



Hashtags as Digital Cohesion: Thematic Organization and Cultural Reference in Instagram Posts by Kurdish Users

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Abstract in English

This study investigates the role of hashtags as cohesive devices in Instagram discourse among Kurdish users by adopting Halliday and Hasan's (1976) Systemic Functional Linguistics (SFL) framework. Hashtags have been widely studied for their interpersonal and ideational functions. However, their specific role in realizing the textual metafunction, organizing discourse, and creating cohesion has received less attention. In order to address this gap, a mixed-method analysis of 200 publicly accessible Instagram posts, was conducted. The analysis focused on reference, substitution, ellipsis, conjunction, lexical cohesion, and thematic organization. The findings reveal that the role of hashtags is central in creating digital cohesion. They operate primarily through lexical cohesion (repetition, synonymy, and collocation), exophoric reference (anchoring discourse in shared cultural and geographic knowledge), and thematic organization (explicitly marking the topic of a post). Ellipsis and conjunction were also present but they were less frequent. Substitution was not found which confirms its rarity in digital discourse. All these patterns highlight that the grammar of hashtags is essentially accumulative and layering meaning. It reinforces cultural identity and appears to contribute to visibility within the platform's algorithmic logic. Hashtags are not mere metadata but they function as crucial linguistic resources that transform individual posts into a more coherent and culturally resonant digital discourse. By applying the SFL-based cohesion theory to Instagram, this research offers a precise understanding of how cohesion is achieved online through short-form, multimodal texts.

Paper Info

Keywords

*Hashtags,
Cohesion, Systemic
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Linguistics, Textual
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Digital Discourse,
Instagram*

1. Introduction

Cohesion is a key aspect of discourse. It helps readers understand texts as unified and meaningful by creating links between their constituent elements (Halliday & Hasan, 1976). In digital communication, especially on platforms like Instagram, these cohesion cues are crucial because posts are often brief and multimodal as they mix text, images, hashtags, and more into one message (Zappavigna, 2012). On Instagram, each post combines visual content, such as an image or a video, with a caption that frames or contextualizes the visual. Embedded within these captions are hashtags. A hashtag is defined according to Laucuka (2018) as a word or phrase preceded by a hash sign (#) used on social media websites and applications like Instagram and Twitter to identify messages on a specific topic.

In these short but expressive captions, Zappavigna (2015) states that hashtags have grown beyond simple metadata for searchability. Research shows they act as active language tools that organize information and maintain cohesion. Hashtags serve as thematic markers that direct reader focus and identify the main topic of a post (Rathnayake & Suthers, 2018). They also connect content to larger cultural discourses and create lexical cohesion through repetition, synonym, or collocation (Muttapien et al., 2023). From a Systemic Functional Linguistics (SFL) viewpoint, hashtags mainly represent the textual metafunction, which organizes discourse through thematic structure and cohesive ties (Halliday & Hasan, 1976; Halliday & Matthiessen, 2004). Their position in a caption further affects emphasis and the information structure.

Most studies have focused on the interpersonal (e.g., community-building) and ideational (e.g., topic labeling) metafunctions of hashtags despite recognizing their multiple roles. As a result, their function as textual cohesive devices—creating unity in digital texts—has not been thoroughly examined (Mahfouz, 2020). This gap is particularly important in contexts like Instagram discourse among Kurdish users, where the language's unique structural features might affect how hashtags organize discourse. Moreover, while hashtags have been studied for their role in social interaction and marketing, their potential as cohesive devices have received little scholarly interest. Short-form digital texts, such as Instagram captions, depend on cohesion for clear meaning. Still, the role of hashtags in sustaining textual unity needs more exploration. Zappavigna (2015) and Page (2012) believe that existing studies often cover multiple functions or general hashtag usage but rarely focus on their textual role. Additionally, Instagram captions, with their distinct mix of brevity, visuals, and informal style, have not been extensively researched regarding cohesion.

This study aims to fill this gap by systematically analyzing Instagram hashtags posted by Kurdish users through an SFL framework. It focuses on their textual cohesive functions—reference, conjunction, lexical cohesion, and thematic organization—illustrating how hashtags shape discourse and enhance cohesion. By doing this, it broadens the application of cohesion theory to digital, multimodal texts and contributes to a better understanding of the textual metafunction in online communication.

To guide this investigation, the study addresses the following research questions:

1. What types of textual cohesive devices do hashtags perform in Instagram captions?
2. How do hashtags contribute to theme and information structure in captions?

3. Which textual cohesive functions are most frequent in Instagram captions?
4. What implications do these findings have for understanding digital discourse cohesion?

Kurdish users post their captions mainly in three languages: Kurdish, Arabic, and English. This study focuses on captions containing English-language hashtags, acknowledging that Kurdish and Arabic hashtags may reflect different cohesive practices that are beyond the current scope. The analysis centers on the textual dimension of hashtags as cohesive devices rather than attempting to capture the full multimodal meaning-making of Instagram posts. This research is expected to contribute to both digital discourse analysis and SFL by highlighting the textual cohesive functions of hashtags in Instagram captions. It provides empirical data for applying SFL in online discourse, guides effective communication and hashtag use in digital media, and deepens the understanding of cohesion in multimodal and short-form discourse.

2. Literature Review

This section examines how language functions online. It explores the role of the textual metafunction in organizing information and how hashtags support cohesion in social media posts.

2.1 Digital Discourse

Digital discourse involves language use in online environments, including platforms like email, forums, blogs, and social media (Herring, 2013; Barton & Lee, 2013). It blends features of spoken and written language and often combines multimodal resources such as images, emojis, hyperlinks, and hashtags (Crystal, 2011; Kress & van Leeuwen, 2001). The features of digital platforms shape language use, influencing discourse structures and new forms of interaction, identity creation, and community building (Androutsopoulos, 2014).

Studying digital discourse involves examining how technology interacts with social practices to produce specific language patterns (Jones et al., 2015). Social media platforms encourage short, interactive, and multimedia communication where brevity and the combination of visual and textual elements are essential for making the intended meaning. In these contexts, cohesion is created not just by traditional linguistic devices, but also through platform-specific tools like hashtags, tagging, and hyperlinks (Zappavigna, 2012; Page, 2012).

In this landscape, hashtags stand out as an important part of digital discourse. They work both as a tool for categorizing content and as a discursive device. Hashtags help organize online texts, connect users to larger thematic conversations, and assist in navigating large, searchable discourse networks (Zappavigna, 2015). Understanding hashtags within digital discourse is crucial for analyzing their textual cohesive functions, as it places them in the context of modern communication practices that are user-driven and socially embedded.

2.2 Textual Metafunction in Systemic Functional Linguistics

In SFL, language serves three main functions: the ideational (expressing experiences), the interpersonal (creating social connections), and the textual (organizing discourse) (Halliday, 1978; Halliday & Matthiessen, 2004). The textual metafunction focuses on creating a coherent flow of information, turning separate clauses into a unified and contextually relevant text that functions effectively as a message (Halliday & Hasan, 1976).

The heart of the textual metafunction lies in cohesive devices—linguistic tools that help a text feel connected. Halliday and Hasan (1976) identify cohesion as the set of semantic relations that link sentences and clauses, creating a unified text. They describe five main cohesive devices:

1. Reference

Reference happens when one element points to another for understanding. Halliday and Hasan categorize it as:

- Personal reference (e.g., pronouns: he, she, they)
- Demonstrative reference (e.g., this, that, those)
- Comparative reference (e.g., same, better, more)
- Reference may be endophoric (pointing to elements within the text) or exophoric (referring to the context outside the text).

2. Substitution

Substitution replaces one item with another to avoid repetition, such as:

- Nominal substitution: e.g. I prefer the red pen. Take the blue one.
- Verbal substitution: e.g. She sings well, and so does he.
- Clausal substitution: e.g. Is it going to rain? I think so.

3. Ellipsis

Ellipsis occurs when an element is omitted because it can be inferred from the context. It is essentially substituted by “nothing.” For example:

- Nominal ellipsis: I’ll take two [Ø]. (apples).
- Verbal ellipsis: She can play the guitar, and he can [Ø] too. (play)
- Clausal ellipsis: Can you help me with this report? – I can [Ø]. (help you with that report)

4. Conjunction

Conjunctive cohesion indicates logical connections between clauses or sentences. Unlike other cohesive devices, conjunction expresses relations of meaning rather than pointing to items. Halliday and Hasan group conjunctions into:

- Additive (and, also, in addition)
- Adversative (but, however, on the other hand)
- Causal (so, therefore, as a result)

- Temporal (then, next, finally)

5. Lexical Cohesion

Lexical cohesion occurs through word choice and the semantic relations between words. Halliday and Hasan highlight:

- Repetition (happy ... happy)
- Synonymy and near-synonymy (big ... large)
- Antonymy (hot ... cold)
- Collocation (rain ... umbrella)

In addition to these cohesive devices, the textual metafunction also organizes thematic structure—how a clause is divided into a Theme (the starting point or the subject) and a Rheme (the main content that develops the Theme). This structure helps guide the reader through the information flow of the text (Halliday & Hasan, 1976; Fries, 1981; Thompson, 2013).

The combination of cohesive devices and thematic progression is crucial to achieve cohesion in discourse. This is particularly important in short, multimodal formats like social media captions, where these resources need to work efficiently to create meaning within a limited textual space (Alyousef, 2020). In summary, the textual metafunction provides the analytical tools necessary to understand how language is structured to create coherent and contextually relevant texts. This foundation is essential for analyzing cohesion in digital contexts.

2.3 Hashtags in Digital Discourse

Hashtags started as user-generated tools for categorizing and discovering content (Messina, 2007). Their role has grown beyond this initial purpose, making them dynamic and multifunctional elements of digital communication (Zappavigna, 2018).

From a systemic functional standpoint, hashtags can contribute to all the three metafunctions of language. They often express ideational meaning, label topics, and serve as interpersonal markers, showing stance and building community online (Page, 2012; Zappavigna, 2015; Scott, 2015). However, their textual metafunction—structuring discourse and organizing meaning—holds particular importance. Hashtags act as thematic markers, summarizing broad ideas into compact, searchable formats, helping create cohesion within a post and across broader discourse networks (Alyousef, 2020; Mahfouz, 2020).

On multimodal platforms like Instagram, these roles become even more pronounced. Hashtags must operate in a visually constrained environment where meaning is co-constructed with images and brief captions. Therefore, hashtags are best understood not simply as indexing tools, but as versatile semiotic resources central to the organization of digital discourse (Zappavigna, 2018; Page, 2012).

2.4 Hashtags as Cohesive Devices

While the ideational and interpersonal roles of hashtags are well recognized (Zappavigna, 2015; Stæhr & Madsen, 2017), their textual role in creating cohesion is less explored. According to Halliday and Hasan's (1976) framework, hashtags can fulfill many cohesive functions usually performed by grammatical or lexical devices.

The most noticeable cohesive role of hashtags is lexical cohesion. Hashtags form semantic chains through repetition, synonyms, or related topics (e.g., **#wanderlust**, **#travelgram**, **#adventure**), strengthening thematic unity and connecting posts to larger discourse communities (Muttaqien et al., 2023; Zappavigna, 2018). They also play a role in reference. Hashtags may function anaphorically, pointing back to elements in the caption, or exophorically, indexing shared cultural knowledge such as **#NewYear** or **#ThrowbackThursday** (Eggins, 2004).

Additionally, hashtags can create conjunctive relationships, signaling additive (**#also**), contrastive (**#but**), or causal (**#because**) connections, similar to traditional conjunctions (Halliday & Matthiessen, 2014). Finally, hashtags usually act as thematic markers, functioning as hyper-themes that encompass the overall focus of the post, directing how readers interpret the content (Matthiessen, Teruya, & Lam, 2010).

Despite this potential for cohesion, detailed analyses of hashtags as textual devices—especially in Instagram captions—are still limited. This study aims to address this gap by using Halliday and Hasan's (1976) model to analyze Instagram discourse posted by Kurdish users, focusing on the textual metafunction of hashtags while considering their broader semiotic roles.

3. Previous Studies

Previous studies on hashtags show a clear evolution in their understanding, moving from simple labels to complex, multifunctional linguistic tools. Early research, which laid the groundwork for the field, explored the social and communicative roles of hashtags. Zappavigna (2012) introduced the idea of "ambient affiliation", showing that hashtags build community and express shared values. This highlighted their interpersonal metafunction. Page (2012) expanded on this by analyzing how hashtags are used for self-branding by micro-celebrities, finding that they are crucial for managing online identities.

Wikström (2014) further examined their nuanced roles, illustrating that hashtags can convey humor and irony. This initial wave of research established that hashtags are much more than simple search tags; they are powerful tools for social interaction. A major turning point occurred with the application of the SFL framework, which offered a stronger model for understanding how hashtags function. Zappavigna (2015) brought together earlier findings by proposing that hashtags fulfill three metafunctions: the ideational (labeling topics), the interpersonal (expressing stance), and the textual (organizing discourse). This three-part model has become the standard for most hashtag research.

This period also witnessed structural analyses, like Caleffi's (2015) investigation of hashtags as a new morphological process, reinforcing their ideational role in topic indexing and searchability. More recent research continues to apply this framework, focusing on specific platforms and functions. For example, Alshalan (2020) studied Saudi Instagram users and found that hashtags mainly serve branding, thematic

organization, and identity construction, reaffirming the importance of the ideational and interpersonal functions. However, a growing body of work has started to address the previously overlooked textual metafunction. Mahfouz (2020) conducted a key study that employed an SFL analysis, showing how hashtags in activist discourse on Twitter act as cohesive devices that create lexical cohesion. This finding established a vital methodological precedent for understanding how hashtags contribute to the cohesion of a text.

Despite this progress, a gap persists in the literature. Previous studies have either prioritized other metfunctions or focused solely on Twitter. The specific application of Halliday and Hasan's (1976) cohesive framework to analyze how hashtags create cohesion on Instagram, remains largely unexplored. This study aims to fill this gap by applying the cohesive framework specifically to the Instagram platform. It seeks to systematically investigate the textual cohesive role of hashtags, contributing a better understanding of discourse cohesion in short-form, multimodal digital communications.

4. Methodology

4.1 Research Design

The study employed a mixed-method approach. The qualitative part used SFL-based content analysis (Halliday & Hasan, 1976) to explore how hashtags function as cohesive devices within Instagram captions. The quantitative part analyzed the frequency and distribution of these cohesive devices across thematic categories. This combination provides both depth and breadth of analysis: qualitative insights reveal patterns, while quantitative results show their prevalence within the dataset.

4.2 Data Source and Collection

A dataset of 200 publicly accessible Instagram posts by Bahdini and Sorani Kurdish users was collected over two years, 2024 and 2025. Posts were collected from various content genres, including culture and identity, everyday life, nature and travel, art and creativity, and commerce. All included hashtags were written in English, a language commonly used to improve visibility. This complete dataset served as the basis for both qualitative and quantitative analyses.

4.3 Data Preparation

Captions and hashtags were extracted from each post and compiled into a dataset. Hashtags were separated from the main caption text to allow systematic analysis of their cohesive functions. No posts were excluded from the corpus; therefore, the analysis represents the full dataset without any sampling bias.

4.4 Thematic Orientation of the Dataset

The dataset covers a wide range of topics, including culture and identity, everyday life, nature and travel, art and creativity, and commerce. Recognizing this thematic breadth places the cohesive functions of hashtags within a broader cultural and communicative context, aligning with the study's focus on digital cohesion and thematic organization.

4.5 Analytical Framework and Measures

This study applies Halliday and Hasan's (1976) model of cohesive devices, focusing on their realization of the textual metafunction in Systemic Functional Linguistics (SFL). Hashtags were examined for their role in creating cohesion and organizing thematic content in Instagram captions. Six categories were encompassed in the framework: reference, substitution, ellipsis, conjunction, lexical cohesion, and thematic organization. To ensure analytical consistency, a detailed codebook was developed, presenting operational definitions, illustrative examples, and explanatory notes (Table 1).

Table 1

Analytical Codebook for Hashtag Cohesive Functions

Code	Definition	Example	Notes / Explanation
Reference	The hashtag refers to a person, place, object, or concept already present in the caption, or one that can be inferred from shared cultural knowledge.	Caption: " <i>Celebrating Nowruz in Akre!</i> " Hashtag: #Akre	Establishes cohesion by linking caption content to a specific entity. Can be endophoric (within the caption, e.g., #Akre) or exophoric (shared cultural knowledge, e.g., #kurdishness).
Substitution	The hashtag replaces a word or phrase from the caption to avoid repetition.		Included for theoretical completeness (Halliday & Hasan, 1976). No clear instances were found in this dataset, likely because hashtags usually add information rather than substitute for it.
Ellipsis	The caption omits essential information, and the hashtag provides it, completing the message.	Caption: " <i>The view is incredible!</i> " Hashtag: #kurdistanmountains	Shows how hashtags supply missing contextual details (e.g., location, event), ensuring the caption is fully interpretable.
Conjunction	The hashtag expresses a logical link between ideas (addition, contrast, cause, sequence).	Caption: " <i>Love traditional design.</i> " Hashtag: #andmodernvibes	Hashtags extend or contrast the caption, creating semantic relationships (e.g., adversative, additive).

Code	Definition	Example	Notes / Explanation
Lexical Cohesion	The hashtag creates a semantic tie through repetition, synonymy, or related vocabulary.	Caption: " <i>We handcraft every piece.</i> " Hashtag: #handmade	Functions similarly to conjunctions in text. Reinforces or reiterates key vocabulary from the caption, strengthening cohesion at the word level.
Thematic Organization	The hashtag signals the overall theme, topic, or framing of the post.	Caption: " <i>A day in the life.</i> " Hashtag: #kurdishvillage	Central in Instagram discourse: hashtags explicitly announce the subject matter or cultural framing, even when captions are vague.

4.6 Data Analysis Procedure

Data analysis was carried out in four steps:

- Extraction and Preparation: All captions from the 200 posts were compiled, and hashtags were separated from the main caption text. The extracted hashtags were then prepared for coding based on their cohesive functions within the dataset.
- Coding and Categorization: Using the SFL-based codebook outlined in Table 1, each hashtag was assigned one or more cohesive functions. Multiple functions were allowed for hashtags that performed more than one role.
- Frequency and Distribution Analysis: Instances of each cohesive function were counted, revealing patterns in their usage across the sampled posts and genres.
- Thematic Interpretation: A qualitative interpretation explored how hashtags contribute to textual cohesion, particularly regarding their interaction with sentence structure, information focus, and overall discourse organization.

4.7 Ethical Considerations

All data were taken from public Instagram posts. To protect user identity, no account names or personal identifiers are revealed. Each post is anonymized with a numerical code (e.g., Post 1, Post 2 ... Post 200).

4.8 Reliability and Validity

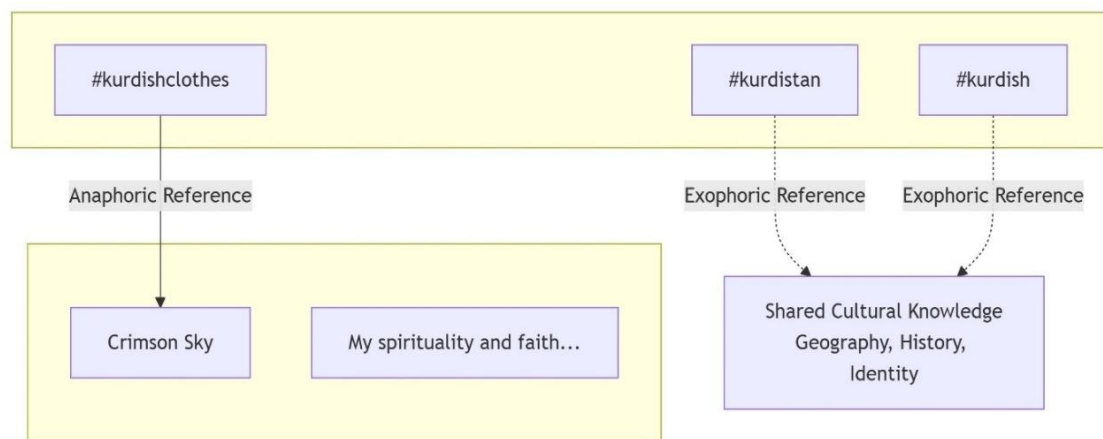
Reliability was ensured through jury validation: two experts reviewed the codebook and samples of coded data to confirm clarity and consistency. Validity was strengthened by grounding categories in Halliday and Hasan's (1976) framework, using a detailed codebook, and analyzing the entire corpus of 200 posts to avoid bias and ensure comprehensive coverage. The mixed-method design further enhanced validity by combining frequency analysis with qualitative interpretation.

5. Analysis and Discussions

A key cohesive function of hashtags lies in reference, acting as textual pointers that connect the caption to shared knowledge or previous textual elements. In the dataset, exophoric references are especially common, linking posts to entities and concepts outside the immediate text. For example, geographical hashtags consistently anchor content to specific locations: in “*Crimson Sky*,” hashtags **#kurdistan**, **#erbil**, **#sleman**, and **#duhok** act as fixed markers, placing the post within Kurdistan (Post 51). Similarly, “*A day at Rumi Café with friends*” uses **#Kurdistan**, **#Hawler**, **#sulaymaniyah**, and **#Dohok** to create a connection to other posts referencing these cities (Post 161). Cultural and historical references also show up frequently; in “*Kurdish tattoo Deq: A Kurdish tradition that has continued for centuries*,” hashtags **#kurdish**, **#deq**, and **#traditionaltattoo** refer to well-known cultural practices, signaling shared community knowledge (Post 177). Even a single hashtag, as in “*My spirituality and faith have taught me...*” with **#kurdish**, points to a broader cultural and religious context (Post 71). In addition to exophoric reference, anaphoric references make backward links to the caption’s content. In “*Kurdish clothes day*,” hashtags **#kurdishclothesday**, **#kurdishclothes**, and **#kurdishdress** restate key concepts from the caption, reinforcing the topic (Post 53). Similarly, “*Dressed to impress my ancestors...*” uses **#kurdishclothes** to refer back to the type of clothing worn, connecting the post to a cohesive textual chain (Post 122). Together, these referential hashtags create networks that link individual posts to cultural knowledge and prior textual elements. This highlights forth a unique feature of social media: cohesion goes beyond the text and links to a larger cultural and intertextual network. The distribution of exophoric and anaphoric references across the dataset is illustrated in Figure 1.

Figure 1

Cohesive Function of Hashtags: Reference

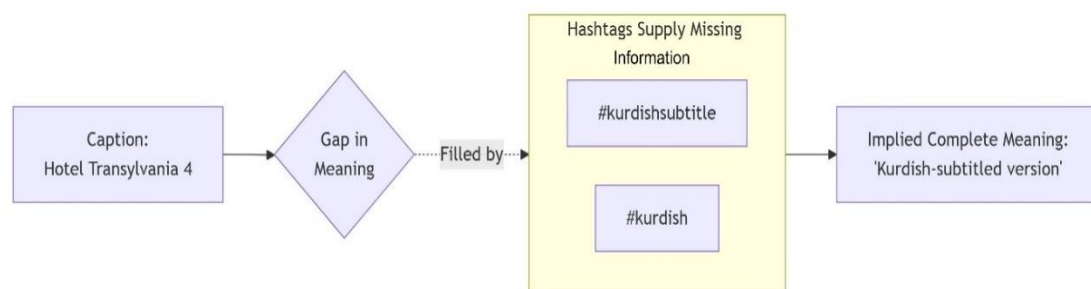


Note. Exophoric references (dashed lines) link outward to shared cultural knowledge; anaphoric references (solid line) link back to concepts in the caption.

Building on reference, hashtags also serve through ellipsis, supplying essential information that is missing or implied in the caption. For instance, “*Hotel Transylvania 4*” features **#kurdishsubtitle**, providing the missing detail that the movie version is subtitled in Kurdish (Post 7). In “*How buildings are moved?*”, hashtags **#kurd**,

#kurdistan, **#kurdish**, **#kurdmusic**, and **#duhok** fill the locational and cultural gaps, clarifying context missing from the caption (Post 9). Even captions that seem minimally informative, such as “*The last one for this year*,” rely on hashtags like **#kurdishwomen**, **#sketchbook**, **#thelastone**, **#kurdishartists**, and **#kurdishgraphicdesigners** to complete the meaning, specifying the content type, creator, and artistic medium (Post 127). In these ways, ellipsis hashtags ensure that every caption communicates a fully interpretable message. The role of hashtags in resolving ellipsis is shown in Figure 2, which highlights their function in supplying omitted or implied information.

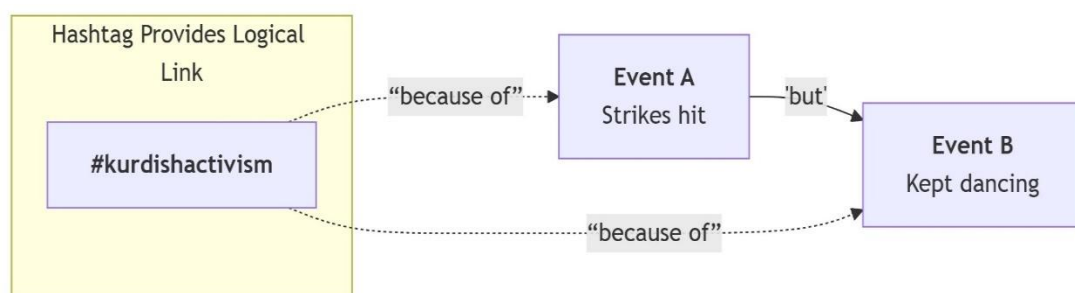
Figure 2
Cohesive Function of Hashtags: Ellipsis



Note. The hashtags supply the critical information (**#kurdishsubtitle**) that is omitted from the caption itself.

Along with ellipsis, hashtags frequently function as conjunctive devices, creating logical connections between ideas, events, and actions. They express causality, purpose, contrast, addition, and sequence, often bridging gaps left by concise captions. The caption “*During the Barchi village festival in Duhok province... Turkish strikes hit nearby—but festival-goers kept dancing Kurdish Govend...*”, the hashtag **#kurdishactivism** provides a causal link explaining why participants continued dancing (Post 107). Similarly, in “*So happy to see the excitement on the faces of the children AND adults in Lavriou Camp! We brought a big box of Kurdish language books from Turkey to Greece.*”, hashtags **#education**, **#educationalsupplies**, and **#childrenseducation** clarify the purpose behind the described action, creating cohesion through reasoning (Post 60). Conjunction is also apparent in contrastive or additive links; in “*Maqluba fresh*,” hashtags **#FoodStyling** and **#KurdishFood** blend traditional and modern concepts, integrating seemingly different ideas (Post 63). Sequential relationships appear in “*The last one for this year*,” where **#thelastone** places the post within a series of artworks, indicating continuity and closure (Post 127). Although ellipsis and conjunction are less common, they demonstrate how hashtags can enhance captions that may be limited or disjointed. Their presence shows how even short postings can get more context and significance from hashtags, which are extra tools instead of main structural tools. This proposes a digital form of cohesiveness in which short captions are matched by long hashtags. The cohesive role of hashtags as conjunctive devices is summarized in Figure 3, which shows their ability to establish logical relationships between textual elements.

Figure 3
Cohesive Function of Hashtags: Conjunction



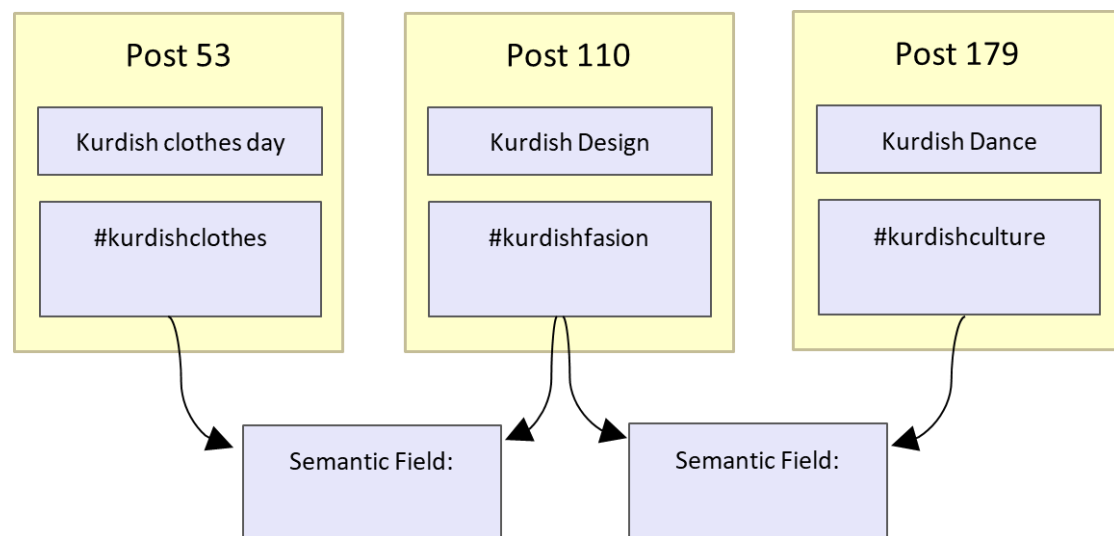
Note. The hashtag **#kurdishactivism** acts as a conjunctive device, creating a logical bridge of causality that explains the relationship between the two contrasting events described in the caption. It answers the implicit question "Why did they keep dancing despite the strikes?"

Another key mechanism of cohesion is lexical cohesion. It works through repetition, synonymy, hyponymy, and collocation to create rich semantic networks of meaning. Repetition strengthens the topic in captions and hashtags. For instance, “*Kurdish clothes day*” is accompanied with **#kurdishmusic**, **#kurdishclothesday**, **#kurdishclothes**, and **#kurdishdress**, forming a strong lexical chain (Post 53). Synonymy and hyponymy enhance these networks further. In “*Rolls Royce Ghost 2022*,” **#rollsroyceghost** and **#cars** connect a specific car model to a broader category (Post 5). Meanwhile, “*Beautiful flowers*” uses **#flowerphotos**, **#flowershop**, and **#flowerdesign** to create hyponymic and synonymous links that reinforce the floral theme (Post 14). Collocation also aids thematic cohesion. Outdoor-themed posts group hashtags like **#hiking**, **#mountains**, **#adventuretime**, and **#exploremore** (Post 24) or **#KurdistanOutdoors**, **#exploring**, **#hiking**, **#snow**, **#mountains** (Post 48), forming recognizable patterns. Posts about Kurdish culture repeatedly use **#KurdishFashion**, **#KurdishStyle**, **#KurdishDesign** (Post 110) along with **#KurdishCulture**, **#KurdishTradition**, **#KurdishArt**, **#KurdishDance** (Post 179). Repetition, synonymy, and collocation in long chains not only strengthen certain issues but also strengthen cultural identity. Hashtags like **#KurdishClothesDay** or **#KurdishTradition** are examples of how identity and heritage are represented in digital environments.

Although these hashtags are related to identity and heritage, they contribute to textual cohesion. They connect posts through shared themes or topics, forming

semantic chains across multiple entries and strengthening continuity within a discourse network. In Hallidayan terms, these hashtags act as hyper-Themes, signaling the main topic of the post and guiding reader interpretation while linking captions to a wider social and cultural context (Zappavigna, 2015; Muttaqien et al., 2023). This means that even when the content discusses identity or heritage, it also helps organize discourse and establish cohesion directly related to the textual metafunction. The operation of lexical cohesion through repetition, synonymy, hyponymy, and collocation is illustrated in Figure 4.

Figure 4
Cohesive Function of Hashtags: Lexical Cohesion

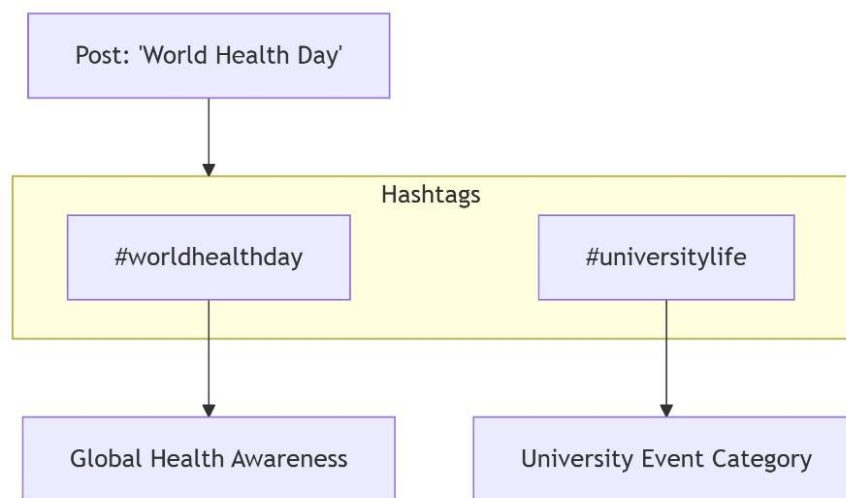


Note. Lexical chains are formed through repetition and semantic relationships across multiple posts, creating cohesive thematic networks.

Lastly, hashtags play a role in organizing themes by clearly categorizing posts. Readers can easily find topical markers through them. General captions often depend on hashtags for clarification. For example, in “*Today's spring festival in Salahaddin university engineering department*,” the hashtags **#kurdistan**, **#kurdishfestival**, and **#engineeringdepartment** define the content theme clearly (Post 54). Similarly, “*Literacy is a bridge from misery to Hope*” uses **#refugeecamp**, **#yezidi**, **#literacy**, and **#adultliteracy** to position the post within the larger discourse on education and refugee issues (Post 61). Hashtags also categorize content for events and campaigns. “*World Health Day*” employs **#worldhealthday** and **#universitylife**, placing the post within a global textual category (Post 76). Artistic and professional posts, like “*The last one for this year*” with **#sketchbook**, **#artist**, and **#kurdishartists** (Post 127), along with educational content like “*Career day is very important...*” with **#schoolisfun**, **#kg**, and **#kindergarten** (Post 105), further show how hashtags help guide interpretation and link content across a shared thematic space. Thematic organization ensures that each post aligns with broader discourse networks, framing individual experiences within communal categories. This organizational function, where hashtags provide thematic clarity and intertextual connection, is summarized in Figure 5.

Figure 5

Cohesive Function of Hashtags: Thematic Organization



Note. Hashtags act as explicit topical markers, categorizing the post for discovery and thematic interpretation within larger discourses.

6. Findings

This section presents the findings of the study in relation to the four research questions:

1. What types of textual cohesive devices do hashtags perform in Instagram captions?

The data showed that hashtags realize various cohesive functions, mainly reference, lexical cohesion, and thematic organization. Exophoric reference was particularly common, as hashtags often pointed to locations, cultural symbols, and shared knowledge (e.g., **#kurdistan**, **#newroz**, **#peshmarga**). Lexical cohesion also appeared frequently, with repetition, synonymy, and collocation forming dense semantic chains around cultural identity, lifestyle, and nature. Hashtags occasionally fulfilled conjunctive and elliptical functions, though substitution was not found in the dataset. This uneven distribution shows that cohesiveness in online environments is best for visibility, resonance, and cultural indexing, not for balance across all devices.

This distribution indicates that hashtags tend to reinforce and extend meaning which highlights their additive role in digital discourse.

2. How do hashtags contribute to theme and information structure in captions?

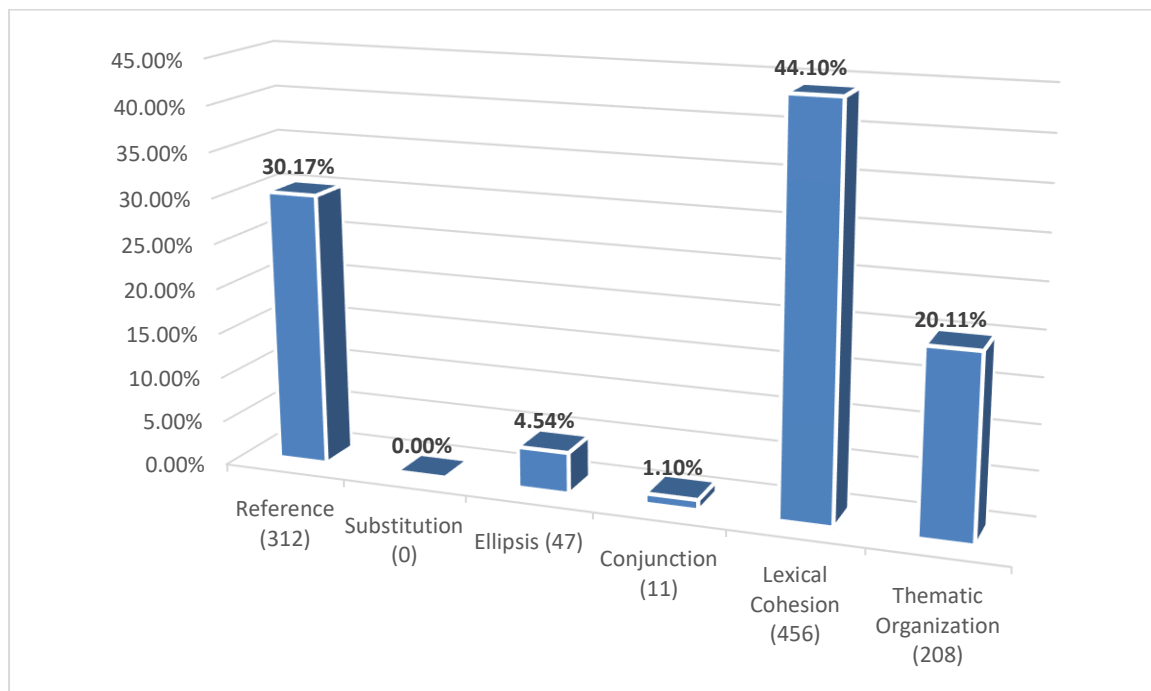
Thematic organization appeared as a key function of hashtags. Hashtags clearly marked topics, categorized content, and signaled broader cultural or situational contexts. For example, in the caption “*Summer time in Kurdistan*” post (78), hashtags such as #summer, #summertime, #hiking, #kurdistan, #nature, #vacation, #trip, #camping, and #mountains identify the main theme, categorize the content, and connect the post to established cultural and activity-related knowledge. They also influenced the flow of information: captions introduced new or personal information, while hashtags connected this with established cultural knowledge, situating individual experiences within a communal discourse. This layering effect emphasizes the dual role of hashtags as thematic markers and discourse framers.

3. Which textual cohesive functions are most frequent in Instagram captions?

The analysis of frequency in the dataset, shown in Figure 6, reveals a clear hierarchy of cohesive functions in Instagram captions by Kurdish users. Lexical cohesion is the most frequent used device, with 456 instances (44.1%), followed by reference with 312 instances (30.17%). Thematic organization appears somewhat often, with a total of 208 instances (20.11%). Ellipsis occurs 47 times (4.54%), and conjunction appears to be the least frequent among them with 11 times (1.1%). Substitution is entirely missing from the corpus (0.0%). This distribution highlights that hashtags mainly serve to reinforce identity, connect content to shared cultural knowledge, and organize thematic networks instead of creating complex relationships or substitutive structures. In Figure 6, the relative proportions along with their percentages emphasize the dominance of lexical cohesion and reference in shaping digital discourse.

Figure 6

Frequency of Cohesive Devices



4. What implications do these findings have for understanding digital discourse cohesion?

These findings show that digital cohesion is not just a linguistic feature but also a socio-technical strategy. The prominence of exophoric reference suggests that cohesion on Instagram relies heavily on shared cultural knowledge beyond the text. Lexical cohesion and thematic organization demonstrate how hashtags reinforce identity and cultural belonging. Simultaneously, hashtags work algorithmically, making content visible within Instagram's platform logic. Thus, cohesion serves both as a method for building community and a strategy for algorithmic circulation, bridging human communication and digital infrastructure.

Taken together, the evidence indicates that hashtags act as textual links, cultural symbols, and computational tools. They keep posts consistent, link them to larger cultural discourse, and increase their visibility on the platform. In this context, this layered cohesion holds additional significance, as hashtags create a space where cultural identity and history are fortified through textual connections.

Building on these findings, the study also recognizes hashtags' socio-technical role within Instagram's algorithmic logic. Hashtags are not only linguistic resources but also strategic tools for visibility. This dual nature may influence their form and frequency: some hashtags—particularly long chains of highly popular but semantically vague tags (e.g., **#love**, **#photooftheday**)—may be motivated more by the desire to maximize reach than by a need for textual cohesion. This algorithmic imperative could therefore shape or distort the cohesive patterns observed. While the present study does not directly measure these motivations, acknowledging this tension highlights the complex interplay between linguistic and platform-driven functions of hashtags. Future research might investigate how algorithmic incentives influence cohesive practices across different communities.

7. Conclusion

This study aimed to investigate the role of hashtags as cohesive devices in Instagram discourse among Kurdish users, employing Halliday and Hasan's (1976) cohesion framework to examine 200 posts.. The findings demonstrate that hashtags are essential in creating cohesion in digital settings and function as linguistic resources that manage both textual organization and cultural connections.

The findings highlight that there is a distinct order of coherent functions. Exophoric reference, lexical cohesiveness, and thematic organization are the main tools that assist captions connect personal experiences to shared cultural knowledge and larger discourse networks.. Ellipsis and conjunction are used only a few times to complete or link messages, while substitution is not used at all, indicating its limited role in digital discourse.

Essentially, the findings reveal that the cohesion of Instagram discourse is additive rather than substitutive. Hashtags add layers of themes, identities, and contexts to content, creating thick semantic chains that make it easier for people to understand and for algorithms to find. This dichotomy shows that cohesion on social media is both a cultural practice for forming community and a technical technique for using the platform

For the Kurdish community, hashtags serve as more than stylistic elements. They are the linguistic threads that connect individual posts into a collective narrative, strengthening identity, heritage, and social solidarity in the digital realm. By applying SFL to this context, the study enhances digital discourse analysis and emphasizes the importance of cohesion as a key part of producing meaning in online communication.

Subsequent research may extend this concept to more languages, multimodal resources (such as images and videos), or platforms, providing deeper understanding of how digital discourse communities attain cohesion across diverse socio-technical situations.

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Abstract in Arabic

تبحث هذه الدراسة دور الوسوم (الهاشتاج) كأدوات للتماسك النصي للخطاب في تطبيق الإنستغرام لدى المستخدمين الكرد من خلال تبني النموذج النظري لهاليداي وحسن (1976) في اللغويات الوظيفية النظامية (SFL). لقد تمت دراسة الوسوم على نطاق واسع لوظائفها الشخصية والفكرية. ومع ذلك، لم يتم استكشاف دورها المحدد في تحقيق الوظيفة النصية وتنظيم الخطاب بالإضافة إلى خلق التماسك النصي بشكل كافٍ. لمعالجة هذا الأمر، تم إجراء تحليل مختلط الأساليب (نوعي وكمي) لعينة قوامها 200 منشور (بوست) على منصة الإنستغرام والمتاحة لكافة المتابعين. ركز التحليل على: المرجع والاستبدال والحذف والوصل والتماسك المعجمي والتنظيم الموضوعي. تبين النتائج أن دور الوسوم أساسي في خلق التماسك النصي الرقمي وهي تعمل في المقام الأول من خلال التماسك المعجمي (التكرار والترادف والإقتران) و المرجع الخارجي (ترسيخ الخطاب في المعرفة الثقافية والجغرافية المشتركة) والتنظيم الموضوعي (تحديد موضوع المنشور بشكل صريح وعلني). كان الحذف والوصل موجودين أيضاً ولكن بشكل أقل شيوعاً. غاب الاستبدال، مما يؤكد ندرته في الخطاب الرقمي. تُبرز جميع هذه الأنماط أن قواعد استخدام الوسوم هي في جوهرها قواعد تراكمية ومتعددة الطبقات. فهي تعزز الهوية الثقافية وتُعزز أيضاً قابلية الظهور وفقاً للبيئة الخوارزمية للمنصة. يخلص البحث إلى أن الوسوم ليست مجرد بيانات وصفية، بل هي موارد لغوية أساسية تحوّل المنشورات المنفردة إلى خطاب رقمي متماسك وغني ثقافياً. وبالتالي، يساهم هذا البحث، من خلال تطبيق نظرية التماسك النصي المستندة إلى اللغويات الوظيفية النظامية على خطاب إنستغرام، في تقديم فهم دقيق لكيفية تحقيق التماسك في الفضاء الرقمي عبر النصوص القصيرة متعددة الوسائط.

الكلمات المفتاحية: التماسك النصي، اللغويات الوظيفية النظامية، الوظائف النصية، الخطاب الرقمي، إنستغرام
