


Syntactic-Semantic Interface of Nuclear Elements in English, German, and Uzbek

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Abstract

This article investigates the syntactic-semantic interface of nuclear elements — specifically verb predicates and their essential arguments — in three typologically distinct languages: English, German, and Uzbek. By applying principles from generative grammar, Lexical-Functional Grammar (LFG), and Role and Reference Grammar (RRG), the study compares how these languages encode the core components of a clause through syntax and morphology. English, with its rigid word order and limited morphology, relies on positional cues; German balances flexible word order with case-marking; and Uzbek, as an agglutinative SOV language, encodes argument roles predominantly via morphology and verbal agreement, allowing pro-drop constructions. The analysis highlights how each language maintains the integrity of the core clause structure and assigns semantic roles, despite differing surface strategies. These findings reinforce the universal role of nuclear elements in clause architecture while revealing language-specific mechanisms of their realization at the syntax-semantics interface.

Key words: nuclear elements, syntactic-semantic interface, clause structure, English, German, Uzbek, case marking, word order, pro-drop, Lexical-Functional Grammar, Role and Reference Grammar, typology

Introduction

In syntactic theory, nuclear elements of a clause refer to the central constituents of the clause: typically, the verb (predicate) and its essential arguments (such as subject and object). In other words, the nucleus is the predicate itself, and the core consists of the nucleus plus its obligatory arguments, distinguished from the periphery of optional modifiers. These nuclear elements form the backbone of clause structure and carry the fundamental semantic relationships (who did what to whom). This article examines how nuclear elements function at the syntax-semantics interface in three typologically distinct languages: English, German, and Uzbek. We

define 'nuclear elements' as the verb predicate together with its required arguments (like subject and direct object), and we analyze how these elements are structured syntactically and interpreted semantically in each language [1].

By comparing a Germanic SVO language with largely fixed word order (English), a Germanic language with mixed word-order patterns and case marking (German), and a Turkic SOV language with rich agglutinative morphology (Uzbek), we identify both cross-linguistic similarities and differences in the realization of core clause constituents. The discussion is grounded in linguistic theory, drawing on generative grammar (e.g., parameterization of word order and null arguments), functional grammar approaches (notions of core vs. periphery, information structure), and Lexical-Functional Grammar (mapping between semantic roles and grammatical functions). We use concrete examples from each language to illustrate typical patterns and highlight contrasts. The goal is to shed light on how the syntactic positions and morphological markings of nuclear elements correspond to their semantic roles across these three languages [2].

Materials and Methods

This study employs a comparative descriptive methodology, informed by theoretical frameworks focused on the syntax–semantics interface. We undertook a contrastive analysis of English, German, and Uzbek clause structures based on existing grammatical descriptions and corpus examples. Key theoretical perspectives that guide our analysis include:

- Generative Grammar (GB/Minimalism) – particularly the idea that cross-linguistic differences can be captured by parameters (such as head-directionality and the pro-drop parameter). For example, generative theory classifies languages as head-initial (head precedes complements) versus head-final (head follows complements). This helps explain why English verbs precede their objects (VO order) whereas Uzbek verbs follow their objects (OV order), with German exhibiting mixed patterns. We also consider the Null Subject Parameter, whereby languages with rich verb agreement (like Uzbek) allow pronominal subjects to be dropped, in contrast to non-pro-drop languages like English and German [3].
- Functional Grammar and Role & Reference Grammar (RRG) – which emphasize the semantic roles and communicative functions of clause constituents. We adopt the notion of the layered structure of the clause from RRG: the predicate and its arguments form the core, and optional adjuncts form the periphery. This provides a universal template to compare how English, German, and Uzbek realize core arguments versus peripheral elements, and how semantic valence (the number and type of participants a

verb requires) is syntactically encoded [4].

- Lexical-Functional Grammar (LFG) – which provides a formalism for linking semantic roles to grammatical functions (like subject, object) regardless of surface word order. LFG's separation of constituent structure (c-structure, dealing with phrase order and hierarchy) and functional structure (f-structure, dealing with abstract roles such as subject/object) allows us to analyze languages with flexible word order (German, Uzbek) without losing the notion of a consistent subject or object role. This helps to explain how, for instance, an object can appear before the subject in German without changing its underlying role due to case marking [5].

We gathered example sentences to illustrate typical constructions in each language, ensuring that each example clearly shows the predicate and its core arguments. These examples were either drawn from linguistic literature or constructed based on grammatical descriptions (and validated by native-speaker reports in the literature). We then analyzed each example to identify how syntactic indicators (word order, inflectional morphology, function words) signal the semantic roles of the nuclear elements. The Results section presents the findings for each language, and the Discussion synthesizes these findings, comparing the languages and relating them to theoretical expectations. Citations to scholarly sources and grammatical descriptions are provided to support each generalization [6].

Results and Discussion

English: Rigid Syntax and Limited Morphology

English exemplifies a language where the syntactic configuration of nuclear elements is highly constrained and carries much of the burden of indicating who is doing what to whom. In a typical English declarative clause, the subject (S) precedes the verb (V), which in turn precedes the object (O). This fixed SVO word order is the primary means of marking grammatical relations in English. For example, in the sentence "The dog bit the man.", the subject the dog must come before the verb bit, and the object the man follows the verb. Any other ordering (e.g., "Bit the dog the man") is ungrammatical or changes meaning drastically. In the vast majority of clauses, English maintains this order of nuclear elements, and deviations are only allowed in specific constructions (such as questions, inversions, or topicalization with heavy constraints) [7].

One consequence of fixed word order is that English has almost no case morphology on lexical nouns to signal their syntactic roles. Nouns and articles generally have the same form whether they function as subject or object; it is word position that disambiguates their role. Only

pronouns in English carry remnants of a case system (e.g., he vs him, she vs her), and even then, the subject pronoun must appear before the verb and the object pronoun after. For instance, compare "She loves him" versus "Him loves she", where only the first is grammatical. The semantic roles (agent vs. patient) are thus tightly coupled with syntactic position in English: the first NP in a clause is typically interpreted as the agent/experiencer (the doer), and the following NP as the patient/theme (the undergoer), unless a passive construction or other inversion is used. English relies on prepositions to mark many semantic relationships (for example, to marks an indirect object as in "She gave a book to her friend"), but for the core subject and object, position is key [8].

Because of this reliance on syntax over morphology, English clauses require overt subjects in almost all cases. English is not a pro-drop language: a pronoun or noun subject must be present (except in imperatives or casual ellipsis). For example, one cannot normally say "Loves him" in English to mean "She loves him"; the subject pronoun she cannot be dropped. This differs from languages with rich verb inflection. In generative terms, English has the pro-drop parameter set to "off," correlating with its impoverished agreement morphology (English verbs carry minimal person/number marking, e.g., only an -s for third person singular present). The result is that the syntax–semantics mapping in English is straightforward: each core semantic participant must be mapped to an overt syntactic position (subject or object) in the clause [9].

The verb's theta roles (semantic roles like agent, theme, recipient) are assigned to structurally fixed positions (by the Theta Criterion in GB theory). For instance, a transitive verb like chase will assign an agent role to the subject position and a theme role to the object position in English. If we alter the syntax (as in passives: "The cat was chased by the dog"), we also alter which position is subject vs object, thereby changing how roles are aligned (the theme becomes the syntactic subject) – but even in the passive, English maintains the requirement of an explicit subject (sometimes a dummy it/there if no semantic agent is present) [10].

To summarize English: the nuclear elements (Subject–Verb–Object) form a tightly ordered sequence in the clause. Nuclear elements are syntactically central and obligatory, whereas peripheral elements (like adverbs or prepositional phrases) can be omitted or moved more freely. Indeed, adjuncts in English show greater positional flexibility (e.g., "Yesterday, the dog bit the man" vs "The dog bit the man yesterday") compared to the fixed internal order of S, V, O. The clear division between core arguments and adjuncts in English illustrates the syntax–semantics interface: the grammar rigidly positions core arguments to reflect their semantic roles, while adjuncts carry supplementary semantic information and can be placed for pragmatic effect without altering the core propositional meaning [11].

German: Case-Marked Core and Flexible Order

German presents a contrasting profile: it too has identifiable nuclear elements (verb, subject, object), but syntactic positioning is more flexible due to a richer system of morphological case marking. German nouns and determiners inflect for case (Nominal, Accusative, Dative, Genitive), which explicitly marks their grammatical function in the clause. For example, *der Mann* (the man) is nominative (could be a subject), while *den Mann* is accusative (clearly a direct object). Because the subject NP is marked by nominative case and the object by accusative case, their roles are clear regardless of position. This allows German to tolerate word orders that English cannot [12].

In German main clauses, the finite verb is generally required to appear in the second position of the sentence (the V2 word order characteristic of Germanic languages). What occupies the first position can be the subject or another constituent (object, adverb, etc.), depending on topicalization or focus. Consequently, while the unmarked order in a simple statement is often Subject–Verb–Object (e.g., "Die Katze beißt den Hund." – The cat bites the dog), it is equally grammatical to front the object: "Den Hund beißt die Katze." – literally "The dog-ACC bites the cat-NOM". In the latter sentence, *den Hund* (the dog) is marked accusative and *die Katze* (the cat) is nominative, so despite the object coming first, we understand that the cat is still the agent doing the biting, and the dog is the patient being bitten. The verb *beißt* remains in second position [13].

These alternations illustrate that German uses morphology (case inflections) to signal semantic roles, allowing freedom in syntactic arrangements for pragmatic purposes. Any single constituent can occupy the pre-verbal slot in main clauses without causing confusion about roles, as long as case marking is clear. This flexibility is often used to emphasize or topicalize particular elements (for example, fronting an object can give it contrastive focus or mark a theme) [14].

In subordinate clauses, German syntax diverges further from English: the finite verb typically appears at the end of the clause (an underlying SOV order) when introduced by a subordinating conjunction. For instance, "...weil die Katze den Hund beißt" means "...because the cat bites the dog", but literally "because the cat the dog bites" with the verb last [15].

Here German reveals its historical head-final character (similar to Turkic or Japanese in verb-final order). Still, case marking (*die Katze* NOM, *den Hund* ACC) disambiguates the roles. German thus employs both head-initial and head-final patterns: V2 in main clauses, VF (verb-final) in subordinate clauses. The nuclear elements in German can be separated by other material and need not appear in a strict left-to-right agent-verb-patient sequence, unlike English. However, they remain clearly identifiable through a combination of position (verb-

second or verb-final placement) and inflectional marking [16].

Semantically, German maps roles to syntax in a nominative–accusative alignment, just like English (subjects of transitive verbs are agents by default, direct objects are patients, etc., in active voice). The difference is that German can rely on case morphology to maintain this mapping even when the surface order changes. For example, in passive constructions, the former object becomes a nominative subject (*Der Hund wurde von der Katze gebissen* – "The dog was bitten by the cat"), similar to English, but again case marking (and the preposition *von* for the agent) helps indicate roles. German also allows impersonal constructions that English disallows, such as "*Es wird getanzt*" (literally "It is danced", meaning "People are dancing"), where no semantic agent is explicitly present – a dummy *es* fills the subject position, showing that German, like English, generally requires a subject in finite clauses. Standard German is not a pro-drop language either; verbal agreement, while richer than English (e.g., distinct endings in person/number), is not "rich" enough to routinely drop subject pronouns. Subjects can be omitted only in limited contexts (commands, informal conversation, diary style) or when recoverable from coordination [17].

In sum, German's syntactic-semantic interface balances morphology and word order. The nuclear elements (predicate and core arguments) are present in every clause, but their linear arrangement can vary. German grammar entrusts case inflection with identifying the semantic roles of subject and object, giving the language a more flexible syntactic structure [18].

This flexibility interacts with information structure: speakers can promote different constituents to clause-initial position for emphasis without losing clarity about "who did what." The presence of both fixed positional constraints (V2, verb-final) and morphological markers in German exemplifies an intermediary strategy between a rigid analytic language like English and a highly agglutinative language like Uzbek. The core of the clause is still clearly delineated – verbs and obligatory arguments – but the syntax permits more permutations, reflecting a somewhat looser coupling between syntactic position and semantic role (compared to English), thanks to the additional morphosyntactic cues [19].

Uzbek: Agglutinative Structure and Semantic Marking

Uzbek, a Turkic language, provides a striking contrast to both English and German in how nuclear elements are realized. Uzbek is a head-final, Subject–Object–Verb (SOV) language, meaning that in an unmarked declarative sentence the subject comes first, the object second, and the verb last. For example, a straightforward Uzbek sentence "*Men odamni ko'raman*" translates to "I see the man," but word-for-word it is "I (Men) the-man-ACC (*odamni*) see (*ko'raman*)", with the verb at the end. Here *odam-ni* carries the suffix *-ni*, the accusative case

marker, indicating that "the man" is a definite direct object. The nuclear elements in this Uzbek clause are clearly the subject Men ("I"), the direct object odamni ("the man"), and the predicate ko'raman ("see-[1SG]"), and their arrangement is core rigidly SOV [20].

Despite this seemingly rigid SOV template, Uzbek syntax allows some flexibility for pragmatic reasons (focus or topic fronting), but it is generally more rigid than, say, Russian. The crucial point is that morphological marking carries a heavy semantic load in Uzbek. Uzbek is an agglutinative language with a rich case system: nouns can take suffixes for at least six grammatical cases (such as nominative, genitive, dative, accusative, locative, ablative). The nominative case (often called the common case) is zero-marked and typically denotes the subject (e.g., kitob "book" could be subject), whereas the accusative case in Uzbek (suffix -ni) explicitly marks a direct object, particularly when it is definite or specific. Importantly, Uzbek exhibits differential object marking: an indefinite or non-specific object may appear without the accusative suffix, whereas a definite/specific object requires -ni. For example, Men kitob o'qiyman could mean "I read a book" (with kitob lacking a suffix, an indefinite object), while Men kitobni o'qiyman means "I read the book" (specific book, marked with -ni). This is a semantic conditioning of a syntactic marker, demonstrating a direct syntax-semantics interface: the presence of a case suffix depends on the definiteness (a semantic property) of the object [21].

The verb in Uzbek carries extensive inflectional morphology for tense, aspect, mood, and crucially agreement with the subject in person/number. For instance, in ko'raman ("see-1SG"), the -man ending indicates first person singular subject. Because the verb itself indicates the subject, Uzbek (like other Turkic languages) is a pro-drop language: subject pronouns can be omitted when contextually clear. It is perfectly normal in Uzbek to say "Odamni ko'ryapman" – "[I] am seeing the man" – without explicitly saying men ("I"), since the verb's -yapman ending already encodes a first-person singular subject. This is in stark contrast to English and similar to languages like Italian or Japanese, reflecting the classic generative explanation that rich agreement allows null subjects. The nuclear subject in Uzbek can thus be an implied element rather than an overt noun or pronoun, as long as the verbal morphology identifies it. Likewise, Uzbek can drop other pronouns when recoverable (null objects), a topic studied in Turkic syntax, though object drop is more limited and context-dependent [22].

Syntactically, Uzbek subordinate clauses also maintain a head-final structure (e.g., complement clauses or relative clauses precede the verb or noun they modify). The SOV order is remarkably consistent across contexts (unlike German, which switches in main vs. subordinate clauses). This uniform head-finality extends to other phrases: Uzbek uses postpositions (where English would use prepositions) – for example, uydan keyin ("house-ABL after") for "after the house". This overall left-branching structure is a hallmark of head-

final languages [23].

Semantically, Uzbek aligns with a nominative-accusative system: the subject of a transitive verb is treated similarly to the subject of an intransitive (both are nominative, unmarked), and the direct object of a transitive is marked accusative. This means the semantic agent is usually the nominative subject and the patient the accusative object in active sentences, just as in English and German. Uzbek can passivize sentences (often using a verbal voice suffix) to promote an object to subject status, again similar in semantic effect to English/German passives, though the mechanism is morphological (adding a suffix to the verb) rather than periphrastic. Information structure in Uzbek can also be signaled by word order to some extent (for example, focusing an element by fronting it before the subject), but because word order is less flexible than in highly inflected free-word-order languages, Uzbek speakers more often rely on particles or intonation for emphasizing parts of the clause. Still, if needed, Uzbek can front an object or adverb for topicalization, since case marking prevents ambiguity; e.g., "Kitobni men o'qidim" could mean "It was the book that I read," with *kitob-ni* (book-ACC) fronted for emphasis [24].

In summary, Uzbek's syntax–semantics interface is characterized by rich morphology and a strict base order. The nuclear elements are overtly marked: the verb comes last and bears inflections that encode the subject, while the object (if definite) carries an accusative suffix. The clear marking of grammatical relations through affixes means that, in terms of comprehension, Uzbek speakers rely less on position and more on morphological cues to interpret semantic roles. The core arguments (subject, object) and the predicate are tightly integrated through agreement and case marking, illustrating a very direct link between syntax and semantics: the grammar explicitly flags who is doer and done-to via affixes. Uzbek thus highlights the morphosyntactic side of the syntax-semantics interface, complementing the English emphasis on syntactic position and the German balance of both strategies [25].

Cross-Linguistic Similarities and Differences: All three languages share the fundamental trait of distinguishing core participants (nuclear elements) from peripheral information, but they implement this distinction in different ways:

- **Clause Organization:** English and German are nominative–accusative languages in alignment, as is Uzbek, meaning the notion of a "subject" (agent of transitives, single argument of intransitives) vs "object" (patient/theme of transitives) is applicable in all. However, English and German are often described as SVO word order languages in typology, whereas Uzbek is SOV. German occupies an interesting middle ground: in main clauses it appears SVO/V2 (with the verb second and often the subject first by default), but in subordinate clauses it is SOV. In terms of generative parameters, English is predominantly head-initial, Uzbek is head-final,

and German shows mixed head-directionality. This correlates with other features (English/German use prepositions vs. Uzbek postpositions, etc.). Despite these differences, at a deeper level each language's grammar ensures that the verb predicate and its necessary arguments form a unit (the core), which is differentiated from optional adjuncts (the periphery in RRG terms). In all three languages, adjuncts like time or place can often be omitted or moved without affecting grammaticality, whereas omitting a required argument or the verb yields ungrammaticality (except for null arguments allowed by pro-drop).

- **Role of Morphology vs Word Order:** There is a clear trade-off between word order rigidity and morphological marking. English is on the extreme end of analytic syntax: fixed word order and minimal inflection, so syntax (order) carries the semantic load of identifying who is subject vs object. Uzbek is at the opposite end: extensive inflection (agglutinative morphology for case and agreement) and a relatively strict underlying order, but within that order, morphology disambiguates roles, allowing some flexibility for emphasis. German combines moderate inflection (four-case system on nouns, verb conjugation) with more flexible word order than English; thus, it uses both position and morphology. The Universal Dependencies guidance notes that in free-word-order languages, case inflections distinguish subject from object, whereas in fixed-order languages these functions are distinguished by position. Our comparison exactly reflects this principle: English (fixed order, little case) vs. German/Uzbek (freer order due to case marking).

- **Null Arguments (Pro-Drop):** Another dimension of the syntax-semantics interface is whether the language permits implicit nuclear elements. English (and German) generally do not allow dropping the subject or object – every semantic argument must be syntactically realized (except in special constructs). Uzbek, however, freely allows null subjects (and sometimes objects) because the verb's morphology encodes the missing element. This difference is captured in generative grammar by the pro-drop parameter and is empirically linked to the richness of verbal agreement. The fact that Uzbek verbs carry person/number suffixes for the subject is what licenses the omission of an explicit pronoun. In contrast, English verbs do not provide enough information (aside from the -s vs base form, which is not person-specific beyond 3rd singular), so a subject pronoun is required to recover the semantics. German, even with more verb forms, still doesn't drop subjects in standard usage, partly because its agreement, while richer than English, is not as elaborate as in many pro-drop languages (and perhaps also due to historical/pragmatic conventions). From a functional perspective, languages like Uzbek prioritize economy in not stating information already present in the verb, whereas English prioritizes explicitness in syntax over morphology [26].

- **Syntactic Flexibility and Information Structure:** The degree of word-order flexibility in marking nuclear elements has implications for how information structure (topic, focus) is

handled. German can use word order alternations (thanks to case marking) to foreground different parts of the message (e.g., fronting an object or an adverbial without altering core meaning). Uzbek has some flexibility but less so; focus is often indicated by particles (e.g. -ni can also act as a focus marker on indefinites in some Turkic languages) or simply by stress, since scrambling is possible but can sound marked. English, with its rigid SVO, must resort to intonation or cleft constructions ("It is X that...") to do what German does by fronting or what Uzbek might do by either case marking or verb morphology. All three languages, however, respect the division between core arguments vs adjuncts. In English and German, adjuncts (peripheral elements like time/place adverbs) can be placed at various positions (beginning or end of clause) without breaking grammatical rules, whereas the relative order of subject, verb, object (the core) is much less alterable (especially in English). In Uzbek, adjuncts tend to come before the verb as well (often following the object), but they too are not part of the nucleus and can be omitted or moved to some extent. This universality of a core vs periphery distinction, as highlighted in RRG, suggests a common semantic basis: all three languages treat the verb and its necessary participants as a unit that expresses a proposition, and treat other information as additional, modifiable detail [27].

- Theoretical Implications: Generative grammar would describe English, German, and Uzbek in terms of different parameter settings. Head-Directionality Parameter: English is head-initial ($XP \rightarrow X \dots$), Uzbek head-final ($XP \rightarrow \dots X$), and German shows both head-final (VP in subordinate clauses, NP generally head-initial with prepositions, etc.) and head-initial tendencies. These structural settings lead to the surface word order differences of VO vs OV, which we observed. Null Subject Parameter: English and German are [-pro-drop], Uzbek is [+pro-drop]. Case Parameter: English largely lacks nominal case inflections (aside from pronouns), whereas German and Uzbek have rich case systems; a theory like Principles and Parameters might handle this through a morphology module or via different syntactic licensing conditions for noun phrases. In Lexical-Functional Grammar terms, all three languages assign a subject grammatical function ([SUBJ]) to one argument and an object function ([OBJ]) to another in f-structure, but the realization in c-structure differs: English [SUBJ] is simply the first NP in S, German [SUBJ] is the NP with nominative case (position can vary), Uzbek [SUBJ] is the NP with zero case ending or personal agreement on the verb. LFG's uniform treatment of functions helps explain how translation is possible among these languages despite surface differences: the underlying functional roles correspond even if one language uses word order and another uses affixes. Functionalist theories (e.g., Halliday's Systemic Functional Grammar) would note that in all three languages the experiential meanings (who did what to whom) are encoded by the combination of a Process (verb) and Participants (subject, object), while Circumstances (adjuncts) are separate; the differences lie

in whether Participant roles are shown by position or morphology. Role and Reference Grammar explicitly captures these contrasts by representing all three languages with a similar layered clause structure, differing only in how the linkage between semantic roles and syntactic slots is accomplished (through positional constraints in English, case marking in German/Uzbek, and agreement in Uzbek, etc.). The fact that the essential clause structure (core arguments + predicate) is present in each language supports the RRG claim of universality of the layered structure, even though the linear order and morphosyntactic realisation vary.

Illustrative Example Revisited: To crystallize the comparison, consider once more the simple proposition "I saw my brother" across the three languages:

- English: I saw my brother. – S V O, no case marking (word order alone tells us who is the seer and who is seen).
- German: Ich sah meinen Bruder. (Or in present tense Ich sehe meinen Bruder.) – also S V O in this neutral order, but meinen Bruder is marked accusative (denoting him as object). If we rearrange: Meinen Bruder sah ich. – O V S order is also possible; meinen (ACC) vs ich (implicit NOM case) indicates that I am still the one who saw and my brother was seen, despite the object coming first.
- Uzbek: Men ukamni ko'rdim. – literally "I my-brother-ACC saw" – S O V with the object marked by -ni and the verb ko'rdim marked for first person singular subject. We could drop Men and just say Ukamni ko'rdim, which still means "I saw my brother" because -dim on the verb signals the first-person subject; the object is unmistakably marked by -ni. The core meaning is carried by the nucleus (ko'r- "see") and its arguments (implicit "I" and explicit "brother"), with morphology doing the job that word order does in English.

Through this example and others, we see the division of labor between syntax and morphology in encoding semantics. English uses rigid syntax, German uses a mix, Uzbek relies heavily on morphology. Nonetheless, each language must satisfy the same semantic requirements: the verb's argument slots must be filled (explicitly or implicitly) and identifiable to the listener/reader. This is the essence of the syntactic-semantic interface for nuclear elements: regardless of surface strategy, languages provide mechanisms to link semantic roles (like agent and patient) to syntactic structures (like subject and object). The differences observed are quantitative and qualitative variations in those mechanisms.

Conclusion

By comparing English, German, and Uzbek, we observe that while the concept of nuclear clause elements is universal, languages differ in how transparently and by what means the syntax reflects the underlying semantics. English offers a clear window into the clause's

semantics through a fixed word order; German adds a layer of complexity with case-inflected flexibility, and Uzbek encodes much of the semantic structure in agglutinative morphology, allowing pronouns to vanish and word order to remain consistently verb-final. The study underscores the importance of examining both syntax and morphology together: only by looking at their interface can we fully understand how different languages achieve the fundamental task of organizing who does what to whom in an utterance. Linguistic theories that integrate syntax and semantics (such as RRG and LFG) are particularly useful for explaining these cross-linguistic patterns, as they account for both universal tendencies (e.g., every clause has a predicate and core arguments) and language-specific realizations (e.g., whether an argument is identified by position, case marking, or agreement). Future research could delve deeper into edge cases and complex sentences (such as ditransitives or clause embedding) to further explore how each language manages the interface for multiple core arguments, but the present analysis provides a foundational comparison of the principal clause architecture in English, German, and Uzbek, grounded in both data and theory.

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