MODALITY EFFECTS ON SYNTACTIC AWARENESS IN ALBANIAN–GREEK BILINGUAL ADOLESCENTS: EVIDENCE FROM CROSS-LINGUISTIC INFLUENCE AND CORE ARGUMENT STRUCTURE

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Abstract
This study examines written syntactic awareness in light of documented spoken variability in Albanian–Greek bilingual adolescents belonging to the Greek ethnic minority in Southern Albania. Drawing on theoretical accounts of cross-linguistic influence (CLI), interface vulnerability, and modality-specific processing, the study investigates whether lexical-semantic transfer constructions and core argument-structure configurations exhibit differential stability in written grammatical judgment tasks in Albanian. A written forced-choice questionnaire consisting of 22 sentence pairs in Albanian language (15 CLI items; 7 argument-structure items) was administered to 102 bilingual students aged 14–18. Results revealed a significantly higher rate of non-standard selections in CLI constructions (27.7%) than in argument-structure configurations (19.4%), $\chi^2(1, N = 2244) = 17.60$, $p < .001$, although the effect size was small ($\varphi = .09$). Item-level analysis demonstrated selective instability in specific constructions, while most structures showed strong target-consistent preference. The findings suggest that bilingual syntactic representations are stable in written modality but selectively permeable in lexical-semantic domains. The discrepancy between written judgment stability and reported spoken variability supports models distinguishing between grammatical competence and performance under processing constraints. The study contributes empirical evidence from an underrepresented language pair and advances understanding of domain-specific cross-linguistic influence in bilingual syntax.

Keywords: bilingualism, cross-linguistic influence, modality effects, syntactic awareness, argument structure, Albanian–Greek bilinguals

I. Introduction

The distinction between written and spoken language constitutes a central dimension of linguistic organization, with important implications for bilingual processing. Spoken production unfolds under strict temporal constraints and requires incremental lexical retrieval and morphosyntactic encoding (Levelt, 1989, p. 29). Writing, by contrast, permits extended planning, monitoring, and revision, thereby engaging higher levels of metalinguistic awareness (Biber, 1988; Chafe, 1982). From a psycholinguistic standpoint, these modality differences reflect partially distinct processing dynamics: speech relies heavily on rapid, automatized routines, whereas writing allows for greater executive "control and self-monitoring" (Olive, 2014, p. 188). In bilingual contexts—where both linguistic systems remain co-activated (Kroll et al., 2014, pp.1-2)—such differences may shape how cross-linguistic effects become visible. Contemporary research has increasingly refined our understanding of cross-linguistic influence (CLI) beyond simple transfer models, framing it as a product of "dynamic co-activation and modulation" by linguistic context, processing demands, and structural overlap (Bailey et al., 2024, p. 508). According to Kim (2025), CLI effects vary systematically depending on whether

information is shared or contrasting across languages, a finding that has theoretical implications for predicting which constructions are vulnerable in bilingual grammars. Chondrogianni's (2023) review highlights the role of interface phenomena and individual factors like dominance and age in shaping morphosyntactic CLI, further supporting a domain-specific perspective. Recent syntheses of syntactic awareness research (Ouyang & Jaafar, 2025) underscore how metalinguistic evaluation interacts with cross-linguistic representations, especially in written contexts. Finally, emerging perspectives conceptualize CLI not only as interference but also as a bilingual resource that reflects integrated language processing (Lababa, 2024), suggesting that observed variability may signal adaptive bilingual cognition rather than structural deficiency.

Contemporary models of bilingualism emphasize that cross-linguistic influence (CLI) is systematic rather than random and selectively distributed across grammatical domains. Rather than indicating global restructuring, CLI tends to emerge selectively in areas characterized by structural overlap, lexical-semantic proximity, or processing vulnerability (Jarvis & Pavlenko, 2008; Serratrice, 2013). Interface-based accounts argue that domains requiring integration between syntax and lexical semantics or discourse are particularly permeable (Hulk & Müller, 2000; Sorace, 2011). Recent refinements of this perspective suggest that variability arises when bilingual speakers must coordinate competing representations under conditions of cognitive load (Putnam et al., 2018). Thus, cross-linguistic influence may reflect performance-level competition rather than representational deficit.

Argument structure provides a theoretically informative contrast. Core verb–argument configurations are typically considered structurally constrained and hierarchically encoded within the narrow syntax. Research on bilingual grammars suggests that such core configurations are relatively stable once acquired, even in contact settings (Montrul, 2015). In contrast, constructions involving lexical selection, subtle semantic mappings, or language-specific realization patterns may be more susceptible to transfer effects, particularly when surface overlap between languages masks deeper structural differences (Bailey et al., 2024; Kim, 2025; Putnam et al., 2018; Sorace, 2011).

Modality may therefore function as a diagnostic lens through which underlying representations can be examined. Written grammatical judgment tasks reduce time pressure and allow reflective evaluation of form, potentially revealing stabilized syntactic knowledge that is obscured in spontaneous speech. Several studies have shown that bilingual speakers may exhibit divergence in oral production while maintaining target-consistent intuitions in controlled comprehension or judgment tasks (Montrul, 2015; Sorace, 2011). Such asymmetries reinforce the distinction between competence and performance and suggest that variability in speech may not necessarily indicate grammatical reanalysis.

Within the Albanian–Greek bilingual context, prolonged contact between two morphologically rich Indo-European languages creates fertile ground for examining domain-specific cross-linguistic influence. Albanian exhibits complex inflectional morphology, argument-structure alternations, and clitic-doubling phenomena that have been extensively analyzed in descriptive and generative frameworks (Newmark et al., 1982; Rivero, 2004). Greek similarly displays rich inflection and clitic placement patterns but differs in key lexical-semantic mappings and verb-argument realization strategies. Recent work on language contact in the region (Kokalari, 2025) documents recurring patterns of lexical-semantic transfer and argument-structure convergence in spontaneous bilingual speech, suggesting that certain CLI constructions may be becoming entrenched at the community level. Importantly, Kokalari (2025, p. 223) emphasizes that speakers frequently reproduce verb-argument patterns from the dominant

language in contexts of rapid spoken interaction, highlighting the role of processing pressure and activation competition.

Contact between these systems in Southern Albania—particularly within the Greek ethnic minority—has generated sustained bilingualism characterized by dynamic interaction between the two grammatical systems (Tsitsipis, 1998). Despite the theoretical relevance of this pairing, Albanian–Greek bilingualism remains significantly underrepresented in experimental bilingual syntax research. Existing discussions of contact phenomena have largely focused on sociolinguistic description or ethnographic dimensions of minority bilingualism rather than controlled syntactic evaluation, leaving unanswered questions regarding the stability of bilingual grammatical representations across modalities.

The present study addresses this empirical and theoretical gap by examining modality effects on syntactic awareness among Albanian–Greek bilingual adolescents of the Greek ethnic minority in Southern Albania. Specifically, it contrasts (a) constructions susceptible to lexical-semantic cross-linguistic influence with (b) core argument-structure configurations involving clitic use and verb–argument completion. By comparing these domains within the same written forced-choice paradigm, the study seeks to determine whether bilingual syntactic variability reflects global instability or selective permeability. In doing so, it contributes to ongoing debates regarding interface vulnerability, representational stability, and the role of processing constraints in bilingual grammar.

More specifically, the study pursues three primary objectives:

1. To examine the extent to which bilingual students distinguish between target-consistent and non-standard Albanian constructions influenced by Greek.
2. To compare the relative stability of lexical-semantic transfer constructions (CLI items) and core argument-structure configurations (AS items).
3. To explore whether written grammatical judgment reflects more stable syntactic representations than patterns reported in spontaneous spoken production.

By addressing these objectives, the study contributes to understanding how bilingual syntactic representations are organized and accessed under controlled written conditions.

Research Questions

In line with these objectives, the study addresses the following research questions:

RQ1. Do Albanian–Greek bilingual adolescents demonstrate differential sensitivity to cross-linguistic influence constructions and argument-structure configurations in written grammatical judgment tasks?

RQ2. Is cross-linguistic influence more vulnerable than core argument structure under written modality conditions?

RQ3. Does written modality reveal stable syntactic representations despite reported variability in spoken Albanian?

Hypotheses

Grounded in selective CLI and interface-based accounts (Hulk & Müller, 2000; Sorace, 2011) and contemporary models of bilingual co-activation (Kroll et al., 2015; Putnam et al., 2018), the study advances the following hypotheses:

H1. CLI constructions will yield significantly higher rates of non-target selections than argument-structure constructions.

H2. Argument-structure configurations will demonstrate greater stability due to their core syntactic status.

H3. Written performance will reflect relatively stable grammatical representations, indicating that spoken variability partially reflects processing competition rather than structural reanalysis.

II. Methodology

2.1 Research Design

The study adopted a quantitative, cross-sectional design employing a written forced-choice grammatical judgment task. The purpose was to assess bilingual adolescents' sensitivity to target-consistent versus non-standard Albanian constructions across two syntactic domains: (a) cross-linguistic influence (CLI) constructions and (b) argument-structure (AS) configurations. The design enables comparison of construction types within the same participant population and allows for inferential testing of category-level differences.

2.2 Participants

The sample consisted of 102 Albanian–Greek bilingual students (ages 14–18) belonging to the Greek ethnic minority in Southern Albania. Participants were enrolled in secondary-level educational institutions located in geographically contiguous areas near the Greek border, where sustained contact with both Albanian and Greek is characteristic of the linguistic environment.

All participants:

- Had formal literacy in Albanian.
- Were regularly exposed to Greek in community and/or family settings.
- Functioned within a bilingual sociolinguistic context.

The adolescent age range (14–18 years) is particularly relevant, as participants have already undergone several years of formal literacy instruction in Albanian, allowing for the assessment of relatively stabilized written syntactic representations.

2.2.1 Instrument

The instrument consisted of a written forced-choice questionnaire comprising 22 sentence pairs, divided into:

- 15 Cross-Linguistic Influence (CLI) items
- 7 Argument Structure (AS) items

Each item presented two alternative sentences:

1. A target-consistent Albanian construction
2. A non-standard alternative reflecting either:
   - Greek-influenced lexical-semantic transfer (CLI items), or
   - Argument-structure misalignment, including clitic misassignment or incorrect argument realization (AS items).

Participants were instructed to select the sentence they considered grammatically correct in standard Albanian.

Responses were coded binarily:

- 1 = Target-consistent selection
- 0 = Non-standard selection

This coding allowed quantitative comparison across construction types.

The unequal distribution of items (15 CLI; 7 AS) reflects documented patterns in spontaneous bilingual speech within the region. Observational and recent empirical research (Kokalari, 2025) indicates that lexical-semantic transfer constructions occur more frequently and display greater variability than core argument-structure configurations in spoken Albanian among

Greek–Albanian bilinguals. The questionnaire therefore included a broader range of CLI constructions in order to systematically examine whether patterns frequently observed in speech would persist under written evaluation conditions.

2.3 Procedure

The questionnaire was administered in written format during regular school hours under supervised classroom conditions. Participants completed the task individually without time pressure and without corrective feedback.

The written modality was deliberately selected to assess explicit grammatical sensitivity under reduced processing demands, thereby minimizing real-time production constraints typically associated with speech.

The unequal number of items reflects the broader range of attested lexical-semantic CLI patterns compared to the more structurally constrained argument-structure configurations.

Table 1. CLI patterns configurations

CLI x	Incorrect		Correct		Notes
CLI1	24	23.5%	78	76.47%	Strong target preference; moderate CLI effect.
CLI2	24	23.5%	78	76.47%	Strong target preference; moderate CLI effect.
CLI3	32	31.4%	70	68.63%	Moderate variability; noticeable CLI susceptibility.
CLI4	8	7.8%	94	92.16%	Near-ceiling performance; highly resistant to CLI.
CLI5	22	21.6%	80	78.43%	Strong target preference; limited CLI influence.
CLI6	78	76.5%	24	23.53%	Majority non-standard preference; strong CLI vulnerability.
CLI7	18	17.6%	84	82.35%	Strong target preference; low CLI impact.
CLI8	46	45.1%	56	54.90%	High variability; unstable representation.
CLI9	14	13.7%	88	86.27%	Strong target preference; resistant to CLI.
CLI10	7	6.9%	95	93.14%	Near-ceiling performance; highly stable structure.
CLI11	32	31.4%	70	68.63%	Moderate variability; noticeable CLI susceptibility.
CLI12	21	20.6%	81	79.41%	Strong target preference; limited CLI influence.

CLI13	35	34.3%	67	65.69%	Moderate variability; frequent acceptance of non-standard variant.
CLI14	13	12.7%	89	87.25%	Strong target preference; resistant to CLI.
CLI15	50	49.0%	52	50.98%	High variability; near-balanced distribution indicating unstable norm.

Source: Elaborated by the author.

Table 2: Argument-structure patterns configurations

ASx	Incorrect		Correct		Notes
AS1	8	8.2%	94	91.8%	Near-ceiling performance; structurally stable.
AS2	1	1.4%	101	98.6%	Ceiling performance; fully resistant to interference.
AS3	34	32.9%	68	67.1%	Moderate variability; partial argument-structure instability.
AS4	14	13.7%	88	86.3%	Strong target preference; largely stable.
AS5	6	5.5%	96	94.5%	Near-ceiling performance; resistant structure.
AS6	49	47.9%	53	52.1%	High variability; unstable argument-structure representation.
AS7	27	26.0%	75	74.0%	Strong target preference; moderate variability.

Source: Elaborated by the author.

Table 3: Aggregated CLI patterns and Argument-structure patterns configurations

	Incorrect	Correct
ASx	19.4%	80.6%
CLI x	27.7%	72.29%

Source: Elaborated by the author.

2.4 Data Analysis

A total of:

- 1530 CLI responses (15 items × 102 participants)
- 714 AS responses (7 items × 102 participants)

were analyzed.

Descriptive statistics were calculated at both item and category levels. To examine whether construction type (CLI vs AS) was associated with response accuracy and because the design was categorical and item-level responses were aggregated, a chi-square test of independence was conducted.

Results indicated a statistically significant association between construction type and response accuracy:
χ^2 (1, N = 2244) = 17.60, $p < .001$.
The effect size, calculated using the Phi coefficient, was small:
$\varphi = .09$, indicating a modest but reliable difference between construction types.

III. Results

Cross-linguistic influence items yielded a higher rate of non-standard selections (27.7%) than argument-structure items (19.4%), indicating greater vulnerability in lexical-semantic transfer than in core morphosyntactic configurations.

3.1 Results – Cross-Linguistic Influence (CLI) Items

Performance across the cross-linguistic influence (CLI) revealed an overall target-consistent response rate of 72.29%, with 27.7% of responses corresponding to the non-standard variants. While most CLI items showed a clear preference for the target form (e.g., CLI4: 92.16%; CLI10: 93.14%; CLI9: 86.27%), several items demonstrated noticeable variability. In particular, CLI3 (68.63%) and CLI11 (68.63%) reflected moderate dispersion, suggesting partial susceptibility to transfer effects. More pronounced instability was observed in CLI8 (54.90%) and CLI15 (50.98%), where responses were nearly evenly distributed between target and non-target variants. Most strikingly, CLI6 displayed a reversal pattern, with only 23.53% target-consistent responses and 76.5% selection of the non-standard form. Overall, the findings indicate that cross-linguistic influence operates selectively, with certain constructions remaining robust while others exhibit substantial vulnerability.

3.2 Results – Argument Structure (AS) Items

Argument structure (AS) items yielded a higher overall target-consistent response rate (80.6%) compared to CLI items, with 19.4% non-standard selections. Several items demonstrated near-ceiling performance, including AS2 (98.6%), AS5 (94.5%), and AS1 (91.8%), indicating strong stability of core argument-structure configurations. Nevertheless, some variability was observed in AS3 (67.1%) and AS7 (74.0%), suggesting partial sensitivity in specific constructions. Notably, AS6 presented a near-balanced distribution (52.1% target-consistent), indicating structural instability in this particular configuration. Despite isolated cases of variability, the overall pattern suggests that argument-structure representations are comparatively more resistant than CLI-related lexical-semantic constructions.

3.3 Statistical Comparison: CLI vs AS – Chi-square test of independence

A chi-square test of independence revealed a significant association between item type (CLI vs. AS) and response accuracy, χ^2 (1, N = 2244) = 17.60, $p < .001$. Cross-linguistic influence items elicited significantly more non-standard responses than argument-structure items.
Phi coefficient:

$$\phi = \sqrt{\frac{17.60}{2244}} \approx 0.089$$

The effect size was small ($\varphi = .09$), indicating a modest but reliable difference between categories.

These findings directly address RQ1 and RQ2 by demonstrating a statistically significant difference between CLI and AS constructions, with CLI items exhibiting greater vulnerability under written modality.

3.4 Mode-related effects (spoken vs written judgments)

Bilinguals maintain stable syntactic representations in L2; however, spontaneous speech requires rapid access to these representations while simultaneously suppressing L1 activation. The combined effect of processing speed, dual-language activation, and increased monitoring load results in temporary retrieval failures, producing errors that do not reflect underlying grammatical competence.

The questionnaire results help determine whether the participants' explicit knowledge of grammar (available in writing/reading tasks) diverges from the errors they report in spontaneous production, supporting theoretical claims about differential access to grammatical knowledge under time pressure.

IV. Discussion

Taken together, the pattern indicates that cross-linguistic influence in the Albanian–Greek bilingual context is selective rather than global in scope. Regarding RQ1 and RQ2, cross-linguistic influence constructions were significantly more vulnerable than argument-structure configurations. With respect to RQ3, the relatively high overall accuracy rates suggest that written performance suggests the presence of stable representations, consistent with—but not directly contrasted against—reported spoken variability.

4.1 Selective Vulnerability of Cross-Linguistic Influence Constructions

The findings reveal a statistically significant difference between cross-linguistic influence (CLI) constructions and argument-structure (AS) configurations. CLI items elicited a higher proportion of non-standard selections (27.7%) compared to AS items (19.4%), and this difference was confirmed through inferential testing (χ^2 (1, N = 2244) = 17.60, $p < .001$). Although the effect size was small ($\varphi = .09$), the association is systematic and dependable.

This pattern suggests that cross-linguistic influence in the Albanian–Greek bilingual context operates selectively rather than globally. Lexical-semantic constructions appear more permeable to transfer effects, whereas core argument-structure configurations demonstrate comparatively greater stability. The findings do not point to uniform vulnerability across the grammatical system. Rather, susceptibility appears to cluster in particular structural domains. Importantly, the majority of items in both categories showed strong target preference, indicating that the bilingual system remains largely stable at the level of explicit grammatical judgment. Instability appears construction-specific rather than generalized across the grammatical system.

4.2 Item-Specific Instability and Gradient Acceptability

Beyond category-level effects, item-level variation provides further insight into the nature of bilingual syntactic representation. Certain CLI items (notably CLI6) displayed a reversal pattern, with a majority of participants selecting the non-standard variant. Additionally, CLI8, CLI15, and AS6 demonstrated near-balanced distributions, indicating unstable or gradient representations.

These patterns suggest that cross-linguistic influence may become entrenched in specific constructions through sustained exposure within community speech practices. Rather than

reflecting incomplete acquisition, these findings may point toward probabilistic grammatical representations shaped by bilingual usage patterns.

The presence of high variability in isolated items further supports the view that bilingual grammar constitutes a dynamic system in which certain constructions become more susceptible to transfer due to frequency, semantic overlap, or structural similarity between languages.

4.3 Written Modality and Access to Syntactic Representations

The relatively high overall accuracy rates—particularly in AS constructions—indicate that participants possess stable underlying syntactic knowledge in Albanian. Given that the task required explicit written judgment without time pressure, the findings suggest that bilingual adolescents can access target-consistent representations when processing demands are reduced. This pattern aligns with models that separate grammatical competence from performance under processing constraints, suggesting that the variability observed in spontaneous speech may not reflect representational instability per se. Errors reported in spontaneous spoken Albanian may reflect real-time activation competition, processing speed limitations, or monitoring load, rather than representational deficiency.

Thus, the discrepancy between written judgment stability and reported spoken variability aligns with accounts proposing that bilingual production is especially sensitive to cross-language activation during rapid retrieval, whereas written evaluation allows greater metalinguistic control.

4.4 Implications for Bilingual Syntax and Educational Contexts

The findings contribute to ongoing discussions regarding cross-linguistic influence and bilingual syntactic development. First, they provide empirical support for selective transfer effects within a less-studied language pair (Albanian–Greek), expanding research beyond more commonly investigated bilingual combinations.

Second, stronger resilience of argument-structure configurations suggests that deeper morphosyntactic representations may stabilize earlier or resist transfer more effectively than lexical-semantic mappings. This distinction has implications for both theoretical modeling and pedagogical practice.

Even when syntactic representations are largely stable, spontaneous speech places considerable demands on rapid retrieval while requiring the suppression of activation from the other language. The combined effects of processing speed, dual-language activation, and monitoring demands may result in temporary retrieval failures that do not reflect underlying grammatical competence.

The questionnaire findings therefore allow evaluation of whether explicit grammatical knowledge—accessible under written, low-pressure conditions—diverges from variability reported in spontaneous production. The results support theoretical accounts positing differential access to grammatical representations under conditions of processing load.

In educational contexts serving the Greek minority in Albania, the results indicate that literacy-based instruction may reinforce syntactic awareness and support maintenance of target-consistent structures. The written modality appears to function as a stabilizing domain for bilingual grammatical knowledge.

V. Limitations & Future Directions

While the present study provides systematic evidence of selective cross-linguistic vulnerability in Albanian–Greek bilingual adolescents, several limitations should be acknowledged.

First, the study relied exclusively on a written forced-choice grammatical judgment task. Although this design allowed for controlled comparison across construction types and minimized real-time processing demands, it does not directly capture spontaneous spoken production. Consequently, conclusions regarding spoken modality effects remain inferential rather than directly measured. Future research should incorporate oral production tasks or corpus-based analyses to directly compare written and spoken syntactic performance within the same participants.

Second, the study adopted a cross-sectional design. While participants were within a relatively narrow adolescent age range (14–18 years), developmental trajectories cannot be established. Longitudinal studies following bilingual learners across educational stages would allow for examination of how cross-linguistic influence and argument-structure stability evolve over time.

Although the sample represents a linguistically significant population—the Greek ethnic minority in Southern Albania—findings may not generalize to other Albanian–Greek bilingual communities with different sociolinguistic profiles, input conditions, or dominance patterns. Future studies should compare bilingual populations across regions and educational contexts to assess the role of input quality and literacy exposure.

Also, the imbalance in item distribution (15 CLI items vs. 7 AS items) may have influenced the weight of category-level comparisons. Although statistical analysis accounted for total response counts, future research should consider a more structurally balanced design to strengthen internal comparability.

Finally, the present study did not include independent measures of language dominance, proficiency, or input quantity. Incorporating standardized proficiency assessments and dominance indices would allow more fine-grained modeling of individual differences and their interaction with syntactic vulnerability.

5.1 Future Directions

Building on these findings, several avenues for future research emerge.

1. Multimodal Design: Studies integrating written judgment, spoken production, and real-time processing measures (e.g., reaction time tasks) would clarify the relationship between competence and performance in bilingual syntax. Future research incorporating parallel spoken production tasks would allow direct modality comparison.
2. Longitudinal Investigation: Tracking adolescents across secondary education would illuminate whether unstable constructions (e.g., CLI6, CLI15, AS6) stabilize, shift toward community norms, or further diverge.
3. Input and Literacy Effects: Detailed investigation of literacy practices, home language use, and instructional program type could determine how modality-specific exposure shapes syntactic stability.
4. Community Norm Formation: High-variability items may reflect emerging contact-induced norms rather than individual errors. Sociolinguistic analyses could explore whether certain non-standard variants are becoming conventionalized within the bilingual community.
5. Neurocognitive Approaches: Experimental studies examining processing load and cross-language activation during syntactic evaluation would further clarify mechanisms underlying selective vulnerability.

Conclusion

This study investigated written syntactic awareness in Albanian–Greek bilingual adolescents belonging to the Greek ethnic minority in Southern Albania, focusing on differential

vulnerability across cross-linguistic influence (CLI) constructions and argument-structure (AS) configurations.

The findings reveal that bilingual students demonstrate largely stable syntactic representations in written grammatical judgment tasks. However, cross-linguistic influence constructions elicited a significantly higher proportion of non-standard selections (27.7%) compared to argument-structure constructions (19.4%), a difference confirmed through statistical analysis (χ^2 (1, N = 2244) = 17.60, $p < .001$). Although the effect size was small, it was systematic and reliable, indicating selective rather than global syntactic vulnerability.

Item-level variation further demonstrated that instability is construction-specific. While most structures remained robust, a limited number of CLI and AS items exhibited near-balanced distributions or majority non-standard preference, suggesting gradient representations shaped by bilingual exposure and usage patterns. These findings support models of bilingual grammar that emphasize probabilistic, domain-sensitive transfer rather than wholesale structural erosion.

Importantly, the relatively high accuracy rates observed in written judgment tasks suggest that bilingual adolescents retain access to target-consistent syntactic representations when processing demands are reduced. This reinforces theoretical distinctions between grammatical competence and performance under real-time production constraints, particularly in contact settings characterized by sustained dual-language activation.

By providing empirical evidence from an underrepresented language pair, this study contributes to broader discussions of cross-linguistic influence, modality effects, and bilingual syntactic organization. The Albanian–Greek context offers a valuable testing ground for examining how lexical-semantic mappings and argument-structure configurations respond differently to sustained bilingual exposure.

Overall, the findings suggest that bilingual syntactic systems are neither globally deficient nor unstable. Instead, they appear selectively permeable, shaped by structural domain, exposure patterns, and the processing conditions under which language is accessed.

References

Bailey, L. M., Lockary, K., & Higby, E. (2024). *Cross-linguistic influence in the bilingual lexicon: Evidence for ubiquitous facilitation and context-dependent interference effects on lexical processing. Bilingualism: Language and Cognition, 27*(3), 495–514. https://doi.org/10.1017/S1366728923000597

Biber, D. (1988). *Variation across speech and writing*. Cambridge University Press.

Chafe, W. (1982). Integration and involvement in speaking, writing, and oral literature. In D. Tannen (Ed.), *Spoken and written language: Exploring orality and literacy* (pp. 35–53). Ablex.

Chondrogianni, V. (2023). *Cross-linguistic influences in bilingual morphosyntactic acquisition.* In I. Elgort, A. Siyanova-Chanturia, & M. Brysbaert (Eds.), *Cross-language influences in bilingual processing and second language acquisition* (pp. 294–315). John Benjamins.

Hulk, A., & Müller, N. (2000). Bilingual first language acquisition at the interface between syntax and pragmatics. *Bilingualism: Language and Cognition*, *3*(3), 227–244. doi:10.1017/S1366728900000353

Jarvis, S., & Pavlenko, A. (2008). Crosslinguistic Influence in Language and Cognition (1st ed.). Routledge. https://doi.org/10.4324/9780203935927

Kim, H. (2025). Crosslinguistic influence in bilingual morphosyntactic processing: Effects of language-common, language-contrasting, and language-specific information. *Bilingualism: Language and Cognition*, *28*(1), 172–184. doi:10.1017/S1366728924000269

Kokalari, E. (2025). Περιγραφή περιπτώσεων γλωσσικής επαφής σε ένα δίγλωσσο περιβάλλον [Description of language contact cases in a bilingual environment]. In E. Gríva, G. Vláchos, P. Korombóki, A. Giannakoúoulou, & M. Tzifópoulos (Eds.), *Η ελληνική ως δεύτερη/ξένη γλώσσα: Εκπαιδευτικές πολιτικές και πρακτικές σε περιβάλλοντα της Ελλάδας και του εξωτερικού* [*Greek as a second/foreign language: Educational policies and practices in environments in Greece and abroad*] (pp. 222–229). Πανεπιστήμιο Δυτικής Μακεδονίας / ΠΑ.Κ.Ε.Κ. ΤΗΜΕΝΟΣ. https://ucri.uowm.gr/book/i-elliniki-os-defteri-kseni-glossa-ekpaideftikes-politikes-kai-praktikes-se-perivallonta-tis-ellados-kai-tou-eksoterikou/

Kroll, J. F., Bobb, S. C., & Hoshino, N. (2014). Two languages in mind: Bilingualism as a tool to investigate language, cognition, and the brain. *Current Directions in Psychological Science, 23*(3), 159–163. https://doi.org/10.1177/0963721414528511

Lababa, A. (2024). From challenge to resource: Understanding cross-linguistic influence in SLA. *Lingua: Journal of Linguistics and Language, 2*(2), 88–101. https://doi.org/10.61978/lingua.v2i2.1031

Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. MIT Press.

Montrul, S. (2015). *The Acquisition of Heritage Languages*. Cambridge University Press.

Newmark, L., Hubbard, P., & Prifti, P. (1982). *Standard Albanian: A reference grammar for students*. Stanford University Press.

Olive, T. (2014). Toward a parallel and cascading model of the writing system: A review of research on writing processes coordination. *Journal of Writing Research, 6*(2), 173–194. https://doi.org/10.17239/jowr-2014.06.02.4

Ouyang, X., & Jaafar, N. M. (2025). Syntactic awareness and reading comprehension: A systematic review of cross-linguistic transfer. *GEMA Online® Journal of Language Studies, 25*(4).

Putnam, M. T., Carlson, M. T., & Reitter, D. (2018). Integrated, not isolated: Defining typological proximity in an integrated multilingual architecture. *Frontiers in Psychology, 8*, 2212. https://doi.org/10.3389/fpsyg.2017.02212

Rivero, M. L. (2004). Dative clitics in Balkan languages. In O. Mišeska Tomić (Ed.), *Balkan syntax and semantics* (pp. 195–226). John Benjamins.

Serratrice, L. (2013). Cross-linguistic influence in bilingual development: Determinants and mechanisms. *Linguistic Approaches to Bilingualism, 3*(1), 3–25. https://doi.org/10.1075/lab.3.1.01ser

Sorace, A. (2011). Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism, 1*(1), 1–33. https://doi.org/10.1075/lab.1.1.01sor

Tsitsipis, L. D. (1998). *A linguistic anthropology of praxis and language shift: Arvanitika (Albanian) and Greek in contact*. Oxford University Press.