

Doctoral (PhD) Dissertation



**Narratives in response to visual stimuli: A comparative
analysis of cultural schemas and implicit motives among
Hungarian and Jordanian bilinguals in EFL context**

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Veszprém, 2025

ABSTRACT

This dissertation examines cross-cultural differences in narrative construction and motivational drivers among 230 Hungarian and Jordanian bachelor students studying English Studies, English Literature, or Linguistics in Hungary and Jordan. Using qualitative and quantitative methods, participants (mean age 21) wrote narratives in English in response to a silent film and Thematic Apperception Test (TAT) picture cards. Analyses combined thematic analysis (TA) and the Linguistic Inquiry and Word Count tool (LIWC-22) to explore the influence of cultural schemas on second-language storytelling.

Study 1 (130 participants: 66 Hungarians, 64 Jordanians) revealed that while both groups addressed universal themes like autonomy and regret, Hungarians used more analytic, individual-focused language and highlighted romantic intimacy, whereas Jordanians expressed stronger emotional tone, authenticity, and framed relationships through marriage, family duty, and faith-based gratitude. Diverging settings and social roles reflected individualism versus collectivism.

Study 2 (100 participants: 50 Hungarians, 50 Jordanians) found shared themes of love, loss, and betrayal, but with contrasting narrative framing: Hungarians emphasized personal agency, non-marital romance, and decisive action, while Jordanians focused on familial obligation, reconciliation, marriage, and traditional gender roles—patterns aligning with Hofstede’s cultural dimensions.

Study 3 quantitatively analyzed motives of achievement, power, and affiliation in the same 100 participants. Affiliation motives differed significantly between cultures (small effect size), achievement showed minimal variation, and power revealed none. Family and gender role themes showed the strongest cultural divergence, while emotionally intense scenarios evoked more universal responses. Overall, findings demonstrate that second-language narratives are shaped not only by proficiency but also by deep-seated cultural schemas and motivational patterns. The research underscores the value of culturally responsive pedagogy that addresses both cognitive and emotional aspects of L2 writing.

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1. Introduction

This chapter lays the groundwork for the dissertation by situating the research within the global context of English as a Foreign Language (EFL) and framing the investigation through three interrelated empirical studies comparing Hungarian and Jordanian bilinguals.

English serves today as a global lingua franca, enabling communication across cultural, political, and economic boundaries. In the context of English as a Foreign Language (EFL), learning extends beyond the mastery of grammar and vocabulary; it involves engaging with the cultural norms, values, and communicative practices of its speakers (Byram, 1997; McKay, 2003). This dissertation examines how bilingual university students from Hungary and Jordan construct narratives in English, and how their cultural backgrounds influence the thematic focus, narrative structure, and perspective of these stories. It shows that language learning is not merely the acquisition of linguistic forms but also a process of reframing entire story schemas through the lens of one's cultural heritage.

The research is organized into three interconnected studies. Study 1 investigates cultural differences in English narratives written by Hungarian and Jordanian students after viewing a silent film. Study 2 examines responses to Thematic Apperception Test (TAT) picture cards, focusing on recurring themes, schema types, and narrative framing strategies. Study 3 analyzes the same narratives from Study 2 using quantitative methods to identify motivational drivers of achievement, power, and affiliation. Together, these studies integrate Cultural Schema Theory (Sharifian, 2011), Hofstede's Cultural Dimensions (2001), and Motive Disposition Theory (McClelland, 1987) to provide a comprehensive account of how cultural values and motivational tendencies are expressed in L2 storytelling.

The purpose of this dissertation is to investigate how Hungarian–English and Jordanian Arabic–English bilinguals with high L2 proficiency use cultural schemas and motivational drivers in narrative writing. Studies 1 and 2 explore how cultural schemas—event, role, propositional, and emotional—shape the structure, content, and thematic emphasis of English narratives produced in response to visual stimuli. Study 3 examines how implicit motives of achievement, power, and affiliation are expressed in these narratives, using the LIWC-22 tool to conduct a cross-cultural comparison. The overarching aim is to understand how cultural values, educational contexts, and bilingual cognition interact to influence L2 narrative construction.

1.2. Research questions and hypotheses

This dissertation examines how Hungarian and Jordanian university students' cultural backgrounds influence the thematic content, schematic structures, and motivational drivers of English narratives produced in response to visual stimuli.

Study 1 – Silent film narratives:

- What cognitive, emotional, and social narrative styles distinguish the two groups?
- Which cultural schema types (propositional, event, role, emotion) and themes appear, and how are they construed along the individualism–collectivism axis?
- How do cultural schemas manifest in L2 lexical choices, revealing bilingual mental lexicon activation?

Study 2 – TAT picture cards:

- Which cultural schemas occur uniquely or with differing frequency across groups?
- How do these patterns relate to Hofstede's dimensions, especially individualism–collectivism and power distance?
- How do L1 socio-cultural schemas interact with English narrative conventions to shape content and form?

Study 3 – Motivational drivers:

- How are affiliation, achievement, and power motives expressed and differentiated between groups?
- How do these differences relate to cultural values, perspectivization, cognitive patterns, and narrative complexity?

2. Literature review

2.1. Cultural Linguistics (CL)

Cultural Linguistics (CL) is an interdisciplinary field dedicated to exploring the profound relationship between language and culture. Its roots can be traced back to pioneering figures such as Wilhelm von Humboldt, Franz Boas, Edward Sapir, and Benjamin Whorf, who laid the groundwork for understanding how culture shapes linguistic expression. Modern CL, however, delves deeper, investigating how culturally-shaped conceptualizations are intrinsically woven into the fabric of language itself. Building upon the principles of cognitive linguistics, which posits that meaning emerges from the interaction of human perceptual and conceptual faculties, CL offers a more focused lens, (Sharifian, 2015).

2.1.1. Cultural Schema theory

Schematization, closely related to categorization, is defined as “a process that involves the systematic selection of certain aspects of a referent scene to present the whole, disregarding the remaining aspects” (Talmy, 1983: 225). Within this framework, image schemas—dynamic, embodied patterns. Cultural schemas serve as cognitive blueprints that shape how speakers interpret, produce, and negotiate meaning within their cultural contexts. According to Strauss and Quinn (1997: 117), “all native knowledge of language and culture belongs to cultural schemas,” making every act of communication an instance of schema deployment.

2.1.2. Operational typology of cultural schemas

Sharifian (2017) then refines schema theory by treating cultural schemas as a distinct subclass of cognitive schemas, those “building blocks of cognition that help organize, interpret, and communicate information” (D’Andrade, 1995; Rumelhart, 1980). He integrates the functional criteria and intercultural types into a five-fold typology that captures the principal ways culture inflects cognition:

I. Event Schemas: First articulated as “scripts” by Schank and Abelson (1977), event schemas capture the prototypical sequence of actions, participants, and settings that comprise recurring social episodes, such as weddings, funerals, and communal meals. **II. Role Schemas:** D’Andrade’s (1995) anthropological work clustered schemas around social positions (e.g., parent, teacher, elder), highlighting how communities encode normative expectations of authority, obligation, and hierarchy in collective knowledge. **III. Propositional Schemas:** Sharifian (2011) defines propositional schemas as shared belief statements or evaluative propositions (e.g., “elders must be respected,” “hard work yields moral worth”). **IV. Emotion Schemas:** Nishida (2005), in an intercultural analysis, included emotion schemas among eight primary schema types, highlighting how cultures pattern the experience and display of affect. **V. Image Schemas:** Johnson’s (1987) foundational work on embodied cognition introduced image schemas—dynamic patterns like CONTAINER, PATH, and BALANCE—as prelinguistic structures organizing spatial and metaphorical thought..

This operational typology provides a rigorous framework for identifying and comparing the culturally specific mental structures that shape human cognition, communication, and social behavior.

2.2. The bilingual mental lexicon and conceptual representation

Within psycholinguistic and cognitive frameworks, concepts are understood as mental structures encoding the properties of categories, serving classification and inference functions (Barsalou et al., 2003). Central to multilingual cognition is the organization of the bilingual lexicon, where linguistic elements—words, morphemes, and their semantic, phonological, and syntactic properties—are systematically stored and interconnected (Jackendoff, 2002). The *thinking-for-speaking* hypothesis (Slobin, 1996) suggests that L2 learners must acquire new verbalization patterns, yet L1 cognitive patterns often persist due to deep cognitive entrenchment. Empirical studies on L2 motion events show that speakers with typologically distinct L1s retain L1-based patterns even at advanced levels (Cadierno, 2008; Han & Cadierno, 2010), with some gesture components being more resistant to change than others (Stam, 2010). This supports Han and Odlin's (2006) claim that L1 and L2 cognitive-linguistic systems may never fully converge, a phenomenon reflected in the present study's narrative data. While bilingual lexicon models address lexical storage and access, understanding narrative construction requires examining how speakers conceptualize and structure events.

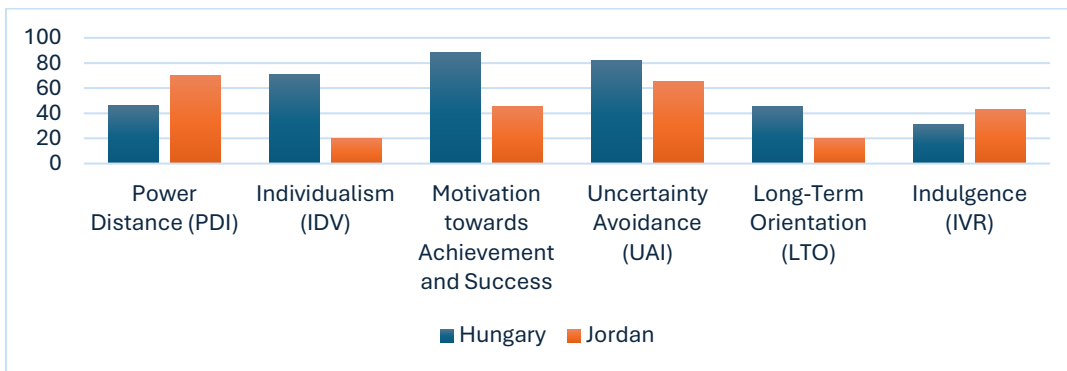
2.3. Hofstede's Cultural Dimensions

Hofstede's Cultural Dimensions framework (Hofstede, 2001) offers a foundational model for understanding cross-cultural differences in values such as power, individualism, and societal norms, impacting communication and narrative construction. The model includes six dimensions: Power Distance (PDI), Individualism (IDV), Motivation toward Achievement (formerly Masculinity), Uncertainty Avoidance (UAI), Long-Term Orientation (LTO), and Indulgence (IVR). These are measured using the Values Survey Module (VSM; Hofstede & Minkov, 2013), with country scores updated periodically (Hofstede Insights, 2023).

Comparing Hungary and Jordan

Hungary and Jordan differ significantly across Hofstede's dimensions (Hofstede Insights, 2023; Minkov & Kaasa, 2022). Hungary scores lower on Power Distance (46) than Jordan (70), reflecting Hungary's preference for decentralized power and participative decision-making, whereas Jordan accepts hierarchical authority. In terms of Individualism, Hungary ranks high (71) indicating emphasis on personal achievement and autonomy, while Jordan's low score (20) signifies a collectivist society prioritizing group loyalty and social harmony.

Hungary’s high Motivation toward Achievement (88) contrasts with Jordan’s moderate score (45), showing Hungary’s competitive and assertive values versus Jordan’s consensus and collaboration focus. Both countries have high Uncertainty Avoidance (Hungary 82; Jordan 65), favoring structure and rules but with Jordan being slightly more tolerant of ambiguity. Regarding Long-Term Orientation, both have relatively low scores (Hungary 45; Jordan 20), highlighting respect for tradition and a preference for short-term outcomes. On Indulgence, both cultures are restrained (Hungary 31; Jordan 43), reflecting self-discipline and limited emphasis on leisure (Hofstede Insights, 2023).



In this dissertation, individualism vs. collectivism notably influences Studies 1 and 2, where Hungarian bilinguals’ narratives focus on autonomy and achievement, while Jordanian bilinguals emphasize family and group ties. Study 3 examines motivation, highlighting Hungary’s competitive drive versus Jordan’s focus on affiliation and consensus (Hofstede, 1991; Hofstede Insights, 2023).

2.4. Motive Disposition Theory (MDT)

Developed by David McClelland in the 1960s, Motive Disposition Theory (MDT) identifies three core motivators driving human behavior: achievement, affiliation, and power (McClelland, 1965). These motives are shaped by life experiences and cultural contexts, with each individual having a dominant motivator influencing their behavior (McClelland et al., 1989). MDT helps explain how people respond differently to incentives based on their motivational profiles (Schultheiss et al., 2008). This study uses MDT to explore how Hungarian and Jordanian bilinguals express motivational drivers through narratives, reflecting cultural influences. McClelland distinguished implicit (unconscious) motives, which predict long-term behavior, from explicit (conscious) motives, which govern immediate, deliberate responses (McClelland et al., 1989).

MDT identifies three motivators, each pursued through approach (hope) or avoidance (fear) orientations (Schüler et al., 2019; Chasiotis et al., 2014):

- **Achievement:** Driven by challenging goals and feedback, motivated by hope for success or fear of failure (McClelland et al., 1989; Schultheiss et al., 2008).
- **Affiliation:** Motivated by forming social bonds and acceptance, driven by hope for closeness or fear of rejection (McClelland, 1987; Schultheiss & Brunstein, 2010). Collectivist cultures especially reinforce affiliation motives (Hofer et al., 2017).
- **Power:** Motivated by influence and control, oriented by hope for leadership or fear of weakness (McClelland, 1987; Schultheiss & Brunstein, 2010). In individualistic cultures like Hungary, narratives often reflect a hope for power and assertiveness.

This research applies MDT to analyze Hungarian and Jordanian students' narratives, assessing motivational drivers quantitatively with LIWC-22 and capturing implicit motives via the TAT projective technique. This combined approach offers a nuanced view of how cultural contexts influence motivation and narrative construction.

2.5. English as a Lingua Franca and EFL Context

English functions dually as a lingua franca facilitating communication among diverse first-language speakers (Seidlhofer, 2011) and as a culture-bound language carrying native-speaker cultural schemas that influence learners' identities (Kramsch, 1998; McKay, 2003). This dual role shapes learners' social norms and self-conceptions, emphasizing that EFL proficiency involves both communicative competence and intercultural sensitivity (Pennycook, 2006; Kramsch, 2013).

English in the Hungarian Context: Since the Cold War's end, English has shifted from a peripheral foreign language in Hungary to a primary medium of international communication. The removal of compulsory Russian and Hungary's EU membership have increased demand for English proficiency in education, business, and academia (Medgyes & Nikolov, 2014; Csizér et al., 2008). Although Hungary is officially monolingual, multilingual realities emerge with early foreign language education, predominantly in English (Movchan, 2012). Hungarian cultural and linguistic traits influence English use, evident in rhetorical and narrative strategies such as delayed thesis presentation and complex sentence structures that mirror Hungarian linguistic patterns (Godó, 2008; Heltai, 2005).

English in the Jordanian Context: In Jordan, Arabic is the official language central to national and religious identity, while English functions as the primary foreign language with prestige in

education, business, and technology (Dweik, 1986; Al-Khatib, 2000). English-medium instruction is common at universities, and proficiency is essential for global opportunities. Jordanian learners face structural and cultural challenges in English writing, often transferring Arabic rhetorical styles such as parataxis, repetition, and elaboration before stating main points, reflecting cultural communication preferences (Rababah, 2003; Al-Jarrah & Al-Ahmad, 2018). The language is compartmentalized to safeguard Arabic's role as the core of cultural and religious identity (Zughoul, 2003; Tahaineh & Daana, 2017).

2.6. Written Narratives and Culture

Narrative research has grown significantly across disciplines like anthropology, psychology, linguistics, and education, often employing interdisciplinary approaches (Gabryś-Barker, 2013). Narratives—including diaries, biographies, and memoirs—enable deep insight into subjective experiences, shaped by individual context and cultural frameworks (Denzin & Lincoln, 2000; Trahar, 2011). This makes narratives particularly valuable for studying multilingualism, as they reveal how individuals interpret their social world and linguistic identity.

From cognitive linguistics, particularly Langacker's Construal Theory (1987, 2008), narratives are seen as sequences of conceptualizations shaped by linguistic choices. Perspective is key, signaled through pronouns, tense, and deictic markers that locate events in time and space (Dancygier, 2011). Narrators decide what to foreground ("figure") and background ("ground") in their stories (Talmy, 2000). Attention and subjectivity play crucial roles: narrators selectively profile certain elements while leaving others implicit, shaping the audience's interpretation (Langacker, 2008). Subjectivity ranges from neutral event reporting to emotional, evaluative accounts, marked by modal verbs and adjectives (Langacker, 1990). These linguistic mechanisms show that narratives are carefully constructed versions of reality, shaped by cultural and cognitive processes.

3. Methodology

3.1. Participants

Across the three studies, a total of 230 bilingual university students from Hungary and Jordan participated. All were enrolled in English-medium EFL programs at their respective institutions, primarily studying English Studies, English Literature, or Linguistics. The mean age of participants was 21 years, ranging from 18 to 25, and all provided informed consent prior to participation. English was selected as the common second language (L2) medium for all participants, ensuring

that neither the Hungarian nor the Jordanian group held a native-speaker advantage. All participants demonstrated English proficiency at the CEFR B2-C1 levels, as confirmed through Text Inspector online software. Study 1 Participants involved 130 students, comprising 66 Hungarian participants (36 males, 30 females) and 64 Jordanian participants (21 males, 43 females). Studies 2 and 3 Participants collectively included 100 students, evenly split between 50 Hungarian and 50 Jordanian participants. Gender distribution in these studies varied: the Hungarian cohort consisted of 37 females and 13 males, while the Jordanian cohort included 42 females and 8 males.

3.2. Research Materials

This study employed a combination of standardized and custom-designed instruments to elicit linguistic data and gather participant information.

Bilingual Language Profile (BLP): To assess participants' linguistic backgrounds and verify eligibility, the Bilingual Language Profile (BLP; Gertken et al., 2014) was administered during both data collection phases (Study 1 and Studies 2 & 3). This self-report tool captured detailed information on participants' English language use, native-language proficiency (Hungarian or Arabic), language attitudes, and overall bilingualism.

Silent-Film Stimulus (Study 1): In Study 1, participants were presented with an animated silent film titled *Happiness*, created by Finnish media professional Tuomas Tuppurainen (Tuppurainen, 2016). The film depicts a young man's reflective journey, exploring themes of personal ambition, reality's constraints, and the pursuit of dreams through vivid daydream sequences. The study's chosen film is accessible at the following link:

[https://youtu.be/_O,"swhichPwas?si=_ZDO7JGfGCJd6mk9](https://youtu.be/_O,).

TAT Picture Cards Stimuli (Studies 2 and 3): Studies 2 and 3 utilized four specific picture cards from the Thematic Apperception Test (TAT), a widely recognized projective tool. Following established TAT methodology, these cards were deliberately chosen based on their thematic relevance and demonstrated ability to evoke culturally and psychologically rich narratives (Murray, 1943). The TAT's flexible approach allows selection of subsets tailored to study aims and participant cultural or developmental contexts (Lilienfeld et al., 2000; Cramer, 2004). The four cards used were:



Picture card 1



Picture card 2



Picture card 3



Picture card 4

3.3. Data Collection and Procedure

- **Common Steps (Informed Consent and BLP):** Participants gave their informed consent by signing consent forms, guaranteeing voluntary and ethical involvement. Following consent, all 230 participants completed the Bilingual Language Profile (BLP) using a paper-based format. The BLP data were then systematically entered into an Excel spreadsheet to facilitate subsequent analysis.

- **Silent-Film Task Viewing (Study 1):** In Study 1, participants viewed the animated silent film *Happiness*. Immediately after watching the film, they were instructed to write a narrative recounting the story, followed by a personal reflection on its themes. A total of 130 narratives were collected, with 66 from Hungarian bilinguals and 64 from Jordanian bilinguals. These narratives were carefully transcribed into Word documents to prepare for thematic analysis.

- **TAT Picture-Cards Task Presentation (Studies 2 and 3):** Studies 2 and 3 participants were tested individually in quiet, distraction-free settings. Each participant was sequentially presented with four selected TAT picture cards. For each card, participants were prompted to write a narrative in English, following the standard TAT structure based on the original administration instructions by Murray and Morgan (1943). Specifically, participants were asked to address: I. What led up to the scene. II. What is happening at the moment. III. What the characters are feeling and thinking. IV. How the story might conclude

3.4. Data Analysis

English proficiency for all 230 narratives was confirmed by cross-referencing self-reported Bilingual Language Profile (BLP) scores (Gertken et al., 2014) with CEFR-based metrics from Text Inspector, including MTLTD and VocD (Bax, 2022). This step guaranteed participants met the B2–C1 proficiency threshold.

A mixed-methods framework was employed, integrating Cultural Linguistics and Hofstede's cultural dimensions theory with Thematic Analysis (TA) and Linguistic Inquiry and Word Count (LIWC-22). Cultural Linguistics provided a micro-level perspective on how cultural knowledge is encoded in language (Grant & Osanloo, 2014), while Hofstede's theory offered a macro-level understanding of societal values influencing communication (Hofstede, 2001, 2011). Their combination enabled a more comprehensive analysis than either framework alone. Together, TA identified thematic manifestations of cultural metaphors and social dimensions (e.g., hierarchy, individualism), while LIWC provided quantitative validation through standard and custom dictionaries informed by the theoretical frameworks (Grant & Osanloo, 2014; Pennebaker et al., 2015). This integrated approach ensures methodological coherence and offers a model for future mixed-methods cultural-linguistic research.

3.4.1. Studies 1 and 2: Analyses of Silent-Film and TAT Card Narratives

- **Studies 1 and 2: Analyses of Silent-Film and TAT Narratives**

1. **Descriptive LIWC-22 Analysis:** LIWC-22 was used to extract psycholinguistic profiles (e.g., analytic thinking, emotional tone, pronoun use), generate word clouds, and compare linguistic features using established algorithms (Jordan et al., 2019; Kacewicz et al., 2014; Kalichman & Smyth, 2021). This analysis applied only to Study 1 (silent film narratives). TAT narratives were analyzed separately in Study 3.
2. **Thematic Analysis (TA):** TA followed Braun and Clarke's reflexive method (2006, 2016) and O'Connor and Joffe (2020) to explore cultural schemas in both Studies 1 and 2. The process involved: I: Familiarization with narratives by two coders (Hungarian and Jordanian). II: Coding using Sharifian's (2011) cultural schema typology (Event, Role, Propositional, Emotion, Image). III: Clustering codes into themes (e.g., Autonomy, Family Role). IV: Reviewing and refining themes for coherence and cultural relevance. V: Naming themes according to schema types and linking to specific TAT cards (Study 2). VI: Writing up illustrative quotes and frequency data.
3. **Intercoder Reliability (ICR):** Two coders independently coded all narratives. Cohen's kappa was calculated using DATAtab (2025) to ensure coding consistency (Cohen, 1960).

3.4.2. Study 3: LIWC-22 Analysis of Implicit Motives in TAT Narratives

Text Preprocessing with LIWC-22:

- *Lemmatization*: Standardizing words to base forms for analysis (Boyd & Pennebaker, 2017).
- *Stop Words Removal*: Excluding common and dataset-specific frequent words to reduce noise (Chung & Pennebaker, 2008).
- *Document-Term Matrix (DTM)*: Created by LIWC-22 to record word frequencies; word inclusion depends on dataset distribution.
- *Variable Extraction*: LIWC thematic categories (e.g., social processes, emotional expression) mapped linguistic data to psychological constructs (Pennebaker et al., 2022).

LIWC-22 Reliability: LIWC-22 is psychometrically validated, ensuring consistent scoring across narratives without interrater coding. Internal consistency measured by KR-20 ranges from .62 to .88 (Pennebaker & Chung, 2007; Pennebaker et al., 2015).

Statistical Analysis in SPSS: Descriptive Statistics, Independent Samples t-tests, MANOVA, Between-Subjects ANOVA and Interpretation of Non-Significant Results

4. Results

4.1. Study 1: Differences in EFL narratives in response to a silent film: a comparison of Hungarian and Jordanian bilinguals

This study investigated context-specific patterns of English language use, proficiency, attitudes, and narrative styles among Hungarian and Jordanian participants. Text Inspector analysis revealed that while both groups had similar CEFR proficiency levels (majority B2-C1), Hungarians showed slightly higher lexical diversity (MTLD and VocD scores). LIWC-22 analysis highlighted differences in writing styles:

Psycholinguistic profiles through LIWC-22 showed distinct patterns: Hungarian narratives exhibited higher analytic thinking (60.26 vs. 36.49), suggesting a more structured and logical language. Jordanian narratives scored higher in authenticity (56.95 vs. 9.81) and emotional tone (56.78 vs. 42.94), indicating more spontaneous and emotionally expressive language.

Thematic analysis identified both shared and differing cultural schemas. Both groups shared themes of 'Independence' (emphasizing self-determination) and 'Regret' (reflecting on missed opportunities). However, distinct cultural influences were evident: Jordanian narratives frequently substituted bus stations for train stations in transit scenarios, emphasized the 'Marriage' script over the 'Kissing' script in romantic contexts, and strongly foregrounded 'Family Role' and 'Friend Role' schemas, along with 'Gratitude'. Hungarian narratives, conversely, adhered more to the film's train setting, focused on the 'Kissing' script, and showed a more individualistic orientation, with less

emphasis on family or friends. Societal norms were articulated by both, but Jordanians viewed them as collective duties, while Hungarians saw them as constraints to be questioned. These findings underscore how cultural contexts shape narrative expression, even among individuals with similar language proficiency.

4.2. Study 2: Comparative thematic analysis of tat picture cards narratives among Hungarian and Jordanian bilinguals in EFL context

Text Inspector Outcomes: CEFR level analysis indicated both groups were predominantly B2 to C1, with Jordanians more at B2 and Hungarians more at C1. Hungarians demonstrated marginally higher lexical diversity (VocD: 90.50 vs. 77.97; MTLN: 80.68 vs. 64.49).

Thematic Analysis by Picture Card

Picture card 1 (Mother, Adult Son): Six schema-based themes emerged. Both groups showed high rates of Familial Discord, but Hungarians framed it as assertions of personal responsibility, while Jordanians emphasized collective welfare and family honor. Grief was a shared emotion, but Hungarians focused on private sorrow in life-threatening contexts, while Jordanians emphasized illness-related loss and collective mourning. Separation was a source of regret and guilt for Hungarians, whereas for Jordanians, it was tied to family obligations and relational integrity. Remorse in Hungarian narratives centered on personal ambition and honesty, while Jordanian narratives linked it to restoring family bonds and caregiving. Hungarians uniquely activated a Military Separation script, and Jordanians showed a stronger focus on Financial Hardship as a communal rupture.

Picture card 2 (Defeated woman): Key themes included Loss, Relationship Breakdown, Burnout, Injustice, and Resilience. Loss was a shared theme, with Hungarians focusing on the death of a husband in war and its aftermath, while Jordanians centered on the sudden absence of a father figure and broader socio-political forces. Relationship Breakdown was more frequent in Hungarian narratives, focusing on betrayal and reclaiming agency through separation, while Jordanians framed it within marital role expectations and trust. Burnout was equally present, with Hungarians focusing on work-life strain and Jordanians on caregiver roles and unfulfilling labor. Injustice in Hungarian stories manifested in formal institutions, while Jordanian narratives depicted it in interpersonal and domestic contexts. Resilience was a shared theme, with Hungarians focusing on individual ambition and Jordanians on collective perseverance.

Picture card 3 (Mother, Daughter, Doll): Themes included Independence, Early Marriage, and Sibling Rivalry. Both groups activated an Independence schema, asserting personal agency, but against different cultural pressures (e.g., traditional expectations for Hungarians, familial imposition for Jordanians). Early Marriage was significantly more salient in Jordanian narratives (15 occurrences vs. 5 for Hungarians), portrayed with traumatic consequences like early motherhood and loss of childhood, often leading to despair or suicide. In Hungarian accounts, it was more of a strategic transaction for social or financial standing. Sibling Rivalry appeared equally in both, with Hungarians depicting older sisters resenting newborn brothers, and Jordanians focusing on jealousy and the mother's role in fostering sibling love.

Picture card 4 (Hot couple): Hungarians emphasize *Betrayal*, depicting direct confrontation, female infidelity, and decisive breakups, while Jordanians portray emotional negotiation, endurance, or silent suffering under societal pressures. *Conflict* occurs in both groups, but Hungarians frame it as a catalyst for reflection or transformation, whereas Jordanians depict reconciliation to preserve harmony. *Unreturned Love* is more common in Hungarian stories, often centered on individual emotional struggle, while Jordanians link it to marital stress and cultural norms. *Manipulation* appears in both cultures, with Hungarians focusing on calculated opportunism and Jordanians on intimate betrayals and coercive power imbalances. *Romantic Devotion* is idealized by both, Hungarians through cinematic sacrifice and personal transformation, Jordanians through marital partnership and family bonds. *Sacrifice* in Hungarian accounts is self-directed for love or fulfillment, while in Jordanian ones it reflects collective duty and relational restoration. *Jealousy* is rare, with Hungarians depicting it within relatively stable unions and Jordanians linking it to patriarchal control and abuse.

4.3. Study 3: Cross-cultural analysis of implicit motives in written narratives: A motive disposition theory and liwc-22 approach

LIWC-22 Categories (General Observations)

MDT Findings for All Picture Cards Combined: MANOVA results showed a significant overall effect of cultural group on the three motives (achievement, power, and affiliation), indicating that cultural background influences the motives expressed in narratives. A series of one-way ANOVAs and independent samples t-tests further investigated these differences:

•**Affiliation:** A significant difference was found, with Hungarian participants ($M=3.52$) having significantly lower affiliation scores compared to Jordanians ($M=4.29$). This aligns with collectivist frameworks emphasizing group cohesion and interdependence in Jordanian culture.

•**Achievement:** A marginal difference was observed, with Hungarians ($M=1.11$) slightly lower than Jordanians ($M=1.39$). Both groups emphasized academic and goal-oriented themes, but through distinct lenses (personal ambition for Hungarians, family expectations for Jordanians).

•**Power:** No significant difference was found between the two groups, suggesting a shared approach to power-related themes, possibly due to globalized academic and social environments.

MDT Findings in Each Picture Card Separately

•**Picture Card 1 (Mother, Adult Son):** A statistically significant overall effect of cultural background on the three implicit motives was found, indicating differences in motivational responses when interpreting this family-oriented image. Jordanians scored significantly higher on achievement and affiliation motives.

•**Picture Card 2 (Defeated Woman):** No significant cultural effect was observed, suggesting similar motivational expressions in response to this emotionally ambiguous image.

•**Picture Card 3 (Mother, Daughter, Doll):** The multivariate test approached statistical significance, suggesting cultural influence on motivational patterns, particularly in contexts involving maternal or childhood themes. Jordanians scored significantly higher on affiliation motives.

•**Picture Card 4 (Hot Couple):** No significant cultural effect was found, indicating minimal variation in motivational expression between groups.

5. Conclusion

The overarching research question asked how Hungarian and Jordanian students' cultural backgrounds shape thematic content, schematic structures, and motivational drivers in English narratives. Findings from Study 1 show that Hungarians adopted a more individualistic, analytically structured, and autonomous narrative style (RQ1), while Jordanians favored collectivist, emotionally expressive, and relational storytelling. Both groups activated similar schema types (RQ2), yet Hungarians emphasized romance and independence, and Jordanians highlighted family roles and gratitude, with these differences aligning with individualism–collectivism orientations (RQ3). Lexical analysis revealed greater lexical diversity in Hungarian narratives, reflecting broader bilingual lexicon activation (RQ4). In Study 2, Hungarians more

often depicted betrayal, self-directed sacrifice, and military separation, whereas Jordanians prioritized reconciliation, communal sacrifice, and early marriage (RQ1–2); these differences corresponded with Hofstede’s cultural dimensions, with Hungarians reflecting low collectivism and Jordanians higher power distance (RQ3). Jordanians frequently adapted visual cues to culturally familiar settings, while Hungarians adhered more closely to the original stimuli, indicating varied interactions between L1 cultural schemas and L2 conventions (RQ4). Study 3 showed that Jordanians scored higher in affiliation motives, Hungarians expressed achievement more in terms of personal ambition, and power motives were similar (RQ1–2), with these trends linked to respective cultural value systems. Finally, perspectivization patterns revealed Hungarians’ preference for analytic, self-contained accounts, while Jordanians favored relational perspectives embedded in emotional reasoning (RQ3), confirming that cultural background subtly but consistently shapes narrative construction, priorities, and communicative goals in a shared second language.

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