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Exploring Semantic and Syntactic Properties of Agent Theta Roles in Urdu

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Article Details

ABSTRACT

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The study's aim is to explore the syntactic and semantic properties of agent theta roles in Urdu language and to discuss how agents are structurally placed and semantically interpreted across diverse sentence forms. Urdu language has been widely studied for its morphological and phonological features, limited attention has been given to the semantic and syntactic features of agent theta roles of Urdu language. The main objective of this qualitative descriptive study was to explore the various theta roles and theta criterion semantically and syntactically, grounded in Chomsky's one of GB module theta theory (Chomsky's, 1981). Data were collected from the native Urdu speakers from Lahore, central Punjab while utilizing snowball sampling techniques. Carnie's (2007) thematic role framework guided the analysis, focusing on the behavior of agentive roles in intransitive, transitive, and causative constructions. The analysis revealed that the verbs are classified based on the number and type of core arguments they require—ranging from single roles (such as agent, theme, experiencer, or patient) to dual or triple roles (including goal and source). The findings indicate that Urdu verbs demonstrate flexibility in assigning agent roles, which vary depending on sentence structure and verb type. The study also identifies how causative and inchoative verb forms influence theta role assignment. These insights enhance understanding of Urdu's syntactic and semantic systems. These findings suggest that various agentive roles of Urdu offer valuable implications for comparative linguistics, natural language processing, and educational linguistics. Furthermore, it opens the path for Asian languages to compare linguistics patterns and explore semantic and syntactic association at broader level.

INTRODUCTION

Languages differ in structure, though all serve the purpose of communication. Urdu uses Subject-Object-Verb (SOV) order, unlike English's Subject-Verb-Object (SVO) order. They also differ in phonology, semantics, and morphology. Syntax and semantics are key to understanding how meaning is built (Jatly, 2013). Studying agent roles is essential, as agents often shape meaning. While Urdu studies focus on grammar and morphology, syntax and semantics are less explored (Pitafi, 2009; Fehmida, 2011).

Agent roles are well-studied in other languages but less so in Urdu. Comparing Urdu and English agents reveals patterns useful for translation, NLP, and cross-linguistic analysis, improving tools for Urdu users. Semantic roles are studied across three levels: participant, theta, and syntactic relations. Theta roles depend on sentence structure and interlink elements, requiring context for analysis (Lehmann, 2005). Thematic roles have been widely studied, including Panini (Dowty, 1989) and Fillmore's "deep case" (1967).

This study examines agentive roles in Urdu, focusing on their semantic and syntactic function. Though agents are key to meaning, Urdu-based research is limited. Urdu, with 220 million native and 400 million daily users, is a major South Asian language. It is Pakistan's national language and is officially used in India's Uttar Pradesh.

THE MINIMALIST PROGRAM

The Minimalist Program (MP), introduced by Chomsky (1993, 1995), traces its roots to Government Binding (GB) theory (Chomsky, 1981). While MP draws from GB, it differs in key aspects. Chomsky's *Syntactic Structures* (1957) sparked criticism about the relationship between syntax and semantics. He argued that syntax is independent of meaning, with semantics merely interpreting syntax. However, scholars like Fillmore and Halliday disagreed, asserting that meaning is integral to syntax.

In 1965, Chomsky's Standard Theory placed meaning at the Deep Structure, acknowledging some syntax-semantics interaction, though it was limited. Jackendoff (1972) critiqued the Standard Theory for inadequately addressing the syntax-semantics link, despite Katz's support, highlighting its failure to fully connect the two. In 1968, Fillmore's *The Case for Case* argued that "case" should be central to every language's grammar, aiming to show its universal relevance. In 1977, Fillmore revisited this in *The Case for Case Reopened*, addressing misunderstandings and clarifying his original theory. He emphasized that deep cases reflect semantic relationships, not contrastive grammatical categories, and focus on core roles like

subject and object, determined by meaning. Fillmore (1977:61) introduced the case frame, linking sentence structure to the participants in a described event, assigning specific semantic and syntactic roles. His theory, which evolved into 'Frame Semantics,' highlights the distinct roles predicates assign to arguments, leading to the concept of semantic roles.

THE CONCEPT OF SEMANTIC ROLES

Isolated words limit communication; they must work together. Grammatical elements like affixes, particles, and syntactic categories contribute distinct meanings, shaping sentence structure and meaning (Cruse, 2000:276). Semantic roles, or "Theta roles," emerged in the 1960s–1970s to categorize arguments of predicates into participant types central to grammar. Researchers such as Gruber (1965), Fillmore (1968), Dowty (1968), and Jackendoff (1972) contributed to this field. Jackendoff emphasized a semantic approach where syntax reflects meaning, with syntactic variations mirroring meaningful distinctions.

Meyers (2011) defines roles as the connection between predicates and arguments. Theta roles categorize arguments to explain how verbs, their arguments, and described situations relate. Yuchau (2003:198) references Van Valin and LaPolla (1997), noting that predicates, especially verbs, encode the core meaning of a sentence, with noun phrases identifying participants. The roles depend on the predicate's nature and the arguments' meanings.

THETA THEORY AS A PRINCIPLE OF GRAMMAR

Chomsky's Theta Theory (1981) focuses on assigning thematic roles (theta roles) to noun phrases (NPs), drawing inspiration from Jackendoff's work on semantics. Theta Theory asserts that each NP has a unique theta role. NPs include names, pronouns, and variables, but not idioms or expletives. A syntactic head assigns theta roles within the argument structure, with pronouns and pro-forms counted as arguments. Objects always get theta roles, while subjects do so only when they are arguments, not expletives. The theory connects NPs to verbs for meaning.

Chomsky (1982) highlighted the role of theta in selecting verb complements, noting in 1995 that verbs use merge to select specifiers and complements, creating valid structures when roles are assigned. Chomsky (1995a:246–248) states that a phrase head, like a verb in a VP, selects its specifier and complement during merge to create a convergent structure. This only occurs if the argument satisfies a theta role based on the verb's lexical features.

According to the m-command principle: "A m-commands B if neither dominates the other, and B is dominated by A's first maximal projection". Government and command are essential in

grammar and theta role assignment. Two types exist: antecedent and head government. Valid links define proper government, with head government crucial in theta theory as roles arise from head-argument links. Verbs assign roles within VP to their complements. [Spec, IP] may or may not be a role-bearing position. In (1), "*Mudassir appears to have harmed himself*," "Mudassir" links to "harm," forming a theta chain and sharing its role.

In (1), "*has harmed*" assigns Akbar the agent role. The expletive "*it*" fills the subject slot but gets no role. VPISH states all theta-marked elements are in VP, with subjects in its specifier.

RELEVANCE OF THETA-CRITERION

Chomsky (1981:36) defines the Theta-criterion as a one-to-one link: each argument gets one theta role, and each role is assigned to one argument. The number of arguments must match the verb's lexical roles, reflecting specific thematic links. This is shown in examples (2) and (3).

1a. Thematic structure of 'kill'

1b. *Zain killed Mudassir*.

(1a) shows that the verb *kill* requires two roles: agent and patient. In (1b), each role is matched with one argument, meeting the 1:1 theta-role rule, making the sentence grammatical. Now consider examples (2–4):

2. *Zain killed*.

3. *Killed Mudassir*.

4. *Mudassir was killed*.

(2) is ungrammatical as it lacks the patient, Mudassir. Similarly, (3) is incorrect due to the missing agent. (4), however, is valid with one argument; the passive "*killed*" implies an agent.

(5a) is faulty for having more arguments than the verb requires:

5a. *Zain killed Mudassir, Anees*.

In (5a), Anees lacks a theta role, as Zain and Mudassir already fill the two required ones, violating the theta criterion and making the sentence ungrammatical. In (5b), combining Mudassir and Anees into one NP lets them share the patient role, making the sentence correct:

5b. *Zain killed Mudassir and Anees*.

The predicate forms the core of a sentence and demands one or more arguments according to its lexical properties. Without these arguments, the sentence lacks crucial information.

For example:

6a. Put <agent, theme, location>

6b. He put the book on the table.

6c. He put the book.

(6c) is ungrammatical because the locative argument is missing.

The verb *keep*, similar to *put*, requires only two arguments. As a result:

7a. he preserved the book.

7b. He held the book close to him.

(7a) and (7b) have the same meaning, with *keep* indicating the subject retains the object.

An NP must link to the VP head to get a theta role. The VP Internal Subject Hypothesis (VPISH) suggests the subject also originates within the VP. Expletives like "*there*" and "*it*" don't receive theta roles as they're not true arguments and don't originate in the VP. The theta criterion prevents NP movement between theta positions to avoid assigning multiple theta roles.

STATEMENT OF PROBLEM

The purpose of this research is to find out the syntactic and semantic properties of theta roles in the Urdu language and to explore the distributions and the placement of thetas in the Urdu language. No doubt, there are some studies that have worked on the Urdu language, but there are still some gaps that are supposed to be covered; theta roles are the most important one.

RESEARCH OBJECTIVES

The objectives of this research are:

- To explore the syntactic patterns of Urdu sentences with a focus on the positioning and distribution of agent theta roles and examine how thematic roles are assigned in Urdu sentences, with particular emphasis on how agent roles are given to various arguments. Explore the mechanisms of role assignment and the factors that affect this process.
- To examine how agents are structurally represented across various sentence forms—including transitive, intransitive, and passive constructions—in the language.

These objectives seek to investigate the syntactic and semantic dimensions of agent theta roles in Urdu, incorporating linguistic, cognitive, and educational viewpoints for a well-rounded analysis of the subject.

LITERATURE REVIEW

Syntax studies sentence structure and how words form phrases and sentences. Tallerman (2005) defines it as examining word connections to create meaningful structures, while the *Encyclopedia Britannica* (2009) describes it as the study of word combinations. Words first form phrases, which then combine to form sentences. Carnie (2007) explains syntax as the study of word combinations within phrases and sentences, linking sounds to meaning. He views syntax as a branch of cognitive science, applying scientific principles to sentence formation governed by grammar. Matthews (1982:1) explains that "syntax," derived from Greek, means "arranging together" and refers to the branch of grammar concerned with word order in sentences to convey meaning, with or without inflections. Syntax studies sentence structure, which varies across languages. For instance, in English, the subject precedes the verb, and the direct object follows the verb.

ASPECT OF SYNTACTIC STRUCTURE

This section covers two key aspects of sentence structure: relational and constituent structures. Relational structure focuses on the roles of sentence elements (subjects, objects, modifiers), while constituent structure examines how these elements form units like noun phrases (NP), verb phrases (VP) and prepositional phrases (PP). For example, in "The teacher reads a book in the library," "the teacher" is an NP, "in the library" is a PP, and "reads a book" is a VP. Transformations like passive voice show how elements retain relationships while changing roles. Constituents are marked with square brackets to show how elements combine. Both structures are essential for understanding syntax.

LEXICAL CATEGORIES

This section covers the main lexical categories, or parts of speech, including nouns, verbs, adjectives, adverbs, and prepositions. These categories are fundamental to sentence construction and are classified based on their grammatical functions in modern linguistics.

Nouns are divided into proper nouns (specific names) and common nouns (general terms), with common nouns further split into mass nouns (e.g., *water*) and count nouns (e.g., *ducks*). Pronouns replace nouns, typically referring to third-person entities. Verbs are classified by valence, indicating how many arguments they take: intransitive (one argument), transitive (two arguments), or ditransitive (three arguments). Verbs can express states (e.g., *know*), actions (e.g., *run*), or changes of state (e.g., *freeze*). Adjectives modify nouns, describing their properties, and can refer to either permanent or temporary traits. In languages like Spanish,

different verbs for "to be" distinguish these characteristics. Adverbs modify verbs, adjectives, or other adverbs, typically ending in *-ly* (e.g., *quickly*), and indicate manner, time, or degree (e.g., *very tall*). Some adverbs, such as *yesterday*, lack the *-ly* ending. Prepositions show relationships between nouns and other elements, either preceding (prepositions) or following (postpositions) their objects. Languages like Spanish and German use both types. Lexical categories are crucial for sentence structure, each serving a distinct grammatical role, and are key to analyzing sentence formation across languages.

Functional categories are vital for sentence structure: determiners, conjunctions, classifiers, complementizers, and particles. Determiners (e.g., *a*, *the*) specify nouns, while quantifiers (e.g., *many*, *every*) express quantity. Classifiers group nouns by type, common in Asian languages. Conjunctions link elements, complementizers introduce clauses, and particles (e.g., *indeed*) indicate discourse meaning. Lexical categories split into open classes (nouns, verbs) and closed classes (determiners, conjunctions). In syntax, they serve as arguments (core elements), predicates (actions/states), or modifiers (additional information). Some languages, like Lakhota, allow nouns or adjectives to function as predicates.

URDU LANGUAGE

Urdu, a melodious language from the Indo-Aryan family, holds cultural significance in South Asia, especially in India and Pakistan. Influenced by Persian, Arabic, and Turkish, it uses the Nasta'liq script, a variant of Persian. As a lingua franca, Urdu connects diverse communities, fostering communication and cultural exchange. Its rich literary tradition, from classical poetry to modern prose, highlights its importance in literature.

IMPORTANCE OF STUDYING URDU SYNTAX

Syntax, the study of sentence structure, is key to understanding how words form meaning in any language, including Urdu. It reveals the rules governing word order and sentence formation. Urdu's syntax reflects its cultural influences and contributes to the beauty of its expression, particularly in poetry and prose. Understanding it is essential to appreciating the language's depth and communicative power. The evolution of Urdu syntax mirrors the linguistic, cultural, and historical changes in the Indian subcontinent. Its development reflects the influence of various languages and socio-political shifts.

THETA THEORY

Theta Theory in Government and Binding follows the theta-criterion: one argument, one role (Crystal, 1980:28). It helps identify NP-movement positions. Predicates assign roles like agent

or theme to NPs, reflecting verb-meaning links. The criterion keeps argument structure intact. In the sentence "The cat caught the mouse," the subject is the agent, and the object is the theme—but roles don't always match syntactic positions. In passives, the structure is 'NP1—was—Passive Participle—NP2 (by NP3)'. NP1 is empty, NP2 is a lexical NP (theme), and NP3, if present, is the agent. NP1 has no theta role. Verbs like "appear" don't assign roles; NPs like "cat" and "mouse" get roles from the verb "catch" in the embedded clause. "It" acts as a dummy subject per English rules, while the deep structure adds an empty NP with no role.

In Government and Binding, Theta Theory applies the one argument—one role rule (Crystal, 1980:28). "Appear" has a surface subject, but it's not an argument (Malmkjær & Anderson, 1991:663). Theta assignment is the process of assigning thematic roles from the verb to its arguments. In the sentence "The boy opened the door with the key," the verb "open" is defined in the lexicon as:

OPEN, V → NP, PP (AGENT, THEME, INSTRUMENT)

In this example, the subject "The boy" is the Agent, the object "the door" is the Theme, and the prepositional phrase "with the key" is the Instrument. In the question "Who will Bill kiss?" the thematic roles are assigned as follows: "Who" is the Theme and Bill is the Agent. When analyzing "Bill will kiss who?" at deep structure, Bill is assigned as the subject and "who" as the topic, matching the verb "kiss" structure:

KISS, V → NP (AGENT, THEME)

WH movement and Move Aux create the surface structure "Who is going to kiss Bill?" but do not change the thematic roles, which are set at deep structure. The theta-criterion states each thematic role can appear only once in a phrase. For instance, consider the sentence:

*** THE BOYS OPENED THE DOOR USING THE KEY WITH A LOCK-PICK.**

This sentence is semantically incorrect because two noun phrases are assigned the instrument role. The theta-criterion ensures each argument has only one role. Without proper theta assignment, the sentence becomes both syntactically and semantically incorrect. In English, the possessor's role can be expressed as "the boy's red hat" or "Bill's red hat," where "the boy" and "Bill" are the possessors.

Semantic links between verbs and phrases are key to a speaker's linguistic knowledge and meaning (Fromkin et al., 2003:195). Cook and Newson (1988:49) argue that syntax also

deals with semantic relationships, such as who performs and who is affected by an action, which are essential for a sentence's syntactic meaning. Just observe the sentence:

***"SALLY HANDED JIM A RECORD,"**

There are three functions: Sally is the agent performing the action, the record is the object being altered, and Jim is the recipient. Principles and parameters theory focuses on θ -theory, which studies how lexical items function; for example, the verb "give" always assigns a Goal θ -role. In "She gave the money to charity," the verb "give" assigns three thematic roles. However, the verb "drink" does not work in the same way, as shown in the incorrect sentence: *"He is drinking it to somebody." For example:

"HE GAVE THE SUSPECT A BAD TIME,"

The verb "give" also assigns three θ -roles to its noun phrases. In this sentence "He gave the suspect a bad time," the noun phrases "He," "the suspect," and "a bad time" all receive θ -roles from the verb "give." These θ -roles represent specific semantic relationships between the elements, which are essential for the logical form (LF) and indirectly affect the overall meaning of the sentence. The θ -criterion ensures each noun phrase has a θ -role. Thematic roles like topic, source, and objective reflect the relationships between arguments in verbs like "throw," "buy," and "fly." Verbs affecting mental states, such as "awaken" or "frighten," assign the experiencer role. θ -assignment is key to syntactic structure. For example, in "The boy threw the red ball to the girl," "the ball" is the topic, and "the girl" is the objective.

ROLES IN THETA AND ARGUMENT STRUCTURE

The theta criterion ensures that every predicate assigns a thematic role, with each role given once and linked to one parameter (Haegeman, 1984). Theta roles are categorized as external (agents), internal (themes), and prediction (actions) (Williams, 1987). A single argument can hold multiple roles (Jackendoff, 1990). Agents, as external arguments, are not considered verbal arguments (Jackendoff, 1987; Williams, 1987; Grimshaw, 1990; Davis, 2009; Veesar et al., 2015a, 2015, 2016). Dowty (1991) also suggests that one argument can have several theta functions, though two arguments cannot share the same role. Arguments can be agents or patients, with roles defined by verbal entailments (Adger, 2007).

External and internal parameters play roles in expressions. In English, agents are usually subjects, and themes are objects, with subjects prioritized (Baker, 1996). Some verbs, like "give," take multiple arguments. Baker proposes a new thematic hierarchy, where the agent

is more important than the theme, and the theme more important than the goal, challenging Grimshaw's (1990) view.

Semantic roles are analyzed at three levels: participant roles, specific roles, and syntactic relationships. Theta roles follow clause structure, with arguments linking to one, two, or three roles (Lehmann, 2005). Theme structure connects meaning through themes and their causes (Wechsler, 2005). Linguists like Panini (in Dowty, 1989) and Fillmore (1968, 1977) have shaped semantic role theory, with Fillmore highlighting "deep situations." Theta roles depend on both structure and content (Bierwisch, 2006).

THETA ROLES AND THEMATIC RELATIONS

Theta roles describe the semantic functions of arguments, such as Agent, Theme, and Goal, based on verb behavior and action-participant relationships (Willits et al., 2007). Intuition alone isn't enough to determine verb-specific theta properties, prompting the creation of thematic hierarchies for structured analysis (Rappaport & Levin, 2007). However, these hierarchies may not apply universally due to language variations. Semantic properties are essential for assigning theta roles (Dowty, 1991), with Dowty challenging Fillmore's model and proposing that hierarchies better explain theta role organization (Veesar et al., 2015b).

Syntactic arguments can be internal or external. Beneficiary arguments often appear in ditransitive constructions, such as in the Hiaki language. There, causative verbs add external arguments, while applicative morphemes introduce internal ones (Harley, 2012). These external arguments are structural elements added to verbs (Marantz, 2012). The phenomenon of displacement, where elements appear out of place or are unspoken, is not purely syntactic (Hackl, 2013; Fillmore, 1968).

Theta roles are essentially thematic connections assigned to sentence arguments (Carnie, 2006). For instance, in the sentence "Ali handed Peter a present," Ali functions as both the agent and source, the present is the theme, and Peter is both the recipient and goal. This example shows how three arguments can yield multiple thematic roles. Verbs help signal these roles, guiding the semantic interpretation of a sentence (Radford, 2009). In the sentence "Police apprehended him," the noun *police* functions as the agent, or the one performing the action, while *him* represents the individual undergoing the action. This showcases how theta roles (or thematic roles) are used to clarify the functions of arguments in relation to a verb, illustrating how each participant contributes to the meaning of an event (Carnie, 2006). These roles also help express semantic restrictions known as selectional constraints.

Carnie (2006) defines an agent as someone who initiates an action, though agents can occupy various syntactic positions. An experiencer is someone who perceives or feels an event, while a theme is the element that is moved or affected. A goal refers to the target of motion, and a source indicates where that motion starts. A recipient is a specific type of goal that appears with verbs of transfer or possession. A location marks where the action takes place, an instrument is the tool used to perform the action, and a beneficiary is the individual who gains from the event. These thematic roles are essential for analyzing sentence structure and understanding how verbs interact with their arguments in conveying meaning.

SYNTAX-SEMANTICS INTERFACE

The Sémagramme project aims to develop tools for creating logical representations that capture the meaning of natural language. Since these representations are based on syntactic input, understanding how meaning arises from grammatical structure is essential. This involves modeling the syntax-semantics interface, which links syntax to interpretation. Key questions include: What syntactic representation contributes to semantic processing? What tools translate structure into meaning? And how compositional is the process—does meaning come from the individual parts and their arrangement?

In some linguistic theories, the connection between syntax and semantics is implicit, with meaning assigned during syntactic analysis. Unification grammars treat meaning as one feature among others, built through unification. Explicitly defining the interface, however, allows independent semantic interpretation, focusing on syntactic structures like tree diagrams or dependency graphs, rather than derivation methods. On a theoretical level, this modeling aids the study of compositionality, where complex meanings stem from simpler components. While accepted, the principle faces challenges, and defining "non-compositional" requires a clear compositional framework. Thus, formal models of syntax-semantics interaction are needed, which embody compositionality in computational terms.

RESEARCH METHODOLOGY

This research adopts a qualitative approach (Creswell, 2004) and aims to explore the syntactic and semantic characteristics of agent theta roles in the Urdu language. Specifically, it examines the thematic structure by focusing on the agentive relationship within sentences. The analysis is grounded in theta theory. The study aims to examine the function, importance, and behavior of agents in Urdu. It takes an exploratory and descriptive stance, utilizing the spoken Urdu

variety of Central Punjab to investigate the nature and role of agents. Data is gathered directly from native Urdu speakers.

The target population for this study consists of Urdu-speaking communities in the Lahore region of Punjab Pakistan. Data for this study was collected using the snowball sampling method, involving Urdu speakers residing in the Lahore area. The researcher obtained data from authentic instances of the Urdu language, sourced directly from native Urdu speakers.

The analysis is based on Cornie's (2007) framework of "Thematic Relations and Theta Roles," which serves as the primary analytical tool for this study. It explores how Urdu verbs assign agent theta roles and establish thematic relationships. The verb argument structure in Urdu is examined to determine the positioning and significance of agents.

THETA-CRITERION

The Theta-Criterion states that each argument receives one theta role, and every theta role is linked to only one argument (Cornie, 2007). Thematic relations connect the participants to the events they are involved in and also bridge the gap between syntax and semantics (David, 2009). Theta roles follow a specific hierarchy: Agents rank higher than Patients/Themes, and Patients/Themes are ranked above goals.

DATA ANALYSIS AND DISCUSSION

This research examines agent theta roles in Urdu, focusing on their syntactic and semantic features within the thematic structure. Based on theta theory, it analyzes the spoken form of Urdu in Central Punjab, using data from native speakers. The study explores various sentence structures to identify syntactic variations and how theta roles impact meaning from different interpretative perspectives.

THEMATIC STRUCTURE AND ARGUMENT

Thematic structure is determined by the predicate, assigning specific roles to arguments, which are classified as core (essential) or adjuncts (non-essential). This study focuses on core arguments that receive theta roles from verbs. Urdu verbs are categorized based on the roles they assign. Verb requirements differ: intransitive verbs need one argument, transitive verbs need two, and ditransitive verbs need three. A key difference between Urdu and English is how arguments are structured, e.g., an NP in Urdu may correspond to a PP in English, showing the non-direct mapping of argument structures.

TO HAVE ONE ARGUMENT

Urdu verbs that require only one essential argument are categorized based on the nature of that argument. These arguments may function as an agent, theme, patient, or experiencer, depending on the verb's semantic structure.

AGENT AS AN ESSENTIAL ARGUMENT

In Urdu, certain verbs require only a single argument, with the agent role being essential. For example, the verb "Daurna" (to run) functions with just one argument—the doer of the action. For instance;

(a)

Urdu	English	Theta Roles
Daurna:	To run	Agent
daud	Daur rha	Hai
daud	running	is
English Translation		
Daud is running		

In the above example, Daud, plays the role of essential argument for the verb of Daurna: the verb run has agent roles.

Many Urdu verbs require an agent as their core argument. Below are a few examples:

Verbs List as an Essential Argument (Agent)

Sr.	Urdu	English	Sentence
1	A:na	To come	Kuch log a:ey
2	Ja:na:	To go	Bachy school sa chaly gai

Urdu sentences with a single argument are well-structured, allowing accurate expression of arguments. Additionally, Urdu has causative verb alterations, where suffixes like "a:" or "wa:" are added. For example, "uthna" (to get up) becomes "utha:ana" or "uthwa:ana."

Experiencer as an Essential Argument

Some intransitive verbs in Urdu also take Experiencer as their essential arguments instead of agent and theme; experiencer is a state at where perceptual or cognitive happenings are supposed to be there either in mental or physical form;

Urdu	English	Theta Roles
Kha;sna:	To cough	Experiencer

Kamzu:r	A:dmi:	Acha:nak	Kha:ns utha:
Weak	Man	Suddenly	coughed
English Translation			
Weak man suddenly coughed			

In the sentence, the NP "kamzor admi" (weak man) is the experiencer, an essential argument for the verb "khā:sna" (to cough). The NP passively experiences coughing. Similarly, in English, "kamzor admi" is the experiencer. If the subject coughs intentionally to attract attention, it becomes an agent instead of an experiencer.

Furthermore, in Urdu, there are verbs that describe the mental state require experiencer to fulfill the essential arguments in a sentence:

Urdu	English	Theta Roles
Biphrna:	Out of control	Experiencer
Wo	Larka:	Biphr Gya:
That	Boy	Became out of control
English Translation		
That boy became out of control		

"Biphrnaa" serves as another example where the experiencer functions as an essential argument. Additionally, certain intransitive verbs in Urdu undergo causative alternation, resulting in two distinct arguments: one acting as the experiencer and the other as the agent. Take the verb "hasna" in Urdu, which means "to laugh." Its causative counterpart, "hansaana:" shifts the meaning to causing someone to laugh, illustrating how the verb transforms to express induced action.

Urdu	English	Theta Roles
Hansana:	To Cause to laugh	Agent+Experiencer
Ali ny	yasir ko	Hansaya:
Ali	yasir	Made laugh
English Translation		
Ali made Yasir laugh		

THEME AS AN ESSENTIAL ARGUMENT

In Urdu, many verbs require the theme as a core argument. The theme typically represents the entity affected by an action or undergoing a change in state or position. For example, the verb "bahna:" meaning "to flow", illustrates this role.

Urdu	English	Theta Roles
Bahna:	To flow	Theme
Pa"ni:	Bah	Rha hai
Water	Flow	Ing Is
English Translation		
The water is flowing		

Passive constructions include causation, while intransitive verbs do not, as intransitive structures lack a causal element.

For instance:

THE HOUSE SELLS.

THE HOUSE WAS SOLD IN NO TIME

THE HOUSE GOT SOLD IN NO TIME

The first sentence highlights the house's qualities causing it to be "sold," while the second suggests an agent performing the action. The third lacks agency, classifying the Urdu verb "bikna" as intransitive with medio-passive traits.

This is one of the example of the medio-passive intransitive verbs in Urdu language. It can be compared with English.

UBALNA:/ KHAULNA: TO GET BOILED

BHUJHNA: TO BE EXTINGUISHED

Interestingly, verbs that take 'theme' as their core argument often appear in subject position within intransitive constructions, serving as counterparts to their transitive forms. While these verbs center on the 'theme' role, intransitive variants typically assign the theme as their sole essential argument.

Urdu	English	Theta Roles
Bhunna:	To get roasted	Theme
Chicken	Bhun Gya:	
Chicken	Got roasted	
English Translation		
The chicken got roasted		

In this sentence, "the chicken" is the theme, with the agent (the one roasting) missing. The inchoative verb "bhunna" ("to get roasted") contrasts with its transitive form "bhu:nna" ("to roast"), which needs both an agent and a theme. Here's an example.

Urdu	English	Theta Roles
Bhunna:	To get roasted	Theme
Aslam ny	Chicken	bhun diya:
Aslam	Chicken	Got roasted
English Translation		
Aslam got roasted the chicken		

ESSENTIAL ARGUMENT OF PATIENT

In Urdu, certain verbs take the patient as their core argument. These verbs require a single entity that undergoes the action being performed. For example, consider the following:

Urdu	English	Theta Roles
Marna:	To die	Patient
Aftab	Mar gya:	
Aftab	Died	
English Translation		
Aftab died		

In above sentence, 'Aftab, as an NP, is the only argument that supports the verb 'marna:' that is entitled with the theta role of the patient. So it is obvious to see the 'patient' theta roles in both languages, Urdu and English.

In Urdu language, we have many such verbs that are used to present the patient as a theta roles. Here we another example for,

Urdu	English	Theta Roles
Pitna:	To get beaten	Patient
Ayaan	Pit gya:	
Ayaan	Got beaten	
English Translation		
Ayaan got beaten		

The verbs like, Lutna: Khona: girna, also indicate the theta role as a patient in Urdu verb.

VERBS WITH TWO ESSENTIAL ARGUMENTS

In Urdu, some verbs require two essential arguments in their theta grid. These arguments can be categorized into two main types based on the nature of the theta roles: one is Essential Arguments with Agent and Theme

INCHOATIVE TRANSITIVE VERBS

Inchoative verbs indicate a change in the state of an entity. These verbs can be either transitive or intransitive, with key differences between the two. Inchoative intransitive verbs involve only a change in state, while inchoative transitive verbs also involve a change in state related to an agent or theme. Consider this carefully.

Urdu	English	Theta Roles
Khulna:	To open	Theme
Drwaza:	Khul gya:	
Door	Opened	
English Translation		
The door opened		

Urdu	English	Theta Roles
Khulna:	To open	Agent+ Theme
Zyaan ny	Drwaza	Khola:
zyaan	Door	Opened
English Translation		
Zyaan opened the door		

The first sentence focuses on the entity's state, while the second also includes the agent. Some verbs, like "Pighlna:" ("to melt"), require both agent and theme as essential arguments.

Urdu	English	Theta Roles
Pighlna:	To melt	Agent+ Theme
Aqeel ny	Loha:	Piglaya
Aqeel	Loha:	Melt
English Translation		
Aqeel melted the iron		

Here's another perspective on the same statement:

Aqeel ny pighlaya:

Aqeel melted.

Plastic ko pighlaya gya:

Plastic melted was.

Plastic was melted.

In the first sentence, Aqeel acts as the agent, and loha serves as the theme, making both essential for a grammatical structure. Without the theme, the sentence becomes ungrammatical.

In the second sentence, the absence of the agent leads to the same issue. All three examples illustrate the use of agent theta roles.

VERB OF CREATION

In Urdu, some verbs denote the creation of a new entity as a result of an action. These verbs need two core arguments: an agent and a theme.

Here are some examples:

Ka:rhana: to embroider.

Urdu	English	Theta Roles
Ka:rhna:	To embroider	Agent+ Theme
Lrki: ny	Kashi:da	Karha:
Girl	Design	Embroidered
English Translation		
The girl embroidered the design		

Here, "gidl" acts as the agent and "kasha:da" as the theme, demonstrating the same thematic relationship of the verb.

ACCOMPLISHMENT VERBS

Urdu also includes accomplishment verbs, which require both agent and theme as essential arguments. Here's an example:

Kama:na: to earn both agent and theme

Urdu	English	Theta Roles
Kama:na:	To earn	Agent+ Theme
Lrki: ny	Pasy	Kma;ye
Girl	Money	Earned

English Translation

The girl earned money

In this example the girl 'agent' and 'money' as patient.

MOTION VERBS

In Urdu, some transitive motion verbs, like "Ghasi:tna:" meaning "to drag," also take two theta roles: agent and theme.

Urdu	English	Theta Roles
Ghasi:tna:	To drag	Agent+ Theme
Jamil ny	Baksy: ko	Ghsi:ta:
Jamil	Box	Dragde

English Translation

Jamil dragged the box

In the example, "Jamil" acts as the agent and "Baksa" as the theme. Urdu and English assign similar roles to arguments.

Another motion verb in transitive

Urdu	English	Theta Roles
Dhakelna:	To push	Agent+ Theme
Jamil ny	Gari: ko	Dhakela:
Jamil	Car	Pushed

English Translation

Jamil pushed the car

Here are additional examples of motion verbs:

Rokna: to stop

Khi:chna: to pull

VERB OF PERFORMANCE

Performative verbs express the act of performing an action rather than describing a state. Urdu, like English, uses similar verbs. For example, "to declare" is used in:

"The Israel declared war on Palestine."

Here, "declare" takes two arguments—agent and theme—both related to the noun phrase "The Israel." Other similar verbs include "barkha:st krna:" (to discharge or dismiss).

For clarity, consider the example:

Urdu	English	Theta Roles
Barkha:st krna:	To wind up	Agent+ Theme
Jamil ny	Me:ting	Brkha:st ki:
Jamil	Meeting	Winded up
English Translation		
Jamil winded up the meeting		

Here, the first NP "Jamil" acts as the agent, while the second NP "meeting" serves as the theme.

Here's another example of a performative verb in Urdu.

Urdu	English	Theta Roles
Barnaka:rna:	To deny	Agent+ Theme
Saleem ny	Jamil ki	Qa:bliat ko
Saleem	Jamil	Ability
English Translation		
Saleem denied the ability of Jamil		

VERBS OF MENTAL AND PHYSICAL PERCEPTION

In Urdu, Mental and physical action verbs also take two essential arguments; agent and theme simultaneously.

Urdu	English	Theta Roles
dekhna	to see	Agent + Theme
Saleem ny	Ghari:	Dakhi:
Saleem	Ghari:	Saw
English Translation		
Saleem saw watch		

In the sentence, "Saleem" serves as the agent, while "Ghari" takes the role of the theme, both being essential arguments. However, the verb "to see" in English and "dakhna" in Urdu function differently in various contexts. Here's an example where "dakhna" is used in a different context. Consider the following example:

Urdu	English	Theta Roles
dekhna	to see	Theme
Bacha	dekh	sakta
hai		

child see can

English Translation

The child can see

In this sentence, there is only one argument, that is an experiencer. Thus, we have two different contexts for the verb 'dakhna:' in Urdu that can be observed from the upper two examples.

FINDINGS AND CONCLUSION

Thematic structure assigns roles to a predicate's arguments. Non-essential arguments are adjuncts, providing extra information. Urdu verbs are classified by the number of essential theta roles they require: intransitive verbs take one, transitive verbs two, and some require three. Urdu verbs with one essential argument are categorized by the type of argument, such as agent, experiencer, or theme. Examples include intransitive verbs taking only an agent, as well as those with experiencers or themes. Causative alternations are noted in these verbs with a single argument.

Urdu verbs with two essential arguments are categorized by theta roles. Inchoative transitive verbs, showing a change in state, require both an agent and a theme. Examples illustrate the importance of both roles. Some transitive and ditransitive verbs in Urdu need three essential arguments: agent, theme, and goal. Verbs of creation, like "ka:Rhna:" (to embroider) and "bana:na:" (to make), require two arguments: agent and theme. These verbs need an agent and theme as essential arguments, such as "kama:na:" (to earn) and "joRna:" (to connect).

Transitive motion verbs require an agent and theme, like "ghasi:Tna:" (to drag) and "maroRna:" to twist. These verbs perform actions, requiring both agent and theme. Example: "barKha:st karna:" (to discharge, dismiss). These verbs need agent and theme as essential arguments. Examples: "dekhna:" (to see), "ta:Rna:" (to perceive). These verbs take agent and patient as essential roles. Example: "ma:rna:" (to kill). Some emotive verbs require agent and patient for a complete sentence. Examples: "jhiRakna:" (to scold), "Dara:na:" (to frighten).

These verbs require agent, theme, and goal. Example: "bhejna:" (to send). Some verbs need agent, theme, and source. With the verb "lena" ('to take'), a locative NP is unnecessary, as it makes the verb reflexive, indicating the action is directed towards the agent. Some Urdu verbs like "māDhna" ('to impose') require agent, theme, and experiencer. The agent may be omitted (pro-drop), but missing the theme or experiencer makes the sentence incomplete. English equivalents also need three arguments.

Verbs like "čubhona: /gaRa:na:" ('to pierce') need agent, patient, and instrument. Missing either the patient or instrument results in an incomplete sentence. English equivalents follow a similar structure with different argument types. Verbs like "bedaKhal karna" ('to expel') require agent, patient, and source. Passive constructions in both languages drop the agent but retain the patient and source.

Some Urdu verbs, such as "tardi:d karna" ('to deny'), take a CP or IP as an argument along with agent and theme.

Causative verbs in Urdu involve a causer, agent, and theme. The causer motivates the action, and the agent performs it. The current causative analysis of Urdu, which distinguishes between causer (primary agent) and agent (secondary agent), faces issues, especially with synthetic causatives in languages like Urdu.

Uniformity of Theta Assignment Hypothesis (UTAH): UTAH, proposed by Baker, stresses identical thematic and structural relationships at the D-structure level. The distinction between causer and agent in causative constructions challenges this hypothesis. The analysis uses these approaches to show that causative sentences in both English and Urdu have identical structural relationships, supporting UTAH.

CONCLUSION

This study examines Urdu verb structure, focusing on core arguments for grammaticality. It classifies verbs by argument types and theta roles, analyzing causative alternations and inchoative-transitive verbs for deeper syntactic and semantic understanding. It covers verb classes like creation, accomplishment, motion, performative, and perception, using Urdu-English examples. Key roles—agent, theme, patient, goal—are central to sentence formation. Findings highlight Urdu's syntactic flexibility, especially the agent-causer split in causatives. The study suggests a revised analysis under the Uniformity of Theta Assignment Hypothesis, offering a clearer model for synthetic languages.

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