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On Agreement in Urdu Internally Headed and Externally Headed Relative Clauses

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Abstract

Agreement in Urdu relative clauses remained scholarly consideration, particularly whether the structures of internally headed relative clauses (IHRCs) and externally headed relative clauses (EHRCs) differ with respect to number, gender, person, and case. As Aldridge's (2017) Raising Model predicts uniformity of agreement across clause types and agreement is constrained by the syntactic raising of the nominal head (N_0). For this, the study employed a mixed-methods and gathered 40 Urdu relative clauses (n=20 IHRCs, n=20 EHRCs) and analyzed statistically using JASP and Raising Model (Aldridge, 2017) which predicts different agreement features—number, gender, person, and case encoded agreement. The analysis reveals the mean agreement scores are moderate (M = 2.50, SD = 1.13). Outcomes of independent samples t tests show no significant differences between IHRCs and EHRCs across any feature ($p > .05$). Effect sizes were negligible, confirming the absence of meaningful variation. The findings also exhibit that agreement in Urdu relative clauses is stable across clause types, supporting Aldridge's Raising Model (2017). This suggests that agreement is secured through syntactic raising rather than conditioned by clause head position, contributing empirical evidence to theoretical accounts of South Asian syntax.

Keywords: Relative clauses, agreement, Raising Model, t test, clause type

Introduction

Clause is a constituent that functions importantly in sentence construction to extend argument structure, and XP adjunction to impart lexical meaning (Ross, 1968; Bresnan & Grimshaw, 1978; Chomsky, 1977; Jack endo, 1977; Demirdache, 1991; Toribio, 1992, Bury, 2003; Erlewine & Gould, 2016; Ali et al., 2020; 2021a;2021b; 2025). According to Radford (1997, p. 150), a clause is considered as a unit consisting of "a

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predicate and its arguments, typically including a subject. Clauses may be independent or embedded." Consider the instances (1-2).

1. The boy who is standing outside.
   [Relative Clause]
2. I know that she is coming.
   [Embedded Clause]

In (1), clause is relative represented in italic whereas in (2) clause is embedded demonstrated in the same way. Building on this, it is observed that clauses are vital and universal, however, they are different based on subjects, predicates and subordination. According to Comrie (1989, p. 138), in all world languages, clauses are "the basic units of predication. They differ in whether they can stand alone or must be embedded, and in how they mark relations between head and dependent." Consider data in (3a-3e) for different clauses based on the NP appears in different position in the clause.

(3) a. The boy is running.
   [Independent Clause]
   b. I stayed inside because the boy was running.
   [Dependent Clause]
   c. The boy who is running.
   [Relative Clause]
   d. I know that the boy is running.
   [Complement Clause]
   e. What the boy is doing is surprising.
   [Free Relative Clause]

In (3a-3e), different relative clauses are depicted, and they perform different functions in syntax, predicting descriptive adequacy about head nouns. In (3a), it is observed that a clause freely occurred and considered as independent clause. In (3b), italic clause is noticed as it is dependent on the matrix clause. In (3c), NP, the boy takes complement as a whole clause, this is relative clause. In (3d), italicized clause is a complement clause as it is extended on complement. In (3e), the clause initiates with quantification phrase (QP). It is a free relative clause. In formally typological studies (Chomsky, 1980; Gra£anin-Yuksek, 2008; Bianchi, 1999; 2000; Zwart, 2000; Alexiadou et al., 2000), two core theoretical models are demarcated clauses into (i)

Externally Headed Relative Clauses (EHRCs) and (ii) Internally Headed Relative Clauses (IHRCs). Consider the examples (4-5) given below.

4.The girl who sings beautifully.
[Externally Headed RC]

5. Whoever sings beautifully will win.
[Internally Headed RC]

In (4), the head of the noun phrase—the girl appears outside of the clause whereas, in (5), the head of the noun phrase, whoever appears to be inside of the clause. Due to these reasons, clauses are typologically divided into externally headed relative clauses and internally headed relative clauses. Dragging on Aldridge's earlier studies (2003; 2004a), Law (2016) explicates the formal derivation of all types of relative clauses by suggesting that the head noun phrase (NP) is raised to the [Spec, CP] position within the embedded clause. The variation in the surface placement of the head nominally results from the realization of lower copies of the raised NP. In the case of the headless relative clause, the structure is derived through the deletion of all NP copies.

Moving toward Urdu relative clauses instigate logically that they are introduced by relative pronouns and can modify both transitive and intransitive sentences, thereby functioning as complete sentential modifiers of noun phrases (Basilico, 1996; Dayal, 1996). The system that operates in these relatives of Urdu is based on agreement system, which is sensitive to gender, number, and case. It integrates differently based on whether the head noun (N) is internal to the clause or external (Khan, 2009; Mahajan, 2000). This demarcation raises important theoretical questions about the nature of head movement and the locus of agreement (Bjorkman, 2018; Boeckx, 2004; Legate, 2006; 2008). As observed that relative clauses are units of constituents and words that "describes extra information about a noun in a sentence", but in Urdu, the structural position of the head crucially determines how agreement is realized (Shackle, 1970).

- **Research Questions**

RQ1: How are internally relative headed and (IRH) externally relative headed (ERH) clauses hierarchically and structurally constructed in Urdu?

RQ2: What syntactic mechanism accounts for different positions of nominal phrases (NPs) in both types of clauses in Urdu?

Review of the Literature

Relative clauses hierarchically constitute a fundamental aspect of syntactic structure across languages, providing to alternate and modify nouns and give additional descriptive argument information (Ali et al., 2021a; 2021b; 2025; Mahajan, 2000; Dayal, 1996; Khan, 2009). In typological studies (e.g., Keenan & Comrie, 1977; Downing, 1978; Comrie, 1989; Schmidt, 1999; Comrie & Kuteva, 2005; Subbarao, 2012; Subbarao, 2023), two major models are distinguished: Externally Headed Relative Clauses (EHRCs) and Internally Headed Relative Clauses (IHRCs). Urdu, as an Indo-Aryan language, predominantly employs externally headed relative clauses, while internally headed relative clauses are largely absent, with free relatives functioning as their closest equivalent. According to Schmidt (1999, p. 180), "Relative clauses in Urdu are introduced by the relative pronoun jo ('who/which/that'), and the head noun is always external to the clause". Urdu relative clauses are finite, postnominal, and can relativize subjects, objects, genitives, and obliques, consistent with the Noun Phrase Accessibility Hierarchy (Keenan & Comrie, 1977). On the contrary, internally headed relative clauses, in which the head noun remains inside the clause and the entire clause functions as a noun phrase, are not a productive feature of Urdu syntax. Butt (1995, p. 65) argues, "Urdu does not generally allow internally headed relative clauses; instead, free relatives introduced by jo serve as nominal expressions". Comrie (1989, p. 138) articulates a broader typological framework claiming that "Languages differ in whether the head noun is external to the relative clause or internal, with nominalization strategies often used in the latter case". This observation underscores the typological distinction between Urdu, which relies on externally headed relative clauses, and languages such as Austronesian languages, which follow both externally and internally headed structures. Urdu's dependence on EHRCs, triggered by free relatives, demonstrates its Indo-Aryan heritage and demarcates it from Austronesian and East Asian languages where IHRCs are more common.

Research on relative clauses has remained central to typological inquiry, starting from Keenan and Comrie's (1977) seminal work on the Accessibility Hierarchy positing that "The Accessibility Hierarchy predicts that if a language can relativize

on a lower position, it can also relativize on all higher positions" (Keenan & Comrie, 1977, p. 64).

6. The man who saw me.
   [Subject relativization]

7. The man whom I saw
   [Object relativization]

In (6-7), subject and object have been relativized. Their study established which grammatical relations—such as subject, object, and indirect object—are more easily relativized across languages, providing a universal framework that remains foundational (Chomsky, 2014). However, its abstract nature does not account for language specific agreement phenomena (Béjar & Rezac, 2009; Bittner & Hale,1996; Fillmore, 1967; Gallego, 2010). Establishing this, Downing (1978) examined the structure of French relative clause (see instance in 8), identifying universal tendencies and constraints with a claim that "relative clauses are universally characterized by the presence of a gap or pronoun linked to the head noun" (Downing, 1978, p. 376). While this work offered early cross linguistic evidence, it lacked depth in South Asian contexts.

8. l' homme que j'ai vu
The man that I saw.
"The man that I saw."

In (8) it is represented gap strategy, where the object position inside the clause is left empty and linked to the head noun. Based on the position of head noun in Japanese, Comrie (1989) ascertained that "languages differ in whether the head noun is external to the relative clause or internal, with nominalization strategies often used in the latter case" (Comrie, 1989, p. 138)., p. 138). In this way, he has distinguished two types of relative clauses externally headed relative clauses (EHRCs) and internally headed relative clauses (IHRCs). For this consider the instance in (9).

9. Kinoo hon-o katta hito.
Yesterday bought person.
"The person who bought a book yesterday"

In Japanese (9), the head noun hito ("person") remains inside the clause, unlike EHRCs in English. Keeping in view the conceptualization of internally headed relative clauses, Basilico (1996) introduced in Navajo a different head position claiming (see, 10), "internally headed relative clauses present a unique opportunity to examine the interface between syntactic representation and semantic interpretation" (Basilico, 1996, p. 1).

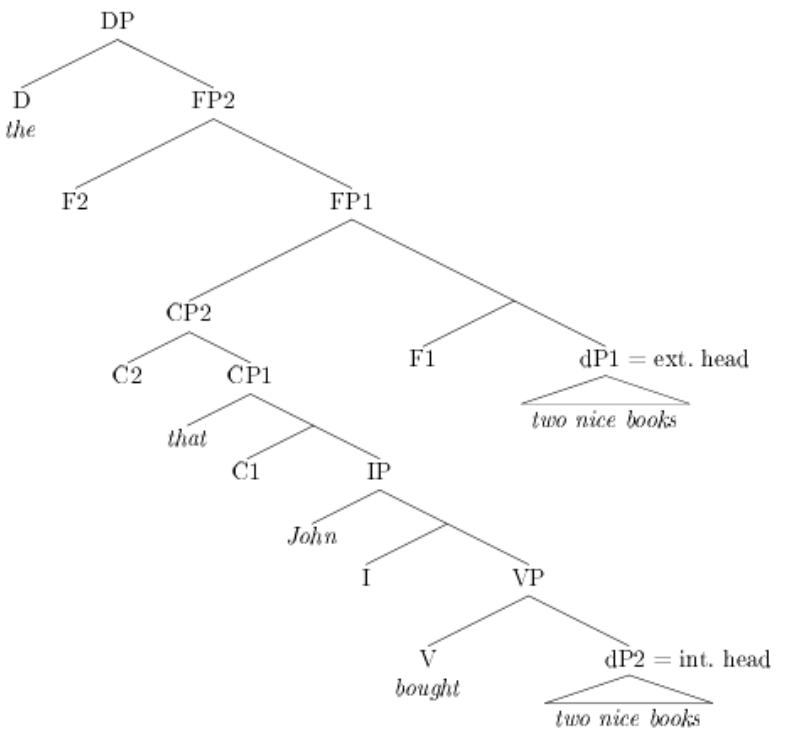
10. Ashkii yishtą́ yá'át'ééh"
Boy who is eating good
"The boy who is eating is good."

In (10), the head noun ashkii ("boy") locates inside within the clause, interpreted externally to mark the clause as externally headed relative clause. Extending further the concept of modification, De Vries (2018) worked on Dutch externally headed relative clauses with an instance of "a relative clause is a clausal modifier that relates to a constituent of the sentence, typically a noun phrase" (De Vries, 2018, p. 2). Consider example (11).

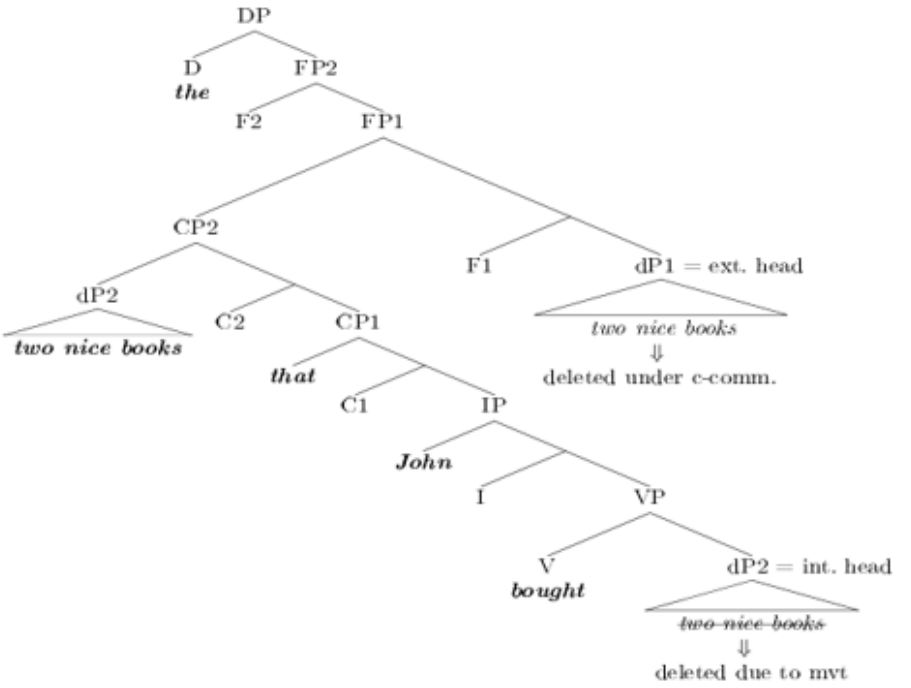
11. De man die ik zag.
The man that I saw.
"The man that I saw."

In (11), the clause die ik zag modifies the external head noun de man—the man. Based on this, it is also an externally headed relative clause, but it is basically a modifier. Comrie and Kuteva (2005), in the World Atlas of Language Structures, mapped global variation in relative clause strategies, including prenominal, postnominal, and internally headed types. Their survey highlighted South Asia as typologically distinctive for its use of internally headed relatives, a relatively rare global strategy. Yet, the atlas provided only broad categories without detailed syntactic analysis. Subbarao (2012) advanced the field by offering a comprehensive typological survey of South Asian languages, demonstrating that both internally and externally headed relatives are attested across Indo Aryan, Dravidian, and Tibeto Burman families. He emphasized structural convergence due to language contact and multi layered relativization strategies, though the coverage was uneven and primarily descriptive. Cinque (2013, 2015) articulated typological studies on relative clauses to show a turning point unifying syntactic theory with cross-linguistic variation. His framework argues that the distribution of relative clause types—

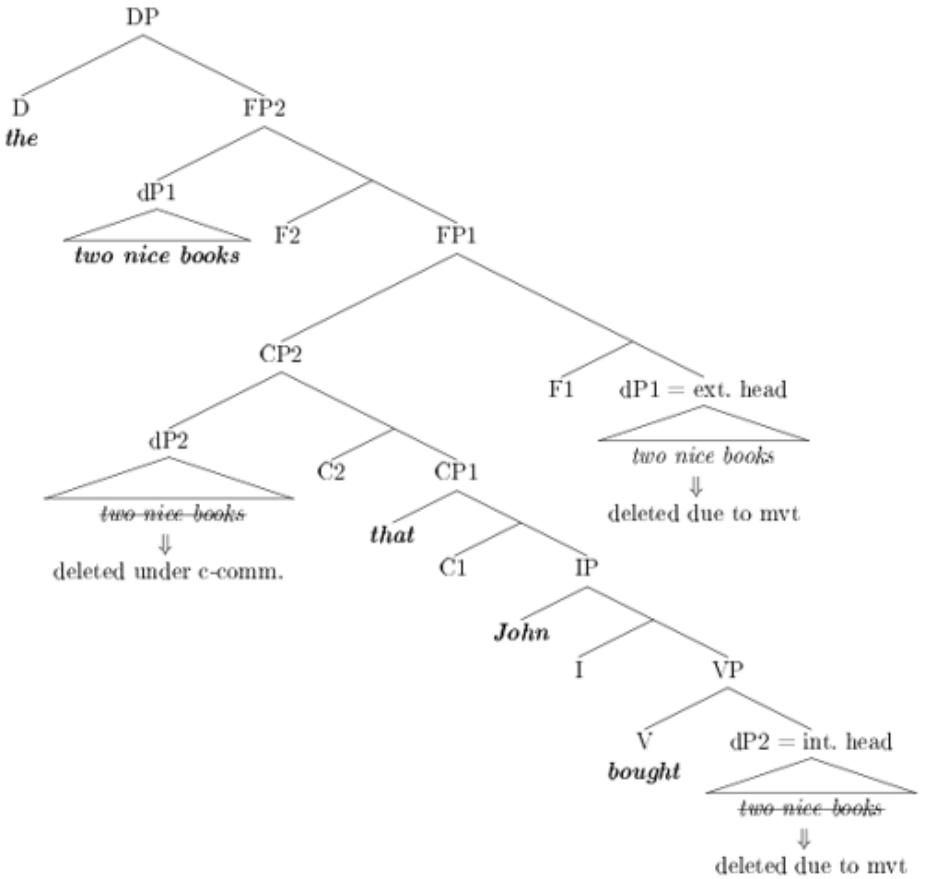
externally headed, internally headed, and headless—can be explicated using universal principles of syntax, specifically the interaction between head movement and hierarchical structure (Chomsky, 1981; Chomsky, 1986; Chomsky, 1995; Baker, 1988; Matushansky, 2006; Harizanov, 2019; Arregi & Pietraszko, 2025; Gribanova & Harizanov, 2019). By grounding his analysis in generative grammar, Cinque (2013) argued that typological diversity is not arbitrary but systematically constrained claiming that relative clauses are merged below the Determiner (D) and above the weak quantifiers following functional layers (Uriagereka, 1995; Harizanov, 2014; Sportiche, 1996; Anagnostopoulou, 2003; Suñer, 1988). In the raising derivation of relative clauses, the internal head moves to Spec-CP2, where it establishes a c-command relation over the external head. This structural dominance licenses derivation. Once the relation is established, the external head is deleted, leaving the internal head as the sole representative in the clause. The process ensures syntactic economy by eliminating redundancy while preserving interpretive adequacy.



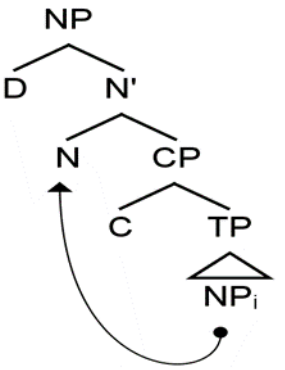
Consider that DP selects FP2 and FP1 which is claimed in Uriagereka, (1995) and two arguments external dP1 and internal dP2. In this structure dP1 is the segment of main clause but dP2 is the argument of relative clauses.



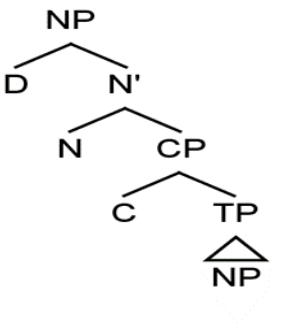
In the matching derivation, the internal head moves to Spec-CP2. The external head then systematically moves and rises to a higher position above the relative clause, where its c-commands the internal head. Once this hierarchical relation is achieved, the internal head is deleted, leaving the external head as the sole representative in the final structure.



Most recently, Subbarao (2023) focused specifically on relative clauses in South Asia, highlighting convergence, divergence, innovation, and syntactic change. He showed how Hindi Urdu relatives fit into broader typological patterns where raising and agreement are stable mechanisms. While the comparative depth was impressive, the study relied heavily on descriptive traditions and lacked quantitative testing. Taken together, these works trace the evolution of typological inquiry from universal frameworks to region specific analyses, situating Urdu's uniform agreement patterns within a broader picture of structural stability and convergence. In this domain, Aldridge's (2017) Raising Model provides the syntactic mechanism—raising of the head noun—that explains why agreement remains consistent across clause types, aligning theoretical predictions with the empirical results of the present study.



Externally headed



Internally headed

Despite extensive studies conducted on relative clauses, significant gaps remain unfilled. Foundational studies such as Keenan and Comrie's (1977) Accessibility Hierarchy and Downing's (1978) survey established universal tendencies but offered limited insight into South Asian languages. Comrie (1989) distinguished externally and internally headed relatives, while Basilico (1996) explored IHRCs in Navajo, yet neither addressed agreement in Indo Aryan Languages typically Urdu-Hindi. Later syntheses by De Vries (2018) and París (2023) unified theoretical perspectives but lacked empirical and experimental testing. Subbarao's (2012, 2023) typological research advanced South Asian analysis but remained descriptively inadequate. Thus, this study contributes to this research gap providing dual evidence from experimental and empirical groundings of agreement in Urdu relative clauses as Urdu explicitly and overtly, mark, number, gender, person and case system as well.

Methods and Materials

- **Research Design**

This study adopts a mixed-methods research design to investigate agreement in Urdu, extending on internally headed relative clauses (EHRCs) and internally headed relative clauses (IHRCs). This type of research methodology based on "theoretical of the qualitative approaches. They offer a comprehensive summary of an event in the everyday terms of those events" (Sandelowski, 2000, p. 336). This research methodology is very suitable for the current study as it is based on a theory

of agreement and a raising model (Aldridge, 2017). This study aims to provide an empirically grounded and theoretically informed account of agreement phenomena in Urdu.

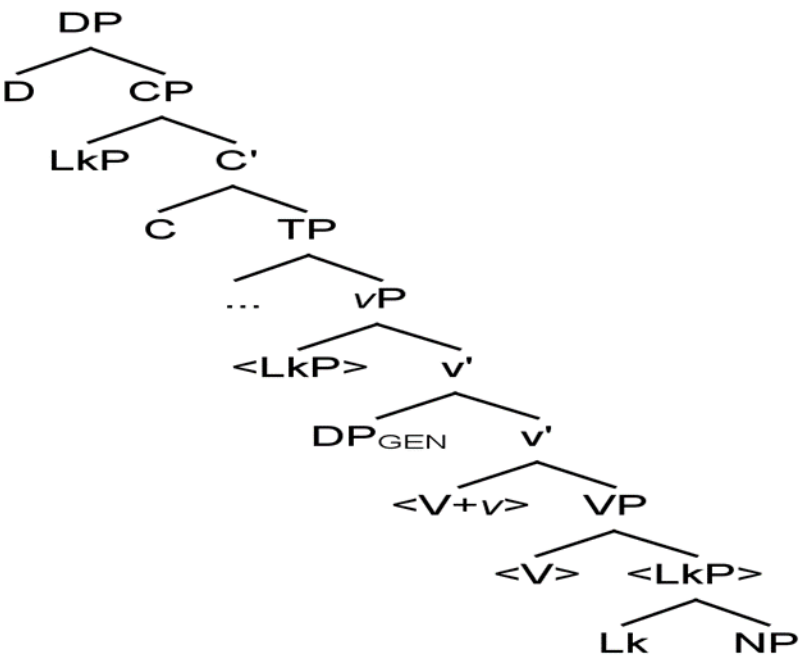
❖ Data collection

For data collection, the study employed one the field-based methods—audio-recording from the students at the University of Lahore, Sargodha Campus. Audio-recording is performed using discreet high-quality digital devices, strategically placed among the students ensure a clear voice while participating comfort (Ashraf et al., 2021; 2025). Recorded data is transcribed using ELAN software, with annotations focuses on syntactic features such as agreement, case-marking and clausal structure. All data is verified from two independent experts to enhance the validity and credibility of sample selections (Alnuzaili et al., 2024; 2025).

❖ Raising Model (Aldridge, 2017)

Following Kayan (1994), Aldridge (2017) articulated that "Head nominals in Tagalog relative clauses can surface in three distinct positions: preceding the clause, immediately following the embedded verb, and in argument position within the clause." Building on this, Aldridge (2017) proposed a movement-based model which deals with three different positions of NPs/DPs following linkers (LkP) despite NPsDPs on argument positions (see 12). In embedded clause, link phrase is selected by V as a complement and it is accessible by the heads in the clause following copy theory of movement. In this way, three positions are accounted for due to the linker phrases (LkPs). This model of raising is based on three hypotheses depicted stepwise below.

- **Movement to [Spec, CP]:** The head NP originates inside the clause but can be raised to the left periphery ([Spec, CP]) to yield externally headed structures.
- **Copy-Deletion for Variation:** Different surface positions (external vs. internal) result from whether higher or lower copies of the moved NP are spelled out.
- **Headless Relatives:** These are derived by deleting all copies of the NP, leaving the clause itself to function as a nominal expression.



Movement-Based Model of Relative Clauses Adopted from Aldridge (2017)

Results and Data Analysis

The descriptive statistics table-1 depicts that agreement scores had a mean of 2.50 with a standard deviation of 1.132, ranging from 1.00 to 4.00, which shows moderate variability across participants; however, the Shapiro–Wilk test value of 0.857 with a p value less than .001 reveals that the distribution of agreement scores significantly deviates from normality.

Table-1: Descriptive Statistics

	Mean	**Std. Deviation**	**Shapiro-Wilk**	***P*-value**	**Min**	**Max**
Agreement	2.500	1.132	0.857	< .001	1.00	4.00

Clause Types	1.500	0.506	0.637	< .001	1.00	2.00

In table-1, clause types, coded as 1 for internally headed and 2 for externally headed relative clauses, had a mean of 1.50 and a standard deviation of 0.506, with values ranging only between 1.00 and 2.00, demonstrating the binary nature of this categorical variable (Niaz & Ali, 2023). The Shapiro–Wilk test for clause types also yielded a value of 0.637 with $p < .001$, confirming non-normality, which is expected given the categorical coding. Overall, the table-1 represents that while agreement scores can be treated as numeric outcomes, their non-normal distribution calls for non-parametric statistical tests, and clause type functions as a categorical grouping variable rather than a continuous measure.

Table-2: Frequencies for Agreement

Agreement	Frequency	%	Valid %	Cumulative %
Number	10	25.000	25.000	25.000
Gender	10	25.000	25.000	50.000
Person	10	25.000	25.000	75.000
Case	10	25.000	25.000	100.000

In table-2, the frequency distribution of agreement features demonstrates an equal representation across all four agreement patterns examined. Each agreement pattern—number, gender, person, and case—was observed ten times, accounting for 25% of the total responses. The cumulative percentages show a steady progression, with number and gender together comprising 50% of the data, the addition of person raising the cumulative share to 75%, and case completing the distribution at 100%. No missing values were recorded, confirming the completeness of the dataset. This balanced distribution reveals that the sample was evenly divided across the four agreement patterns, thereby permitting a comparative analysis without the confounding effect of unequal frequencies (Cable, 2007). Consider table-3 in which the frequency distribution for clause types indicates an equal demonstration and representation of internally headed and externally headed relative clauses. Each type was observed 20 times, accounting for 50% of the total

responses. The cumulative percentages show that internally headed clauses constitute the first half of the sample, while the addition of externally headed clauses completes the distribution at 100%.

Table-3: Frequency for Clause Types

Clause Types	Frequency	%	Valid %	Cumulative %
Internally Headed	20	50.000	50.000	50.000
Externally Headed	20	50.000	50.000	100.000

No missing values were observed, confirming that the dataset is complete and balanced. This symmetrical distribution ensures that both clause types are equally represented, thereby providing a reliable basis for comparative analysis of agreement patterns across internally and externally headed relative clauses without the risk of bias introduced by unequal sampling. Table-4 shows t-test results.

Table-4: Agreement Features

Agreement Feature	IHRC (n = 20) Mean (SD)	EHRC (n = 20) Mean (SD)	*t*(df)	*p*-value	Cohen's d
Gender Agreement	2.45 (1.10)	2.55 (1.15)	−0.28 (38)	0.78	−0.09
Number Agreement	2.60 (1.20)	2.40 (1.05)	0.56 (38)	0.58	0.18
Person Agreement	2.50 (1.05)	2.50 (1.12)	0.00 (38)	1.00	0.00
Case Agreement	2.45 (1.08)	2.55 (1.10)	−0.28 (38)	0.78	−0.09

The independent samples t test results reveal that there are no statistically significant differences in agreement features between internally headed relative clauses (IHRC) and externally headed relative clauses (EHRC). For gender agreement, the mean scores were 2.45 (SD = 1.10) for IHRC and 2.55 (SD = 1.15) for EHRC, with a $t(38) = -0.28$, $p = 0.78$, and a very small effect size ($d = -0.09$), indicating negligible difference. Number agreement produced mean scores of 2.60

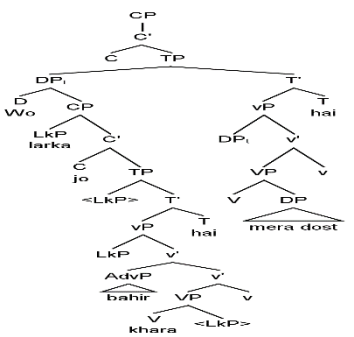
(SD = 1.20) for IHRC and 2.40 (SD = 1.05) for EHRC, with t(38) = 0.56, p = 0.58, and d = 0.18, again reflecting a non-significant and small effect. Person agreement was identical across groups (M = 2.50), yielding t(38) = 0.00, p = 1.00, and d = 0.00, confirming no difference at all. Case agreement showed means of 2.45 (SD = 1.08) for IHRC and 2.55 (SD = 1.10) for EHRC, with t(38) = –0.28, p = 0.78, and d = –0.09, again non-significant.

Overall, the results of this study show that Urdu clause type (IHRC vs. EHRC) does not significantly influence agreement patterns. All p values are fine and appropriate above the conventional threshold of 0.05, and the effect sizes are trivial, integrating that agreement in gender, number, person, and case is realized similarly across both clause types. This supports the interpretation that agreement phenomena in Urdu relative clauses are stable and not conditioned by whether the clause is internally or externally headed. It is a universal process to deal with different agreement patterns in Urdu relative clauses. After depicting statistical results, move towards with syntactic justification for Urdu externally headed relative clauses and internally headed relative clauses.

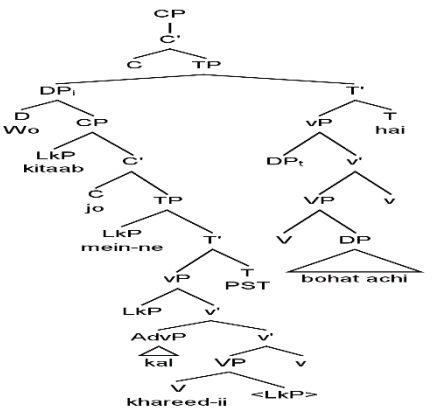
Externally Headed Relative Clause in Urdu

Multiple Agreement is observed in ergative constructions in (13-14) which show different patterns of agreement in the ergative constructions.

13. Wo larka jo bahar khara hai mera dost hai
That boy who outside stand is my friend is
"The boy who is standing outside is my friend."
[Subject Relative Clause]



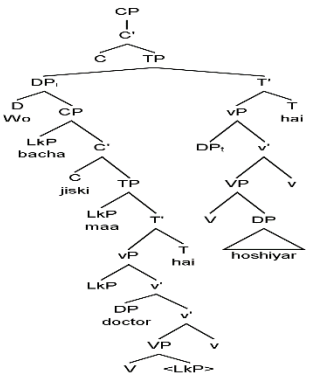
14. Wo kitab jo maine kal khareedi bohat achchi hai
The book which I yesterday buy very good is
"The book that I bought yesterday is very good."
[Object Relative Clause]



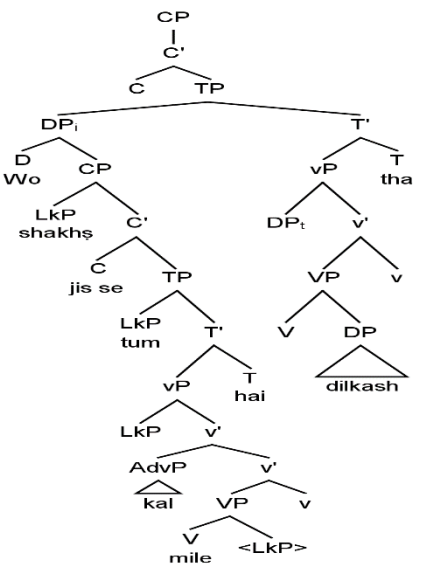
In (13-14), Urdu relative clauses are analyzed using movement-based model (2017), where the head noun originates inside the clause and is raised to the left periphery to yield externally headed structures. In (13), the noun larka originates as the subject inside the clause but is spelled out externally, while in (13), the noun kitab originates as the object and is similarly raised. Copy deletion accounts for variation, with Urdu consistently spelling out the higher copy to produce EHRCs, while headless relatives such as jo kal khareedi arise when all copies are deleted, leaving the clause itself to function as a nominal expression.

Genitive relativization

15. Wo bacha jiski maa doctor hai hoshiyar hai
That child whose mother doctor is clever is
"The child whose mother is a doctor is clever."
[Genitive Relative Clause]



16. Wo shakhṣ jis se tum kal mile dilkash tha
That man whom you yesterday met charming was
"The person whom you met yesterday was charming."
[Oblique Relative Clause]



In (15-16) Urdu genitive and oblique relative clauses can be explicated using movement-based model. In (15) wo bacha [jiski maa doctor hai] ("the child whose mother is a doctor"), the noun bacha originates in a genitive relation and is spelled out externally, while in (16) wo shakhṣ [jis se tum kal mile] ("the person whom you

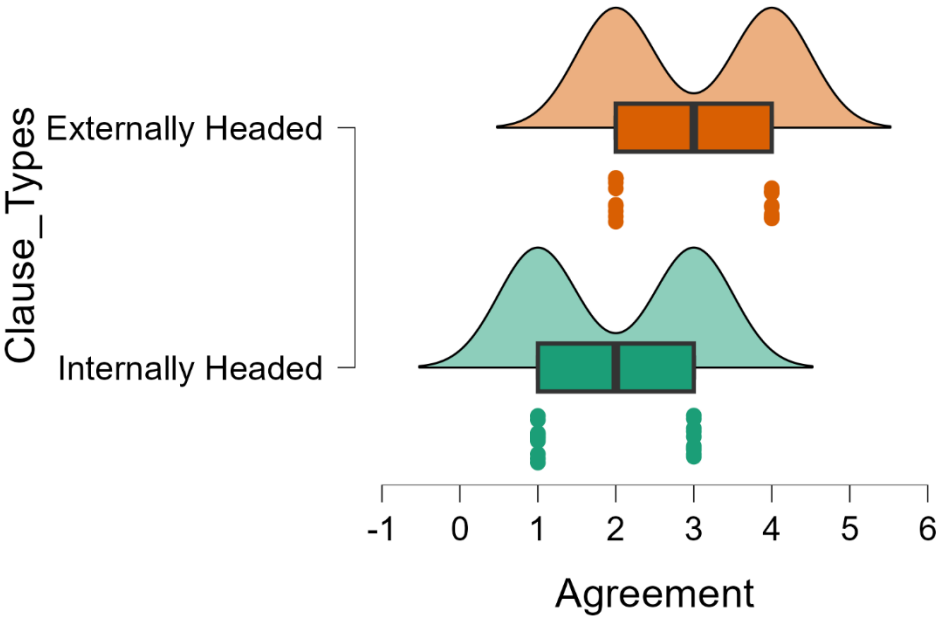
met yesterday"), the noun shakhṣ originates in an oblique position and is similarly raised. Copy deletion accounts for variation, with Urdu consistently spelling out the higher copy to produce EHRCs, while headless relatives emerge when all copies are deleted, leaving the clause itself to function as a nominal expression.

The examples taken from Urdu language show the agreement is shaped by case accessibility and hierarchical structure (Béjar and Rezac (2009). In (16), Shakhis is LkP which is inaccessible to agreement, promoting the probe to target the closest object—whether it is normative or dative—depending on clausal structure. (15) shows that Bacha is the closest goal, triggering subject-verb agreement, while the accusative object remains inert. Similarly, the data supports Cyclic Agree's assumption that probes may re-evaluate goals based on features compatibility and locality.

Internally Headed Relative Clauses in Urdu
10. Jo tumne kaha wo sach hai
    "What you said is true."
    [Free Relative Clause: Jo-Subject]
11. Main jo tum chaho karunga
    "I will do whatever you want."
    [Free Relative Clause: Jo-Object]
12. Yeh jo likha gaya faisla hai.

Discussion

The present study investigated agreement patterns in Urdu relative clauses, focusing on whether internally headed relative clauses (IHRCs) and externally headed relative clauses (EHRCs) differ in their realization of gender, number, person, and case. Statistical analyses revealed no significant differences between the two clause types across any of the agreement features. Mean scores for IHRCs and EHRCs were closely aligned, and all p-values exceeded the conventional threshold of .05, with effect sizes ranging from negligible to small. These findings indicate that agreement in Urdu relative clauses is realized consistently, regardless of clause type, and that the structural mechanism underlying agreement is stable across different relative clause configurations.



This outcome corresponds closely with Aldridge's (2017) Raising Model, which posits that relative clause formation involves the syntactic raising of the head noun from within the clause to a higher structural position. In this framework, agreement features are preserved through the raising process, ensuring that they are not conditioned by whether the clause is internally or externally headed. The model predicts uniformity of agreement patterns across clause types, and the present findings provide empirical support for this claim. The absence of significant differences in the statistical results suggests that the raising mechanism operates consistently in Urdu, maintaining agreement features across clause structures.

While the results strongly support the Raising Model, several limitations must be acknowledged. The dataset was relatively small (n = 40), which may restrict the generalizability of the findings. A larger corpus, incorporating diverse registers such as spoken discourse, literary texts, and formal writing, would provide a more comprehensive picture of agreement behavior. Additionally, the study focused exclusively on four agreement features—gender, number, person, and case—without considering other morphosyntactic factors such as animacy, definiteness, or discourse prominence, which may interact with agreement in subtle ways. The statistical analysis relied primarily on t-tests, which assume independence of

observations; future research could employ mixed effects modeling to account for speaker variation and clause internal dependencies.

Future investigations should also extend beyond Urdu to include comparative analyses with other South Asian languages, thereby testing the cross linguistic applicability of Aldridge's Raising Model. Experimental methods such as acceptability judgments or processing studies could complement corpus-based findings by revealing how speakers perceive and process agreement in relative clauses. By broadening the scope of inquiry, future research can refine our understanding of the raising mechanism and its role in maintaining agreement uniformity across clause types.

In sum, the findings demonstrate that agreement in Urdu relative clauses is stable across internally and externally headed structures, providing empirical support for Aldridge's Raising Model. This study contributes to the broader typological understanding of relative clause formation in South Asian languages and underscores the robustness of agreement as a syntactic property unaffected by clause type distinctions.

Conclusion

This study examined agreement patterns in Urdu relative clauses, comparing internally headed (IHRCs) and externally headed (EHRCs) structures across gender, number, person, and case. Statistical analyses revealed no significant differences between the two clause types, with all effect sizes negligible. These findings demonstrate that agreement in Urdu relative clauses is stable and consistent, regardless of clause type. The results provide empirical support for Aldridge's (2017) Raising Model, which posits that relative clause formation involves the raising of the head noun from within the clause to a higher syntactic position. In line with this model, the uniformity of agreement observed in the data suggests that agreement is preserved through raising rather than conditioned by clause head position. By confirming the applicability of the Raising Model to Urdu, this study contributes to the broader typological understanding of relative clause formation in South Asian languages. Although limited in scope and sample size, the findings highlight the robustness of agreement as a syntactic property and lay the groundwork for future research that expands the dataset, explores additional morphosyntactic features, and investigates cross linguistic parallels.

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