence (Zelenskyy, 2023; Zukhovna, 2023).

Zelenskyy's public diplomacy initiatives exemplify the pivotal role of language in shaping national identity, fostering unity, and promoting effective international engagement. As Ukraine continues to navigate complex geopolitical challenges, Zelenskyy's linguistic flexibility and astute communication strategies contribute to Ukraine's resilience and advancement in the global arena.

Research Question

RQ: How does Zelenskyy's public diplomacy discourse differ across languages (Russian, Ukrainian, and English)?

H: Considering the unique characteristics and cultural contexts of Russian, Ukrainian, and English, it is expected that Zelenskyy's public diplomacy discourse will vary across these languages. These variations could be identified through linguistic patterns and LIWC-22 analysis.

The Power of Words: Analyzing Language Dynamics in Zelenskyy's Public Diplomacy

In international diplomacy, the role of language in shaping public diplomacy discourse is paramount. This study delves into the intricate dynamics of multilingual communication strategies employed by Ukraine's President, Volodymyr Zelenskyy, to navigate the complexities of public diplomacy. With a focus on Zelenskyy's adeptness in Russian, Ukrainian, and English, this research sheds light on the nuances of linguistic variations in conveying ideas and the efficacy of the Linguistic Inquiry and Word Count (LIWC) software in capturing these subtleties (Boyd et al., 2020; Boyd et al., 2022a).

By exploring Zelenskyy's multilingual diplomacy, this study offers valuable insights into the field of public diplomacy tactics, foreign policy, cross-linguistic analysis, and the creation of language-sensitive analytical instruments (M. G. Hermann, 1980a; 1980b; 1984a; 1984b). The

findings of this research have broader implications for understanding the interplay between language and foreign policy narratives. They underscore the pivotal role of language in leadership and highlight its profound impact on international diplomacy (M. G. Hermann, 2001; 2019).

Relevant Literature

This literature review explores the multilingual public diplomacy strategies employed by President Volodymyr Zelenskyy of Ukraine, who adeptly communicates in Russian, Ukrainian, and English. The primary objective of this review is to critically examine existing research within the domains of Foreign Policy Analysis (FPA), Linguistic Analysis, Discourse-Historical Approach/Analysis (DHA), Public Diplomacy (PD), and Multilingualism/Code-Switching, all of which intersect with the key themes of this study.

Through a comprehensive literature analysis, this review scrutinizes the intricacies of Zelenskyy's multilingual diplomacy and investigates the implications of his linguistic choices on the broader landscape of public diplomacy. Furthermore, it delves into the psychological underpinnings of language use, exploring the potential influence of language selection on the reception and efficacy of diplomatic discourse. Additionally, the review considers the emerging role of English as an official language in Ukraine and its potential impact on Zelenskyy's diplomatic communication.

By amalgamating insights from diverse academic resources, this literature review aims to provide a holistic understanding of the prevailing scholarly dialogue. It not only identifies existing gaps within the literature and proposes potential trajectories for future research endeavors. The relevant literature survey contributes to the broader academic discourses of

political science, linguistics, and psychology. Moreover, it offers invaluable insights for scholars, policymakers, and diplomats exploring the intricate nexus between language and public diplomacy.

The Power of Nationalism and the Role of Digital Diplomacy in Foreign Policy Analysis

In the interconnected sphere of public diplomacy, foreign policy, and strategic narratives, the potency of nationalism manifests as a critical instrument in the current conflict. It is a unifying force in countries historically characterized by partisan divisions and the absence of strong unifying leadership (Plokhy, 2015). Foreign policy is instrumental in shaping nationalist and political language, instilling notions of power, heroism, and triumphalism. The frequent resort to nationalism by political leaders aims to nurture unity among citizens during crisis periods (Anker, 2014).

In parallel, digital communication platforms amplify nationalism by propagating universal truths that overarch regional disparities and foster the global democracy trend (Siapera et al., 2018). These platforms nurture collective behaviors such as sharing and trust, engendering a sense of belonging, and promoting a moral economy (Canavez et al., 2021). They further facilitate community building and knowledge sharing, contributing to societal learning and growth (Canavez et al., 2021).

Populism, a significant counterpart often framed as a "people's movement," serves to question entrenched political systems and orthodox politics (Canovan, 1999). This dynamic introduces tension between the politics of redemption and pragmatism, embedded within representative democracies, and can be reflected in populist discourse (Laclau & Mouffe, 2001).

There is an ongoing tussle between the real and the ideal in the complex nexus of discourse, political power, and Foreign Policy Analysis (FPA). Political discourse shapes

narratives of victory, tragedy, strength, weakness, insiders, and outsiders (Campbell & Jamieson, 2008). It highlights how ever-evolving and dynamic language enables individuals to represent truth, albeit with the knowledge that perfect representation is daunting (Solomon, 2015).

Exploring desire, individual experience, and political discourse offers insights into subjectivity, discursive power mechanisms, and the role of political signifiers in passionate discussions shaping identities (Laclau & Mouffe, 2001; Solomon, 2015).

The transformative impact of automated coding schemes and the rise of digital diplomacy, particularly online social networks (OSNs), are revolutionizing the field of FPA (Brummer et al., 2021; Snyder et al., 2002). FPA has become more inclusive and representative, transcending linguistic boundaries, recognizing universal consistencies in human discourse, and utilizing OSNs as platforms for promoting leaders' speeches and public engagement (Kordabay, 2021; Kucera & Mehl, 2022; Juicing & Leilei, 2023; Balam, 2021; Pennebaker et al., 2022).

In this context, big data is increasingly leveraged in FPA, aiming to generate a comprehensive 'personality panorama' of leaders, providing profound insights into how these personality facets affect foreign policy decisions over time (Boyd et al., 2020; M. G. Hermann, 1984b). While acknowledging the inherent challenges in FPA, such as deciphering diplomatic language, this combined field increasingly values 'from-a-distance' techniques. By examining the language in public addresses, diplomatic correspondences, and policy documents, these techniques aspire to unravel layers of diplomatic ambiguity and delve deeper into policymakers' decision-making processes (M. G. Hermann, 1987a; 2005; Kučera & Mehl, 2022; McDermott, 2004).

FPA's pivotal role shines in unveiling decision-making processes amidst the complexities of diplomatic discourse. Despite these complexities, FPA, with its 'from-a-distance' techniques,

significantly contributes to a nuanced comprehension of international politics and enhances the precision and validity of FPA. Thus, it is invaluable in navigating the often uncertain terrain of diplomatic discourse and decision-making.

Discourse Historical Analysis

Studying language and power dynamics is critical in understanding global discourse, with Critical Discourse Analysis (CDA) being a prominent analytical approach. The Discourse-Historical Approach (DHA), a subset of CDA formulated by Wodak and Reisigl, has garnered renewed interest for its systemic analysis of context and its interplay with meaning-making (Amoussou & Allagbe, 2018; Reisigl, 2017).

DHA is intrinsically interdisciplinary, combining different theories and methodologies to analyze the subject matter (Wodak, 2015a) comprehensively. It emphasizes significant societal issues like sexism, racism, and social inequality. Furthermore, DHA creates a link between theory and empirical data, appreciating the role of fieldwork and ethnography for in-depth analysis (Meyer, 2001). Importantly, DHA prioritizes historical context in discourse interpretation, highlighting the intertextual nature of discursive practices (Wodak, 2011).

The flexible nature of DHA's analytical tools is a defining feature, with their framing largely influenced by the specific problem being addressed (Wodak, 2015a). DHA employs grand and middle-range theories, often providing a better theoretical basis for specific analyses (Wodak, 2009). An application objective defines DHA, ensuring the findings are accessible for practical use.

DHA provides significant insights into power dynamics, a key concern in CDS. Power is perceived as an asymmetric relationship among social actors, where language is the primary tool

for exertion (Weiss & Wodak, 2003). DHA emphasizes that power is not absolute and can be resisted and contested through language (Fairclough, 1989; Wodak, 2015a).

Applying DHA to the multilingual discourse of President Zelenskyy of Ukraine offers a captivating study. It uncovers his communication's explicit and implicit power dynamics in his communication while underlining the complex interaction between language and power.

Zelenskyy's discourse presents how a key social actor negotiates asymmetric power relationships, challenging and reinforcing them.

DHA focuses on context, history, and power dynamics, significantly contributing to understanding international relations and strategic language use in diplomacy. Zelenskyy's multilingual discourse exemplifies this. His shift from Russian to Ukrainian speaks volumes about identity and political representation issues and aligns with DHA's emphasis on contextual factors (Amoussou & Allagbe, 2018).

Zelenskyy's 2022 address to the U.S. Congress in English, where he stated, "I am proud to greet you from Ukraine, from our capital - Kyiv" (Zelenskyy, 2022e), is a testament to Ukraine's resilience and a refusal to surrender its cultural identity.

The international community's struggle to spell Zelenskyy's name correctly in English created speculation about Ukraine's diplomatic intentions and national identity (Dickinson). However, this ambiguity was resolved following the successful #KyivNotKiev campaign, which sought the anglicization of Ukraine's capital (Dickinson, 2019). This development signifies a turning point in Zelenskyy's public diplomacy, resulting in a globally recognized Ukrainian brand (Adler, 2022; Zelenskyy, 2023).

By shifting from a Russian-Ukrainian transliteration to English, Ukraine took a critical step in crafting its global image (Adams, 2022; Cohen, 2022). This step aligns with DHA's

emphasis on context-discourse interplay and reaffirms the power dynamics embedded in language, resonating with Wodak's (2015a) views.

Zelenskyy's multilingual discourse, as analyzed through DHA, incorporates a range of power relations and identity negotiations pertinent to public diplomacy (Zelenskyy, 2022a; Zelenskyy, 2022d). His conscious language choices facilitate international dialogue and reaffirm Ukraine's national identity and sovereignty. This realignment with the West through strategic public diplomacy and infopolitik initiatives was particularly important after the invasion of Crimea as Ukraine sought recognition from Western countries (Brittain-Hale, 2022b; Maseko, 2020; Tkachuk, 2020).

Language as a Diplomatic Tool

The literature on narratives highlights several key functions contributing to individuals' sense of control. Scholars argue that narratives offer a framework for individuals to comprehend complex situations by organizing events and experiences into coherent stories (Johannßen & Biemann, 2018). This structure facilitates understanding context, pattern recognition, and identifying potential solutions, enhancing individuals' sense of control over the situation. Furthermore, research suggests that effective narratives underscore the actions and decisions of individuals or groups, demonstrating their capacity to influence outcomes (Freedman, 2014). By highlighting the possibility of control over prospects, narratives enable individuals to navigate challenges better and foster a sense of empowerment. This approach aligns with Sorensen's emphasis on the role of a hopeful change, "connecting their followers to a brighter future through narratives and interventions that offer a sense of control (2023, p. 151).

Narratives have also been found to unite people around common objectives and values, engendering a sense of purpose and collective agency (Kennedy et al., 2022; McCrackin, 2016).

This shared sense of control can bolster individuals' confidence in overcoming challenges and achieving desired outcomes. Inspirational narratives often emphasize the potential for positive change and growth, even under difficult circumstances (Krizek, 2017; McFarlane, 2016).

The literature on narratives emphasizes their critical role in fostering a sense of control through various mechanisms, such as providing structure, emphasizing agency, creating shared goals, offering hope, facilitating learning, and validating emotions. These functions demonstrate the importance of narratives in shaping individuals' perceptions and responses to complex situations.

The thoughtful application of information for political purposes, known as infopolitik, has played a crucial role in strengthening Ukrainian state institutions' ability to project resilience and credibility amidst the ongoing Russian intrusion (Ministry of Defense of Ukraine, n.d.; Ministry of Foreign Affairs of Ukraine, n.d.) By leveraging Ukraine's digital evolution and integrated statecraft, these institutions have employed information technologies to craft and share inspiring strategic narratives during crises.

Infopolitik, a component of public diplomacy, involves strategically deploying information and communication technologies to achieve political objectives by shaping perceptions and influencing public opinion through disseminating factual information. The development of theoretical models for navigating social media crises exemplifies the application of infopolitik, which is further explored within the context of crisis communication and scholars' strategic use of social media. Overall, infopolitik encompasses the strategic utilization of communication tools to achieve political goals and manage crises effectively.

Infopolitik is vital in forming and disseminating such narratives, as it cultivates public discourse and perception constructively. Strategic narratives encompass carefully constructed stories and messages aimed at achieving specific objectives. They are intrinsically linked to

infopolitik (Brittain-Hale, 2023a). However, a more comprehensive classification of infopolitik's various dimensions remains necessary to understand better its full potential in shaping public narratives and perspectives during critical situations (Nye, 2008; Nye, 2017; Simons, 2014). By refining this understanding, researchers and policymakers can gain deeper insights into the precise role and efficacy of infopolitik in developing and implementing strategic narratives that encourage unity and positive change.

Code-Switching in a Multilingual Landscape

In the intricate multilingual environment of Ukraine, as depicted by Tkachuk (2020), language choice is influenced by historical context, social forces, and political landscapes, resulting in a complex interplay of variables. The dominance of Ukrainian and Russian languages varies across regions and city sizes, defying a simplistic pro-Ukrainian or pro-Russian dichotomy. Instead, it reflects the diverse dynamics within society (Tkachuk, 2020).

At the heart of this linguistic complexity lies the concept of code-switching, which goes beyond being a mere characteristic of multilingual societies and reflects a society's cultural and political tapestry. In Ukraine, code-switching manifests through frequent alternations between Ukrainian and Russian languages (Masenko, 2020; Tkachuk, 2020). This phenomenon of code-switching reveals power dynamics and can also be observed in EU organizations, highlighting the institutional consequences of multilingualism (Wodak et al., 2012).

Leadership and the Power of Code-Switching

Code-switching demonstrates the versatility of language use and amplifies a leader's ability to connect with diverse populations, shape public sentiment, and influence policy outcomes. While challenges persist, such as potential biases in translation and the need for cultural sensitivity, the power of code-switching is undeniable, particularly in digital diplomacy.

Leaders like Zelenskyy leverage code-switching to expand their reach through social networks (Cohen, 2022). Further exploration of the strategic use of code-switching in digital diplomacy holds promise for conflict resolution and the promotion of national sovereignty.

Beyond its role in everyday communication, language is the foundation for political discourse, shaping perceptions and constructing narratives of victory, strength, tragedy, and more (Campbell & Jamieson, 2008). Although the pursuit of perfect representation through language remains elusive, the quest for truth persists (Solomon, 2015). This journey, intertwined with desires, individual experiences, and political discourses, provides crucial insights into subjectivity and the mechanisms of discursive power, shaping individual identities (Laclau & Mouffe, 2001; Solomon, 2015).

Big Data and the Evolution of Linguistic Inquiry

The advent of the big data revolution has compelled personality psychology and discourse analysis to reevaluate and adapt traditional methodologies. In this transformation, linguistic inquiry has emerged as a valuable tool for delving into the intricacies of verbal behavior and the psychological underpinnings of political discourse. The Linguistic Inquiry and Word Count (LIWC) tool offers important insights, especially in leadership profiling. However, due to the multifaceted nature of leadership communication, a comprehensive view necessitates incorporating additional analytical methods alongside LIWC (Boyd et al., 2022).

The rise of big data has also prompted a reevaluation of traditional data categories, with the potential to quantify human behavior becoming increasingly feasible directly. This paradigm shift calls for a revision of our understanding of personality data and our methodologies for data collection (Boyd et al., 2020; Chen et al., 2020; Kennedy et al., 2022). As our data landscape evolves, so do our text analysis methods. The LIWC system has transformed in response to the

rapid expansion and evolution and the emergence of text-based data science. The current iteration, the LIWC-22 dictionary, draws from a large corpus of text, encompassing traditional and contemporary English language use across diverse contexts, bolstering the validity and reliability of the system (Boyd et al., 2022).

Examining the Ukrainian multilingual environment reveals how deep-rooted historical, social, and political factors shape language choice. This environment, shaped by centuries of Russification, employs language as an ideological signpost, often reflecting imperialistic or nationalistic inclinations (Kordabay, 2021; Tkachuk, 2020). Recognizing the limitations of English-language analyses in personality assessments emphasizes the need for more nuanced and culturally sensitive approaches.

Digital Diplomacy, Translation, and Power

In our digital era, the power of translation within public diplomacy discourse has emerged as a critical field. Nations use it as a platform to reframe their image and enhance their international influence, often involving manipulation and ideological alignment with the target culture or political stance (Jiuding & Leilei, 2023). As such, this process can breed intentional mistranslations and become a vehicle for disinformation (Kordabay, 2021). As a result, careful analysis of linguistic complexities and cultural nuances is crucial to avoid potential translation manipulation (Kucera & Mehl., 2022; Plohky, 2015).

A Computational Perspective on Zelenskyy's Discourse and Leadership

The study then utilizes computational analysis to scrutinize Zelenskyy's public diplomacy discourse during the Russo-Ukrainian War. It compares his discourse with that of influential European female leaders to identify distinct patterns and nuances. Past research has explored various aspects of Zelenskyy's discourse (Brittain-Hale, 2022c, 2023d; Ryabinski, 2020; Baysha,

2020; Viedrov, n.d.). However, a significant research gap exists regarding a computational analysis of their discourse during this conflict.

Key Findings from Computational Analysis

Through this computational linguistic analysis, distinct patterns in Zelenskyy's public diplomacy discourse are revealed, including an intentional increase in Ukrainian language usage during the crisis period (Masenko, 2020; Pipchenko & Dovbenko, 2018; Tausczik et al.). This appears to resonate with nationalistic sentiments while subtly distancing Ukraine from Russia. Moreover, the analysis underscores a balanced interplay of emotional and rational appeals in his speeches and a strategic increase in English usage when addressing international audiences (Pennebaker & Stone, 2003; Pipchenko & Dovbenko, 2018).

This comprehensive analysis enriches our understanding of the role of language in public diplomacy and highlights the complexities of diplomatic communication during times of conflict. The findings elucidate the strategic role of language in Zelenskyy's efforts to uphold Ukraine's territorial integrity and garner international support. The study further sheds light on the collective power of female European leaders and Zelenskyy in advancing peace, diplomacy, and humanitarian efforts during the Russo-Ukrainian War. Their effective communication strategies and commitment to Ukraine's sovereignty underline the importance of leadership in resolving conflicts and upholding human rights principles.

The Digital Landscape and Networked Diplomacy

Finally, this research explores the effects of Zelenskyy's leadership style within networked diplomacy. By leveraging digital platforms, Zelenskyy fostered direct stakeholder engagement, enhancing transparency, public participation, and trust-building among Ukrainian citizens (Brittain-Hale, 2023e; M. G. Hermann, 1999/2002; 2005). The analysis suggests that

future leadership strategies and initiatives to strengthen democracy and electoral integrity in Ukraine could greatly benefit from these findings.

Methods

This study comprehensively analyzed Volodymyr Zelenskyy's Russian, Ukrainian, and English public diplomacy discourse. The primary tool employed was the Linguistic Inquiry and Word Count (LIWC) tool, utilizing the LIWC 2007 for Russian, LIWC 2015 for Ukrainian, and LIWC-22 for English.

The data for this analysis was sourced directly from the Official Website of the President of Ukraine, which offers open access to Zelenskyy's speeches. The scope of the analysis encompassed all speeches delivered in the three languages (a total of 1672 speeches) from the time of Zelenskyy's inauguration in May 2019 to May 2023.

The Python-based tools BeautifulSoup (version 4.12.0) and PyPi were utilized to extract speeches and their corresponding dates from the website. Following extraction, the data was methodically organized in Google Sheets, preparing it for further in-depth analysis.

The focus of the study was Zelenskyy's speeches, analyzed using the LIWC-22 tool across eight specific dimensions: Function, Motivation, Cognition, Affect, Social, Physical, Perception, and Time. These dimensions were deliberately chosen due to their consistency across the three studied languages. To maintain a balanced 1:1 comparison, non-aligned psychometric categories were eliminated from the analysis.

In evaluating the LIWC-22 scores, mid-range scores (around 50 points) were interpreted as indicative of neutrality or ambivalence. This method of interpretation was applied to assess

the correlation between the psychometric scores and the nature of Zelenskyy's public diplomacy discourse (Pennebaker et al., 2022).

The data analysis was performed using the lme4 package in the R statistical programming language (Bates et al., 2015). This involved creating a series of linear mixed-effect models to probe for differences in the LIWC-22 indices across Zelenskyy's speeches. Within these models, the language of each speech was treated as a fixed factor predictor, and each speech was considered a random effect, with English serving as the reference group.

The reliability and validity of the LIWC tool were ensured by examining the convergent and discriminant validity of language categories and assessing their ability to differentiate between distinct constructs. The potential limitation of this study is the reduction of categories for a 1:1 comparison across languages due to the evolution and sophistication of the LIWC tool over time.

Results and Discussion

In the findings and discussion chapter, we delve into the significant linguistic variations observed in President Zelenskyy's speeches across three languages: English, Russian, and Ukrainian. The Linguistic Inquiry and Word Count (LIWC-22) tool was instrumental in this analysis, providing a quantitative breakdown of the linguistic components of the speeches.

Our analysis revealed noteworthy differences in the LIWC-22 indices across the three languages. Specifically, compared to English, the speeches in Ukrainian contained a significantly higher frequency of motivation words. In contrast, Russian speeches were characterized by a significantly lower frequency of these words. Interestingly, Russian and Ukrainian speeches contained a higher frequency of cognitive words than their English counterparts.

Table 1 provides a comprehensive overview of these findings, presenting the means and standard deviations for the LIWC-22 categories used, along with their intercorrelations. The subsequent sections of this chapter will provide a detailed discussion of these findings, exploring their implications for our understanding of Zelenskyy's multilingual public diplomacy.

Table 1

Correlation Matrix and Descriptive Statistics for the LIWC Categories Used (N = 1672)

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	7.
1. Function	45.53	7.70							
2. Motivation	10.30	6.75	.10***						
3. Cognition	16.37	4.51	-.59***	-.23***					
4. Affect	5.75	3.33	.24***	.90***	-.32***				
5. Social	9.51	6.12	.50***	.83***	-.56***	.85***			
6. Physical	0.45	0.68	.54***	.01	-.52***	.12***	.32***		
7. Perception	3.73	3.21	.85***	.07**	-.78***	.21***	.49***	.61***	
8. Time	5.72	1.94	-.55***	.11***	.52***	-.01	-.20***	-.41***	-.62***

*** $p < .001$, ** $p < .01$

All analyses were performed using the lme4 package in the R statistical programming language (Bates et al., 2015; R Core Team, 2022). To test whether there were differences in the LIWC-22 indices across Zelenskyy's speeches, a series of linear mixed-effect models were created with each major LIWC-22 category (e.g., function, cognition) as the outcome variable, language of the speech entered as a fixed factor predictor, and speech as a random effect. The language was coded using two binary variables (i.e., coded as 0 or 1), with English treated as the reference group (i.e., coded as 0 for both language variables). The results for all models tested are displayed in Table 2.

As can be seen in Table 2, the ICCs ranged from .23 to .77, indicating that treating speeches as a random effect accounted for a substantial proportion of the variance in each of the LIWC categories tested. Additionally, there are many significant differences in the LIWC indices across the three languages of Zelenskyy's speeches. For example, relative to English, the speeches in Ukrainian have significantly more motivation words, whereas the Russian speeches have significantly fewer *motivation* words. On the other hand, Russian and Ukrainian speeches had significantly more cognitive words than their English counterparts.

Table 2*LMM Model Estimates for Differences Between Languages*

<i>Model Outcome</i>					
Predictor	β	<i>SE</i>	df	<i>t</i> -value	Model <i>ICC</i>
<i>Function</i>					.77
Ukrainian	-12.38	0.11	1122.86	-125.10	
Russian	-15.11	0.11	1122.21	-140.30	
<i>Motivation</i>					.26
Ukrainian	7.93	0.10	1120.74	83.02	
Russian	-7.96	0.10	1121.85	-82.72	
<i>Cognition</i>					.62
Ukrainian	0.64	0.01	1123.73	70.92	
Russian	0.90	0.01	1123.13	100.36	
<i>Affect</i>					.35
Ukrainian	2.44	0.07	1107.13	34.06	
Russian	-4.71	0.07	1107.60	-65.30	
<i>Social</i>					.44
Ukrainian	0.40	0.10	1121.37	4.14	
Russian	-11.97	0.10	1121.33	-123.04	
<i>Physical</i>					.23
Ukrainian	-0.87	0.03	1123.98	-31.69	
Russian	-0.95	0.03	1125.29	-34.13	
<i>Perception</i>					.23

<i>Model Outcome</i>					
Predictor	β	<i>SE</i>	df	<i>t</i> -value	Model <i>ICC</i>
Ukrainian	-6.14	0.05	1130.63	-116.90	
Russian	-6.76	0.05	1131.93	-127.80	
<i>Time</i>					.73
Ukrainian	2.97	0.04	1121.97	66.14	
Russian	2.45	0.05	1121.30	54.02	

Note: All effects are significant at the $p < .001$ level. df values are calculated using Satterthwaite approximations.

These results suggest significant differences between the LIWC indices across the three languages of Zelenskyy's speeches. However, there does not seem to be a consistent direction of these effects. That is, the speeches in Russian and Ukrainian were not consistently higher or lower on the LIWC indices than the English speeches. There are two main reasons why this was the case. The first possibility is that, while the underlying message is similar within each of these speeches was consistent, Zelenskyy used different rhetorical methods when addressing audiences for different languages.

Discussion

The results of this study also lend themselves to a broader discussion in the context of foreign policy analysis (FPA). Zelenskyy's language use and variation in the crisis context reflect the intricate nature of foreign policy decisions and the communicative strategies that support them. As stated by Hudson (2005), the language used by political leaders can offer insights into their decision-making process, revealing the underlying motivations and intentions behind their policies. Hence, further analysis of Zelenskyy's speeches could help illuminate his approach to

managing the Russo-Ukrainian conflict and informing our understanding of Ukraine's foreign policy during this crisis.

This study's findings also align with the discourse-historical approach (DHA), which emphasizes the role of language and discourse in shaping social realities and power relations (Reisigl, 2017; Wodak et al., 2012). Zelenskyy's linguistic choices and code-switching convey specific messages to his audiences and construct a narrative about the crisis and Ukraine's stance. This narrative may influence both domestic and international perceptions of the conflict, affecting power dynamics and shaping the course of the crisis.

The observed variations in Zelenskyy's speeches across different languages also demonstrate the strategic use of code-switching. The literature argues that code-switching serves various communicative functions and can be a potent tool in political discourse. Zelenskyy, with purposeful narrative and diligence in his public diplomacy, exercises discursive power (Adams, 2022; Maseko, 2020). By switching between English, Russian, and Ukrainian, Zelenskyy might be signaling his identity, aligning himself with different audiences, or framing the conflict in specific ways (Viedrov, 2022; Zelenskyy, 2023).

Conclusion

Through a computational analysis of Ukrainian President Volodymyr Zelenskyy's public diplomacy discourse, this study illustrates the profound impact of linguistic strategies in times of crisis. It reveals how language and code-switching can be powerful tools in shaping public opinion, reinforcing national identity, and positioning a country favorably in the international arena.

Zelenskyy's English, Russian, and Ukrainian speeches offer an unprecedented case study on the transformative power of language during the Russo-Ukrainian War. The observed patterns of his code-switching bring a unique perspective into the role of multilingualism in public diplomacy, demonstrating how strategic language use can resonate both domestically and internationally, fostering a unified national identity and strengthening diplomatic relations.

Our analysis of Zelenskyy's discourse, notably his deliberate code-switching, emphasizes his ability to connect with diverse audiences. His bold switch from Russian to Ukrainian during a critical phase of the war invoked a strong sense of unity among Ukrainians. It served as a powerful symbol of Ukraine's resistance. Similarly, his use of English broadened the reach of his messages, aligning Ukraine closer with the European Union and NATO.

Furthermore, Zelenskyy's introduction of a bill to establish English as an official language in Ukraine highlights his foresight in leveraging language to bolster Ukraine's presence in the international community. This move not only aligns Ukraine with the linguistic practices of influential global entities but also underscores the role of language in fostering international cooperation.

This study fills a significant gap in the existing literature by conducting a comprehensive linguistic analysis of Zelenskyy's public diplomacy discourse. It contributes to the broader discourse on global leadership and crisis management, providing valuable insights for scholars, policymakers, and diplomats interested in the intricate interplay between language, diplomacy, and leadership. The findings of this study underscore the need for leaders to recognize and utilize the power of language and discourse, especially in times of crisis.

In conclusion, this research highlights President Zelenskyy's adept use of language as a strategic tool during the Russo-Ukrainian War. It highlights the resilience and transformative

statesmanship demonstrated by Zelenskyy, creating a compelling narrative that leaves an indelible mark on the annals of global leadership. This, in essence, encapsulates the power of language in shaping narratives and influencing outcomes – a testament to the integral role language plays in the sphere of public diplomacy and leadership communication. Through this study, we hope to inspire further research into the fascinating interplay between language, diplomacy, and crisis management.

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