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IN
LINGUISTICS**

Volume: 50

2024

(A Peer Reviewed Annual Research Journal)

(In Memory of Padma Shri Professor

Late B. Ramakrishna Reddy)

Editor

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University College of Arts and Social Sciences

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(ICSSR), New Delhi, provided funding support for the
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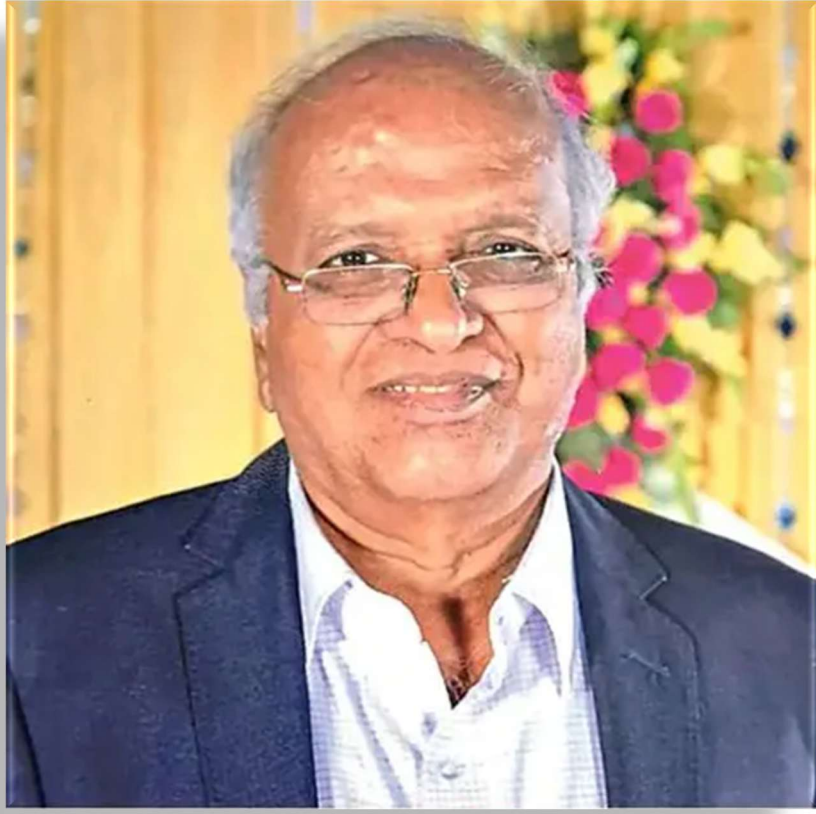
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Padma Shri Professor B. Ramakrishna Reddy

Osmania Papers in Linguistics
Volume: 50 **2024**
(A Peer Reviewed Annual Research Journal)
(In Memory of Padma Shri Professor
B. Ramakrishna Reddy)
(Published in 2025)

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Osmania Papers in Linguistics (OPiL) is an annual peer reviewed research journal devoted to the publication of articles in the field of general and applied linguistics. It also includes book reviews and review articles. The journal publishes work primarily by the staff, students, and visiting faculty of the Department of Linguistics, Osmania University. However, articles may occasionally be invited from scholars outside Osmania on special topics. All contributions must be in English. Views expressed in OPiL are only those of the authors. Articles for publication, review copies, and communications relating to editorial matters should be sent to The Editor, OPiL, Department of Linguistics, Osmania University, Hyderabad 500007, India. Matters related to orders, payment, change in address or exchange may be sent to The Head, Department of Linguistics, Osmania University, and Hyderabad 500007. The price for OPiL (one Volume) is Rs 500/- or US \$50 (excluding postage).

Osmania Papers in Linguistics
Volume: 50 **2024**

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Editorial

It is with great pride that we present *Osmania Papers in Linguistics (OPiL)*, Volume 50, a landmark edition that marks not only the continuity of five decades of sustained academic publication but also a moment of remembrance, scholarly reflection, and celebration. This volume is dedicated to the scholarly legacy of **Padma Shri Late Dr. B. Ramakrishna Reddy**, a pioneering linguist, educator, and tireless advocate for the documentation, preservation, and revitalization of South Indian tribal languages. His decades of fieldwork among the Savara community, his contributions to tribal cultural interpretation, and his leadership in language documentation stand today as exemplary models of scholarship rooted in respect for linguistic diversity and the cultural dignity of indigenous communities.

Dr. Reddy's work demonstrated that language is not merely a system of grammar and phonology, but a living archive of knowledge, memory, environment, and identity. His scholarship foregrounded the importance of working *with* communities, rather than merely *on* them, and emphasized that linguistic research carries ethical responsibility. This commitment to linguistic sustainability, cultural empathy, and academic rigor continues to inspire contemporary research across Indian linguistics. It is therefore fitting that this Golden Jubilee volume honours his legacy by showcasing research that reflects both conceptual depth and cultural sensitivity.

This commemorative volume has been made possible through the generous support of the Indian Council of Social Science Research (ICSSR). We are deeply grateful for this support, which has enabled the inclusion of fifteen research papers that together represent a wide spectrum of linguistic inquiry. Though diverse in methodology and focus, these papers share a central

understanding: *language is inseparable from human experience*. The contributors approach language not only as structure, but also as cognition, culture, identity, pedagogy, communication, and social meaning.

The volume opens with important contributions in theoretical and descriptive linguistics. The study on *The Future Tense and the Semantics of –ib in Assamese* examines the morpheme –ib from a cognitive linguistic perspective, arguing that it functions not merely as a marker of futurity but as part of the modal system, grounding situations in projected and potential realities. The paper on *Cumulative Conjunctions in the Dravidian Languages: Diachronic and Areal Aspects* provides a comparative and historical analysis of coordination strategies, situating Dravidian structures within the broader typological context of South Asia and highlighting the interaction between language contact and structural evolution.

Language documentation and ethnolinguistic inquiry form a significant thematic strand of this volume. The *Ethnolinguistic Study of Uchai* documents the linguistic ecology, phonology, and socio-cultural life of this endangered Tibeto-Burman language of Tripura, underlining the urgency of preservation efforts. The paper on *iqi:sing and the Story of dzambura* explores the relationship between myth, ritual art, and linguistic identity in Savara culture, demonstrating how visual traditions function as repositories of collective memory. The study on *Bonda (Remo) Women as Agents of Environmental Conservation and Stewardship* highlights the interconnectedness of language, ecological knowledge, gender roles, and sustainability in the Bonda Hills of Odisha. Similarly, the study on *Lexical Variation in Kui Language of Odisha* documents regional variation and patterns of language contact, revealing how communities negotiate continuity and change through everyday linguistic practices.

The dynamics of bilingualism, second language acquisition, and cross-linguistic influence are examined in several contributions. The study on *Phonological Errors in Hindi* investigates the persistent influence of Malayalam on Hindi speech among long-settled speakers in Delhi, offering insights into phonological adaptation and transfer. The paper on *Structural Differences in Polarity Items* analyses asymmetries between Telugu and English negative polarity systems and demonstrates how these structural differences generate learning challenges. The comparative study of *Reduplication of Telugu and Hindi* examines morphological processes across two language families, highlighting both universal patterns and language-specific variations.

Cognitive and psycholinguistic dimensions are addressed in the paper *Speech Errors as Evidence for Language Processing*, which analyses error patterns as systematic and rule-governed phenomena, linking descriptive linguistics with insights from cognitive science and references to ancient Indian knowledge traditions. The study on *Exploring the Impact of Verbal Deficit on Academic Performance* investigates how variations in verbal ability influence educational outcomes, especially in technical and non-literary subjects, thereby connecting linguistic competence with issues of social equity and pedagogy.

Prosody, pragmatics, and expressive meaning receive focused attention in *Construal of Attitudinal Meanings by Mizo Tones*, which employs a systemic functional framework and acoustic analysis to show how tonal variation encodes interpersonal attitudes in polar interrogatives. Expanding the typological horizon, *Meaning and Function of Interjections in Baule* examines the semantic and communicative roles of interjections in a Niger-Congo language, emphasizing their tonal and pragmatic richness.

The volume also engages contemporary educational discourse. The paper *AI Integration in Indian Education: Aligning with NEP 2020* critically evaluates the role of artificial intelligence in transforming multilingual education in India, discussing both opportunities and infrastructural challenges. Complementing this perspective, *Understanding the Humanistic Approaches in the Changing Needs of Language Teaching and Learning* underscores the continuing relevance of learner-centred pedagogy, emotional engagement, and inclusive educational practices in an era increasingly shaped by technological innovation.

Together, these fifteen research papers reflect the breadth and depth of contemporary linguistic scholarship. They demonstrate that linguistic inquiry today is theoretically informed, empirically grounded, socially responsive, and ethically aware. Whether addressing modality, coordination, endangered languages, lexical variation, ecological knowledge, bilingual acquisition, tonal meaning, interjections, cognitive processing, or educational reform, this volume affirms the central role of language in shaping human experience.

We express our sincere gratitude to all contributors and reviewers for their scholarly dedication, and to the editorial team for their continued commitment to academic excellence. As we present the 50th volume of OPiL, we reaffirm our dedication to advancing rigorous, inclusive, and socially meaningful linguistic research.

We respectfully dedicate this volume to **Padma Shri Late Dr. B. Ramakrishna Reddy**, whose life and work continue to guide and inspire future generations.

K. Susheel Kumar
Editor, OPiL-Volume 50

**The Linguistic Legacy of Late. Professor B. Ramakrishna Reddy:
Champion of South Indian Tribal Languages**



DOB: 12 August 1942 DOD: 23 April 2025

(Professor B. Ramakrishna Reddy receiving the Padma Shri award from the Honourable President of India, Smt. Draupadi Murmu.)

Image taken from <https://x.com/rashtrapatibhvn/status/1638553185462763522>).

Professor B. Ramakrishna Reddy was a distinguished linguist, academician, and researcher from Telangana, India, renowned for his invaluable contributions to the preservation of endangered South Indian tribal languages and his extensive work in the fields of linguistics, Telugu syntax, and Dravidian studies. In recognition of his extraordinary service to Indian linguistics and tribal language preservation, he was conferred with the prestigious Padma Shri Award in 2023, making him one of the three recipients from Telangana that year. His work in documenting and safeguarding endangered tribal languages such as Kuvi, Manda, and Kui has been pivotal in ensuring the survival of these languages and their associated cultures.

Academic Background and Early Career

Professor Reddy's academic journey began with a B.A. degree in 1964 from Sri Venkateswara University (S.V. University), Tirupati, followed by an M.A. in Hindi Language and Literature in 1966 from the same institution, where he excelled academically. He pursued a Certificate in Linguistics from Annamalai University in 1967, which ignited his passion for linguistics and language preservation. Driven by a keen interest in the study of languages, he went on to complete an M.A. in Linguistics in 1970 from the University of Poona (now Savitribai Phule Pune University), where he laid a strong foundation for his future research.

In 1976, Professor Reddy obtained his Ph.D. in Linguistics from the University of Edinburgh, United Kingdom, under a Commonwealth Scholarship. His doctoral dissertation, titled "*Localist Studies in Telugu Syntax*," was a pioneering work that explored the syntactic structure of Telugu, a major Dravidian language. His research delved into the intricate aspects of Telugu grammar, syntax, and semantic structures, contributing significantly to the understanding of Telugu linguistics.

Professional and Academic Contributions

Professor Reddy's professional career began in 1966 when he served as a Tutor in Hindi at Annamalai University for two years. From 1970 to 1972, he worked as a Research Assistant at the Central Institute of Indian Languages (CIIL), Mysore, where he conducted extensive fieldwork and analysis of Kuvi, a tribal Dravidian language spoken in Odisha and Andhra Pradesh. During this period, his research focused on documenting and analysing the phonology, morphology, and syntax of Kuvi, contributing to the preservation of this endangered language.

Between 1972 and 1976, as a Commonwealth Scholar at the University of Edinburgh, he specialized in general linguistics, Telugu syntax, and ethnolinguistics, with a particular focus on the interface between language and culture. After completing his Ph.D., he returned to India and joined the Central Hindi Institute, Agra, as a Lecturer in Linguistics from 1976 to 1977, where he taught courses on linguistics and continued his research on tribal languages.

In 1977, Professor Reddy joined Osmania University, Hyderabad, as a Lecturer in Linguistics and steadily rose through the academic ranks. He served as a Reader and later as a Professor of Linguistics, specializing in Telugu syntax, Dravidian linguistics, and ethnolinguistics. His research interests expanded to include comparative studies of Dravidian languages and the documentation of lesser-known tribal languages.

Administrative Leadership and Institutional Development

Professor Reddy's contributions extended beyond teaching and research, as he took on significant administrative roles that shaped the growth of linguistic institutions in India. In 1990, he was appointed Professor of Linguistics at Potti Sreeramulu Telugu University, Hyderabad, where he also served as the Dean of the School of Language Development (1990–2002). His tenure as Dean was marked by the development of

innovative academic programs, curriculum reforms, and the promotion of research in Indian linguistics and tribal languages.

From 1991 to 1992, he served as the Registrar of Potti Sreeramulu Telugu University, demonstrating his administrative acumen and commitment to institutional growth. His leadership abilities were further recognized when he was appointed the Founder Registrar of Dravidian University, Kuppam, Andhra Pradesh (1998–2002). As the Founder Registrar, he played a pivotal role in establishing the university's academic framework, introducing new departments, and fostering interdisciplinary research in Dravidian studies, linguistics, and tribal languages.

Research and Fieldwork in Tribal Languages

Professor Reddy's lifelong dedication to the documentation and preservation of endangered tribal languages is reflected in his extensive fieldwork, spanning over three decades. His research encompassed the study of Kuvi, Manda, Kui, and other tribal languages, with a particular focus on their phonological, morphological, and syntactic structures. He was instrumental in drafting Manda-English and Oriya-English dictionaries, which have been invaluable resources for researchers and linguists working on tribal languages.

His pioneering work includes the documentation of oral traditions, folk narratives, and linguistic structures of tribal communities, preserving not just the languages but also the cultural heritage embedded within them. His fieldwork extended to the convergence of Munda, Dravidian, and Indo-Aryan languages in Central India, offering insights into the linguistic dynamics and historical interactions between these language families.

Mentoring, Teaching, and Scholarly Output

With over 25 years of teaching experience and 32 years of research, Professor Reddy has mentored numerous scholars and linguists. He has guided 12 Ph.D. and 10 M.Phil. students, many of whom have gone on to make significant contributions to

linguistics and tribal language studies. His research output includes 20 books and 42 research papers, covering a wide range of topics in linguistics, syntax, and tribal language documentation.

Some of his notable publications include works on Telugu syntax, Dravidian linguistics, and the linguistic heritage of tribal communities in India. His books have been widely referenced by scholars and researchers working on Indian linguistics and endangered languages.

Roles in Academic Bodies and Advisory Committees

Professor Reddy has been actively involved in various academic bodies and advisory committees. He served as the Chairman, Board of Studies in Linguistics, Osmania University (1987–1990), and as the Dean, School of Language Development, P.S. Telugu University (1990–1998). He also held the position of Chairman, Board of Advisors, Tribal Academy, Tejgarh, Gujarat (2003–2005), where he contributed to the development of research and training programs for the preservation of tribal languages and cultures.

Additionally, he was a Member of the UGC Subject Panel on Linguistics, Member of the Technical Advisory Committee at the Indian Statistical Institute, Calcutta, and Vice-President of the Linguistic Society of India (LSI), Pune. He also served as a Consultant Linguist for the Speech Input/Output System for Indian Languages Project at IIT Madras (1988–1992) and a UGC Paper Setter for NET in Linguistics (1995–1998).

National and International Recognition

Professor Reddy's contributions have been recognized both nationally and internationally. He has represented India at various international conferences and academic events in the United Kingdom, Italy, and Mauritius, where he presented papers and collaborated with leading linguists. His work has been acknowledged with several awards, including the Government of India Hindi Scholarship during his

undergraduate and postgraduate studies and the Dr. T. A. Purushottam Prize for academic excellence.

Family and Personal Life

Professor B. Ramakrishna Reddy was married to Professor Nagamma Reddy, a respected Linguist in her own right. Their family is rooted in a tradition of academic excellence and service to society. They have a daughter, Padmini Bandi, who is married to Reddy Chetan Nagarimadugu. Professor Reddy's family has been a pillar of support throughout his illustrious career, enabling him to dedicate his life to the study and preservation of India's linguistic and cultural heritage.

Padma Shri and Legacy

In 2023, Professor B. Ramakrishna Reddy was honoured with the Padma Shri, India's fourth-highest civilian award, in recognition of his lifelong dedication to the documentation, preservation, and promotion of endangered tribal languages. His work has had a lasting impact on Indian linguistics, ensuring that endangered languages and cultures are preserved for future generations.

Through his meticulous fieldwork, scholarly publications, and mentorship of young linguists, Professor Reddy has left an indelible mark on the field of linguistics. His legacy continues to inspire future generations of linguists, researchers, and language preservationists, underscoring the importance of safeguarding India's rich linguistic diversity.

(Compiled by **Dr. Vedantham Muralidhar**)

The Future Tense and the Semantics of *-ib* in Assamese

*Dr. Kailash Sarma, Assistant Professor
Rabindrasadan Girls' College*

ABSTRACT

The present paper investigates the future tense and the semantics of -ib in Assamese from cognitive linguistics point of view. We observe that the past and future are marked for tense in Assamese whereas the present is unmarked. In the traditional linguistic literature of Assamese, the morpheme -ib is identified and designated as the future tense marker in the language. It may be noted that the future represents a projected reality of human experience; and the primary use of the future is to indicate prediction and to involve future time reference. In Assamese, -ib performs this function. The bound morpheme -ib involves elements of both futurity and modality; and thus it grounds a situation either in the projected reality or in the potential reality (Borah 2016). The paper argues that the non-finite verbs in Assamese are also marked with -ib, the future tense marker. We observe that the non-finite verbal infinitive with -ib has a future sense and thus it indicates the speaker's intention, desire or willingness, which are the part of agent-oriented and epistemic modality. The current paper points out that the marker -ib is not only used for projected reality but also for potential reality in Assamese. Therefore, in line with Borah (2016), we argue that -ib, the future tense marker, is part of modal system in Assamese. However, it is not immediately clear whether the futurity of -ib is derived from modality or vice versa.

Keywords: *Prediction, Intention, Projected Reality, Potential Reality, Modality*

1 Introduction

It may be noted that time is purely a semantic category whereas tense is a grammatical category. We observe that Assamese has three times but only two tenses namely past and future as the verbs in Assamese do not inflect for present; they inflect only for past and future. The present is unmarked whereas the past and future are marked for tense in Assamese (Borah, 2010). In

the traditional linguistic literature of Assamese such as Kakati (1995), U N Goswami (1997), Bharali (2000) and G C Goswami (2000), the morpheme *-ib* is identified and designated as the future tense marker in the language. Borah (2016) shows that the future tense in Assamese is part of the modal system as the borderline between futurity and modality is fuzzy. In the present paper, we examine and analyse the future tense and the semantics of *-ib* in Assamese from cognitive linguistics point of view.

2 Future Tense

It is to be noted that future is marked for tense in Assamese, the future tense marker being *-ib*. Consider the examples in (1) and (2) for future tense.

- 1 *dui* *junat* (*SEBAi*) *matric* *parikshyār*
 dui *jun-at* (*SEBA-i*) *matric* *parikshyā-r*
 second *june-loc* (*SEBA-nom*) *matric* *examination-gen*
 phalāphal *ghaxonā* *kariba*
 phalāphal *ghaxonā* *kar-ib-a*
 result *declare* *do-fut-3p*
 ‘On second June, (SEBA) will declare the result of
 matriculation examination.’
- 2 *etāt* *trainkhan* *eriba*
 e-tā-t *train-khan* *er-ib-a*
 one-clf-loc *train-clf* *leave-fut-3p*
 ‘The train will leave at 1 pm.’

The future tense marker *-ib* locates the situations in (1) and (2) subsequent to the moment of speech, i.e. in the future-time sphere. They refer to definite and bounded situations. The situations are viewed externally and with a maximal viewing

frame. They refer to planned and scheduled future events. It may be noted that future represents a projected reality of human experience; and the primary use of future is to indicate prediction and to involve future time reference. In Assamese, –*ib* performs this function. Dahl (1985) shows that future is a common category that occurs across languages and is mainly marked morphologically. Future, as he shows, cannot be used only on the basis of ‘intention’ as a necessary condition: the focal use of the future form is to present the prediction on the part of the speaker that the event is to occur after the moment of speaking and the central functions in future grams¹ are intention and prediction (Bybee et al 1994). On the other hand, in indicating ‘intention’ the future marker performs the function of modality.

Now, consider the two utterances in (3) and (4) below for location of situations and future time references.

- 3 *tumone* *kitāpkhan* *parhi* *thākiba*
 tumon-e *kitāp-khan* *parh-i* *thāk-ib-a*
 tumon-nom book-clf read-prog aux-fut-3p
 ‘Tumon will be reading the book.’

- 4 *arune* *tenis* *kheli* *thākiba*
 arun-e *tenis* *khel-i* *thāk-ib-a*
 arun-nom tennis play-prog aux-fut-3p
 ‘Arun will be playing tennis.’

The situations in (3) and (4) are located after the moment of speaking in a specific future point of time and they refer to ongoing actions. The situations are viewed from inside and with

¹ The term is taken from Bybee et al (1994) which basically means grammatical morphemes.

a restricted viewing frame. They refer to unbounded situations. The utterances in (3) and (4) are in future progressive.

One further use of future is the imperative. As already noted, the future marker is used for the imperative in Assamese. The utterances in (5) and (6) below are further examples of this.

5	<i>tumi</i>	<i>kitāpkhan</i>	<i>parhibā</i>
	<i>tumi</i>	<i>kitāp-khan</i>	<i>parh-ib-ā</i>
	you	book-clf	read-fut-2p

‘You will read the book.’

6	<i>tumi</i>	<i>etā</i>	<i>kabitā</i>	<i>likhibā</i>
	<i>tumi</i>	<i>e-tā</i>	<i>kabitā</i>	<i>likh-ib-ā</i>
	you	one-clf	poem	write-fut-2p

‘You will write a poem.’

The situations in (5) and (6) are located after the moment of speaking, i.e. in the future-time sphere. They indicate the speaker’s intention of request or suggestion and hence, both the utterances are in imperative. This is indicated by the future marker *–ib*.

Future is claimed to be less a temporal category and more a category resembling agent-oriented and epistemic modality, with important temporal implications (Bybee et al 1994). As is shown in Borah (2016), the future tense marker *–ib* is also used in Assamese to ground a situation in the potential reality. Consider the utterances in (7) and (8) below.

7	<i>tumi</i>	<i>kāiloi</i>	<i>āhibā</i>
	<i>tumi</i>	<i>kāiloi</i>	<i>āh-ib-ā</i>
	you	tomorrow	come-fut/mod-2

‘You are coming/will come tomorrow.’

8	<i>tumone</i>	<i>galpato</i>	<i>parhiba</i>
	<i>tumon-e</i>	<i>galpa-to</i>	<i>parh-ib-a</i>
	tumon-nom	story-clf	read-fut/mod-3p

‘Tumon will read the story.’

The situations in (7) and (8) are located after the moment of speaking, i.e. in the future-time sphere. The utterances in (7) and (8) may, depending on the context, may mean either a prediction or an obligation. This is done so and indicated by the bound morpheme *-ib*. It is noticed that the bound morpheme *-ib* involves the elements of both futurity and modality; and grounds a situation either in the projected reality or in the potential reality in Assamese.

We observe that the modal verbs with future marker *-ib* ground the situations in potential reality in Assamese. The modal verbs like *lāg* ‘need’ and *pār* ‘can/be able to’ when added to the future marker *-ib* ground the situations in modality. The sentences in (9) and (10) are illustrative examples in this regard.

9	<i>arune</i>	<i>kāiloi</i>	<i>āhiba</i>	<i>lāgiba</i>
	<i>arun-e</i>	<i>kāiloi</i>	<i>āh-iba</i>	<i>lāg-ib-a</i>
	arun-nom	tomorrow	come-NF	need-fut-3p

‘Arun will have to come tomorrow.’

10	<i>arune</i>	<i>kāiloi</i>	<i>āhiba</i>	<i>pāriba</i>
	<i>arun-e</i>	<i>kāiloi</i>	<i>āh-iba</i>	<i>pār-ib-a</i>
	arun-nom	tomorrow	come-NF	can-fut-3p

‘Arun can come tomorrow.’

It is noticed that the modal verbs *lāg* and *pār* ground *āhiba* in (9) and (10) in modality. It is to be pointed out that the verbal *āhiba* is in non-finite form and still takes the bound morpheme

–*ib*. We observe that the morpheme –*ib* occurs with finite as well as non-finite verbal forms. We further notice that the modal verb *lāg* is person neutral. It does not take first person and second person agreement markers. The utterances in (9) and (10) mean the deontic modality of obligation and the deontic modality of permission, respectively. It may be noted here that the bound morpheme for future –*ib* occurs with the modal verbs² *lāg* and *pār* to ground the situations in potential reality (i.e. modality). Hence, we would like to claim in line with Borah (2016) that the bound morpheme –*ib* is used to indicate both futurity and modality in Assamese. However, it is not immediately clear whether the futurity of –*ib* is derived from modality or vice versa.

3 The Non-finite Verb and the Future Marker

Finite verbs are marked with tense; non-finite verbs are not. But non-finite verbs in Assamese are also marked with –*ib*, the future tense marker. How to account for this fact? Consider the examples in (11) and (12) below.

- 11 *ajantāi* *xangit* *xikiba* *bisāre*
 ajantā-i *xangit* *xik-iba* *bisār-e*
 ajanta-nom music learn-NF want-3p
 ‘Ajanta wants to learn music.’
- 12 *tumone* *badminton* *kheliba* *jāy*
 tumon-e *badminton* *khel-iba* *jā-y*
 tumon-nom badminton play-NF go-3p
 ‘Tumon goes to play badminton.’

² The modal verbs in English (e.g. may, can, need etc.) usually do not take tense markers except for past. Even in the past, they do not indicate time reference but mean politeness or weaker possibility.

In (11) and (12) the non-finite verbs *xikiba* ‘to learn’ and *kheliba* ‘to play’ are marked by *-ib*, the future tense. The question is: is *-ib* in the non-finite verbs a tense marker? Consider the examples in (13) and (14) below.

- 13 *ajantāi* *xangit* *xikiba* *bisārisil*
 ajantā-i *xangit* *xik-iba* *bisār-isil*
 ajanta-nom music learn-NF want-past
 ‘Ajanta wanted to learn music.’
- 14 *tumone* *badminton* *kheliba* *gaisil*
 tumon-e *badminton* *khel-iba* *ga-isil*
 tumon-nom badminton play-NF go-past
 ‘Tumon went to play badminton.’

We observe that even though the situations in (13) and (14) are located prior to the moment of speaking (i.e. in the past time sphere), the non-finite verbs *xikiba* ‘to learn’ and *kheliba* ‘to play’ are still marked with the morpheme *-ib*. Consider again the utterances in (15) and (16) below.

- 15 *ajantāi* *xangit* *xikiba* *bisāriba*
 ajantā-i *xangit* *xik-iba* *bisār-ib-a*
 ajanta-nom music learn-NF want-fut-3p
 ‘Ajanta will want to learn music.’
- 16 *tumone* *badminton* *kheliba* *jāba*
 tumon-e *badminton* *khel-iba* *jā-b-a*
 tumon-nom badminton play-NF go-fut-3p
 ‘Tumon will go to play badminton.’

The situations in (15) and (16) are located subsequent to the moment of speaking (i.e. in the future-time sphere) and the non-

finite verbs *xikiba* ‘to learn’ and *kheliba* ‘to play’ are still marked with the morpheme *-ib*.

It is clear from (11) – (16), where the situations are located in three different time spheres (i.e. present, past and future) with *-ib* in the verb, the future marker in Assamese is also an infinitive marker. This is, however, no accident. Non-finite verbs, e.g. *xikiba*, *kheliba* (in the examples above), have a future sense. Thus, the dative marker *-loi* ‘to/towards’, which has a future sense, is possible with the verbal infinitives with *-ib*; as one would expect *-loi* is not possible with the nominalized infinitives where *-ib* does not occur. The following examples illustrate the point.

- 17 *ajantāi* *xangit* *xikibaloι* *bisāre*
 ajantā-i *xangit* *xik-iba-loι* *bisār-e*
 ajanta-nom *music* *learn-NF-dat* *want-3p*
 ‘Ajanta wants to learn music.’
- 18 *tumone* *badminton* *khelibaloι* *jāy*
 tumon-e *badminton* *khel-iba-loι* *jā-y*
 tumon-nom *badminton* *play-NF-dat* *go-3p*
 ‘Tumon goes to play badminton.’
- 19 **ajantāi* *xangit* *xikāloι* *bisāre*
 ajantā-i *xangit* *xik-ā-loι* *bisār-e*
 ajanta-nom *music* *learn-NF-dat* *want-3p*
- 20 **tumone* *badminton* *khelāloι* *jāy*
 tumon-e *badminton* *khel-ā-loι* *jā-y*
 tumon-nom *badminton* *play-NF-dat* *go-3p*

The examples with *-loi* in (17) and (18) are grammatical/acceptable because *-loi* as a dative has an inherent

future sense, enabling it occur it with non-finite verbal forms with *-ib*, the future tense marker. By contrast, the examples in (19) and (20) are ungrammatical/unacceptable because *-ib* is missing in the nominalized verbal forms in these examples.

The analysis of the utterances in (11) – (18) above confirms that the non-finite verbal infinitive with *-ib* has a future sense and thus it indicates the speaker's intention, desire or willingness, which are the part of agent-oriented and epistemic modality. Therefore, in line with Borah (2016), we argue that *-ib*, the future tense marker, is part of modal system in Assamese.

4 Conclusion

On the basis of our analysis, we have found that non-finite verbs in Assamese are also marked with *-ib*, the future tense marker. It has been observed that the bound morpheme *-ib* involves elements of both futurity and modality; and thus, it grounds a situation either in the projected reality or in the potential reality. However, it is not immediately clear whether the futurity of *-ib* is derived from modality or vice versa.

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Cumulative Conjunctions in the Dravidian Languages: Diachronic and Areal Aspects

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ABSTRACT

Dravidian languages employ two types of syndetic coordination: the mono-syndetic A co-B type and the bi-syndetic A-co B-co type. Besides these two types of coordination, the serial verb construction is another strategy to coordinate clauses in the Dravidian languages. The bi-syndetic A-co B-co type of coordination is older than the mono-syndetic A co-B type in the Dravidian languages. Besides the Dravidian languages, the bi-syndetic type is attested in the Tibeto-Burman and Nicobarese languages, but not in other language isolates and language families of South Asia. The mono-syndetic A co-B type and serial verb constructions, on the other hand, are widely attested in other South Asian languages.

Keywords : *Additive, Coordination, Copulative, Historical, South Asia, Typology*

1 Introduction

Research on South Asian languages including the Dravidian languages generally do not explore the coordination patterns in these languages. The present paper intends to fill this gap by way of analysing cumulative conjunctions (aka ‘copulative conjunctions’, ‘and-coordination’, ‘additive conjunctions’ etc) in the Dravidian languages covering diachronic and areal aspects. The analysis covers issues such as the native Dravidian patterns, patterns that have evolved under contact, and their presence or absence in other South Asian languages.

Cumulative conjunctions refer to coordination of constituents of more or less equal status involving cumulative conjunctions that correspond to the English ‘and’ as in the English expression ‘tea and coffee’ wherein the constituents ‘tea’ and ‘coffee’ are conjoined by way of the coordinator ‘and’. Cumulative conjunctions are often contrasted with alternative conjunctions

such as the English ‘or’, as in the English ‘tea or coffee’, and adversative conjunctions such as the English ‘but’ as in the English ‘rich but humble’. Of these various conjunctions, the cumulative conjunctions corresponding to the English ‘and’ are said to be part of the basic vocabulary of natural languages (Swadesh 1952).

In terms of terminology, ‘co-ordination’ is an umbrella term referring to cumulative, alternative, and adversative conjunctions. In a co-ordinated pattern, as in the English ‘tea and coffee’, the constituents that are co-ordinated are termed ‘co-ordinands’ (for example, in the English ‘tea and coffee’, ‘tea’ and ‘coffee’ are the co-ordinands) and the conjunctions that conjoin such co-ordinands are termed ‘co-ordinators’ (for example, in the English ‘tea and coffee’, ‘and’ is the co-ordinator). Further, when a co-ordinated pattern contains no explicit coordinator, it is an asyndetic type of coordination as in the English ‘ginger lemon tea’ wherein the co-ordinands ‘ginger’ and ‘lemon’ are coordinated by way of no overt coordinator. On the other hand, when a co-ordinated pattern carries explicit coordinators, it is a syndetic type of coordination as in the English ‘pen and paper’ wherein the co-ordinands ‘pen’ and ‘paper’ are coordinated by way of the overt coordinator ‘and’. Following Haspelmath (2007), throughout this paper, ‘A’ and ‘B’ represent co-ordinands and ‘co’ stands for co-ordinators. In a representation such as ‘A co-B’, the dash ‘-’ indicates that the co-ordinator ‘co’ groups with the co-ordinand ‘B’ when the intonation is taken into consideration.

Asyndetic co-ordination is present in all natural languages and, hence, not a matter of study in this paper. Rather, this paper focuses on the syndetic type of co-ordination involving cumulative conjunctions. Typology reports a variety of coordination patterns attested in the world languages including A co-B, A-co B, A B-co, co-A co-B, A-co B-co, A-co co-B, and co-A B-co (Haspelmath 2007). Of these various coordination types, the patterns attested in the Dravidian languages include the bi-syndetic A-co B-co type and the mono-syndetic A co-B

type. Considering the wide spread attestation of serial verb constructions in the South Asian languages, the serial verb construction may be considered as another type of coordination in the context of languages of South Asia. Following sections elaborate on these various types of coordination attested in the Dravidian languages covering diachronic and areal aspects.

2 The bi-syndetic A-co B-co type in the Dravidian languages

Some examples of the bi-syndetic A-co B-co type attested in various Dravidian languages are provided below.

1. The Tamil (South Dravidian) ‘um’ in the A-co B-co pattern

en makanum maka^lum appuram varuvārka^l

I.OBL son.CONJ daughter.CONJ later come.FUT.3HPL

My son **and** daughter will come later.

(Krishnamurti 2003: 454, eg.no. 36, data/gloss regulated)

2. The Malayalam (South Dravidian) ‘um’ in the A-co B-co pattern

sīta innaley^{um} rād^ha innum kālējil cērnnu

Sita yesterday.CONJ Radha today.CONJ college.LOC join.PAST

Sita joined the college yesterday **and** Radha did so today.

(Krishnamurti 2003: 454, eg.no. 36, data/gloss regulated)

3. The Kannada (South Dravidian) ‘ū’ in the A-co B-co pattern

avaru haṇavannū vaḍaveyannū byāṅkinalli iṭṭiddāre

he.HON money.CONJ jewellery.CONJ bank.LOC keep.PR.PF.3HPL

He has kept money **and** jewellery in the bank.

(Krishnamurti 2003: 454, eg.no. 36, data/gloss regulated)

4. The Telugu (South-Central Dravidian) vowel lengthening in the A-co B-co pattern

āmeku oka maga-pillawāḍū oka āḍa-pilla

she.DAT one boy-child.CONJ one girl-child be-PRE

She has a boy **and** a girl.

(Krishnamurti 2003: 454, eg.no. 36, data/gloss regulated)

As may be seen in the above examples, in the bi-syndetic A-co B-co type, the coordinator appears after each of the co-ordinand it conjoins. In the above examples, the copulative enclitic is ‘um’ in Tamil and Malayalam, ‘ū’ in Kannada, and vowel lengthening of the first co-ordinand in Telugu. This bi-syndetic A-co B-co type is diachronically attested in the Dravidian languages as well as may be seen in the Old Kannada example below.

5. The Old Kannada (South Dravidian) ‘um’ in the A-co B-co pattern

...*palmuḍiyum mūluvaḷḷiyum*...

...Palmudi.CONJ Muuluvalli.CONJ...

Palmudi **and** Muluvalli.

(5th Century AD, Halmidi Inscription, Gadya Vihara 1969, data/gloss regulated)

As is clear from the example above, the cumulative clitic in Old Kannada is ‘um’, which is identical in form and function to the clitic ‘um’ of Tamil and Malayalam. Historically, the Old Kannada ‘um’ has evolved into the Modern Kannada ‘ū’ in the following path: ‘um’ > ‘ū’ (loss of the final /m/ and compensatory lengthening of /u/.)

Further, in the Telugu vowel lengthening strategy presented above in (4), the final vowel of the first co-ordinand is lengthened and the vowel length of the second co-ordinand is not lengthened. In this respect, the Telugu pattern is different from the Kannada pattern in (3), wherein the vowel length of both co-ordinands is lengthened. However, the Telugu vowel

lengthening pattern is argued to be historically related to the ‘um’ attested in Tamil (Sastri 1969). Telugu, in its older stages, did carry explicit coordinating clitics on all the co-ordinands its conjoined as may be seen from the below examples. However, such explicit use of coordinating clitics is not attested in the present-day Telugu.

6. The Telugu (South-Central Dravidian) A-co B-co type
with the clitic **nni**

<i>ā</i>	<i>maniṣinni</i>	<i>ī</i>	<i>maniṣinni</i>
that	man.CONJ	this	man.CONJ

That man **and** this man.

(Arden 1905: 82-83, data/gloss regulated)

7. The Telugu (South-Central Dravidian) A-co B-co type
with the clitic **nnu**

<i>mīrunnu</i>	<i>mī</i>	<i>tammuḍunnu</i>
you.CONJ	your	younger brother.CONJ

You **and** you brother.

(Arden 1905: 82-83, data/gloss regulated)

8. The Telugu (South-Central Dravidian) A-co B-co type
with vowel lengthening

<i>ataḍū</i>	<i>nēnū</i>
he.CONJ	I.CONJ

He **and** I.

(Arden 1905: 82-83, data/gloss regulated)

Further, Bray, in his account of Brahui, provides instances wherein ‘um’ performs the cumulative function in Brahui. His example is reproduced below.

9. The Brahui (North Dravidian) ‘um’

ī hum khalkuṭ-ta, kanā mār um khalk-ta

Not only did I myself beat him, but my son beat him into the bargain.

(Bray 1977: 229, no gloss in the original, data regulated)

Below are some more examples of the A-co B-co type attested in the minor Dravidian languages of various subgroups.

10. Muduga (South Dravidian), the bi-syndetic A-co B-co type

<i>avenum</i>	<i>avalum</i>	<i>nadantu</i>	<i>vantaaru</i>
he.CONJ	she.CONJ	walk.non-fn	came

He **and** she came by walk.

(Ravindran et al 2017: 291-292, data/gloss regulated)

11. Kui (South-Central Dravidian), the bi-syndetic A-co B-co type

āmuve īruve gule ro jēḍa ātamu

We **and** you are all of one mind.

(Winfield 1928: 158, data/gloss regulated)

12. Gadaba (Central Dravidian), the bi-syndetic A-co B-co type

<i>o:ṇu:</i>	<i>a:nu:</i>
he.CONJ	I.CONJ

He **and** I.

(Bhaskararao 1980, data/gloss regulated)

When all the above attestations from the various sub-groups of the Dravidian family are taken into consideration along with the attestations in older Dravidian languages, it seems that the bi-syndetic A-co B-co type is an old type of coordination in the Dravidian languages. Considering its attestations across the various Dravidian sub-groups and older Dravidian languages, it may travel back to the proto-Dravidian stages.

From an aerial perspective, there are no attestations of cumulative conjunctions which are of the bi-syndetic A-co B-co type in other South Asian languages including the Andamanese, Indo-Iranian, Khasian, and Munda families as well as the South Asian isolates, namely Burushaski, Kusunda, and Nihali. One exception to this absence of the bi-syndetic A-co B-co type is the Sinhalese A-co B-co type as may be seen in the below example. This pattern reported in Sinhalese is a change resulting from extensive contact with Tamil.

13. Sinhalese (New Indo-Aryan), the bi-syndetic A-co B-co type

<i>mamay</i>	<i>lameay</i>	<i>mahatteay</i>	<i>kolambaṭa</i>	<i>yanəwa</i>
I.CONJ	the child.	the master.	Colombo.ALL	go.NPST
	CONJ	CONJ		

I, the child, **and** the master are going to Colombo.

(Fairbanks, Gair and Silve 1968: 91, data/gloss regulated)

Besides, the Indo-Iranian cumulative conjunction ‘ca’ may occur after each co-ordinand as may be seen in the below examples. In these examples, the pattern of coordination is the A-co B-co type.

14. The Sanskrit (Old Indo-Aryan) ‘ca’ in the A-co B-co pattern

<i>dve</i>	<i>vartmanī</i>	<i>girōdēvyah</i>	<i>shāstramca</i>	<i>kavikarmaca</i>
two	paths	Sarasvati.GEN	the treatise.	the poetry.
		CONJ	CONJ	

The Goddess of Speech (Sarasvati) has two paths: the treatise **and** the poetry.

(Subhashita Manjari 2008: 8, data/gloss regulated)

15. The Pali (Middle Indo-Aryan) ‘ca’ in the A-co B-co pattern

<i>mātā ca</i>	<i>pitā ca</i>	<i>puttā ca</i>	<i>gāmaṃ</i>	<i>gacchanti</i>
mother	father	sons	village.DAT	go.NPST.AGR
CONJ	CONJ	CONJ		

The mother **and** the father **and** the sons go to the village.

(Perniola 1997: 344, data/gloss regulated)

16. The Avestan (Old Iranian) ‘ca’ in the A-co B-co pattern
haṃinəmca zaiianəmca

In summer **and** in winter.

(Martínez and de Vaan 2014:100, no gloss in the original)

17. The Persian (Old Iranian) ‘ca’ in the A-co B-co pattern
aita-maiy aruvastam upariy manaš-cā ušī-cā

This is my ability in thought **and** understanding.

(Skjærvø 2009: 149, data and free translation regulated, no gloss in the original)

However, the repetition of ‘ca’ after each co-ordinand is not the typical use of the Indo-Iranian cumulative conjunction ‘ca’. Rather, the Indo-Iranian ‘ca’ is an enclitic and typically occurs after the last co-ordinand it conjoins as may be seen below.

18. The Sanskrit (Old Indo-Aryan) ‘ca’ in the A B-co pattern

<i>saṃskrutam</i>	<i>pālīca</i>
Sanskrit	Pali.CONJ

Sanskrit **and** Pali.

19. The Prakrit (Middle Indo-Aryan) ‘ca’ in the A B-co pattern

mahanuava maharaya lihati cojhbo kranaya ṣoṭhaṃga lýipesa ca

His Majesty the King writes to the Cojhbo Kranaya **and** the Ṣoṭhaṃga Lýipe.

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(Salomon 1998: 273, no gloss in the original)

20. The Avestan (Old Iranian) ‘ca’ in the A B-co pattern
sādrām uruuištrāmca

Defeat **and** retreat.

(Martínez and de Vaan 2014: 110, 8.23, no gloss in the
original, free translation
regulated)

21. The Old Persian (Old Iranian) ‘ca’ in the A B-co pattern
vašnā auramazdāhā manacā

By the grace of Ahura Mazda **and** of me.

(Johnson 1917: 232, no gloss in the original)

Among the Tibeto-Burman languages, the bi-syndetic type is
reported in some languages including Manipuri and Garo. Some
examples are provided below.

22. Manipuri (Tibeto-Burman), the bi-syndetic A-co B-co
type

ram-ga sita-ga

Ram-CONJ Sita-CONJ

Ram **and** Sita.

(Singh 2022: 47, data/gloss regulated)

23. Manipuri (Tibeto-Burman), the bi-syndetic A-co B-co
type

ce-ne kolom-ne

paper-CONJ pen-CONJ

Paper **and** pen.

(Singh 2022: 47, data/gloss regulated)

24. Manipuri (Tibeto-Burman), the bi-syndetic A-co B-co type

ca-su *coffee-su*
tea-CONJ coffee-CONJ

Tea **and** coffee.

(Singh 2022: 47, data/gloss regulated)

25. Garo (Tibeto-Burman), the bi-syndetic A-co B-co type

aŋ-a-ba *na'-a-ba*
I **also**, you **also**

You **and** I.

(Burling 1961: 64, data/gloss regulated)

The bi-syndetic A-co B-co type, presented above, is not widely attested in the Tibeto-Burman languages. Further, the patterns attested in Manipuri and Garo seem to have developed independently of any influence of the Dravidian A-co B-co type.

Among the Austro-Asiatic languages of South Asia, the bi-syndetic co-A co-B type is reported in the Car Nicobarese language as may be seen below. It may be noted that, in the Nicobarese bi-syndetic type, the co-ordinand occurs before each co-ordinand. Hence, this pattern is structurally different from the Dravidian A-co B-co type and there are no form-correspondence between the Nicobarese and Dravidian conjunctions.

26. Car Nicobarese (Nicobarese), the bi-syndetic co-A co-B type

ná·ʔ *frét* *ná·ʔ* *liviŋ*
CONJ Fred CONJ Livingstone

Fred and Livingstone

(Braine 1970: 229, data/gloss regulated)

3 The mono-syndetic A co-B type in the Dravidian languages

Besides the bi-syndetic A-co B-co type, the Dravidian languages carry another type of cumulative conjunction, namely, the mono-syndetic A co-B type. Some examples are provided below.

27. Kannada (South Dravidian), the mono-syndetic A co-B type

<i>nānu</i>	<i>mattu</i>	<i>nīnu</i>
I	and	you

You **and** I.

28. Tamil (South Dravidian), the mono-syndetic A co-B type

<i>rāmar</i>	<i>maru</i>	<i>cītay</i>
Rama	and	Sita

Rama **and** Sita.

(L R Prem Kumar, personal communication)

29. Tulu (South Dravidian), the mono-syndetic A co-B type

<i>rāme</i>	<i>bokka</i>	<i>sīte</i>
Rama	and	Sita

Rama **and** Sita.

(Sayeegeetha, personal communication)

30. Beary (South Dravidian), the mono-syndetic A co-B type

<i>Subayto</i>	<i>nāsTattag</i>	<i>piṇḍe</i>	<i>pinne</i>	<i>patturum</i>	<i>int</i>
morning.GEN	breakfast.FOR	rice	and	rice bread	
be		balls			

There are rice balls **and** rice bread for the breakfast.

(Kuthettoor and Ananthady 2019: 86, data/gloss regulated)

31. Telugu (South-Central Dravidian), the mono-syndetic
A co-B type

rāmuḍu mariyu sīta

Rama **and** Sita

Rama **and** Sita.

(Bapuji Mendem, personal communication)

32. Gondi (South-Central Dravidian), the mono-syndetic A
co-B type, borrowing from Indo-Aryan

momot basne sottom ani paṇḍing tattom

we bus-by went **and** fruits bought

We went by bus **and** bought some fruits.

(Penny et al 2008: 75, eg.no 318, data/gloss regulated)

33. Gadaba (Central Dravidian), the mono-syndetic A co-B
type

o:ṇ pa:ṭen a:nu

he **and** I

He **and** I.

(Bhaskararao 1980, data/gloss regulated)

34. Brahui (North Dravidian), the mono-syndetic A co-B
type, borrowing from Iranian

kanā urā hoghā o pārē

My wife wept **and** said.

(Bray 1977: 229, no gloss in the original)

As may be seen from the above examples, there are attestations of the mono-syndetic A co-B type in all the four subgroups of Dravidian. However, at least in Kannada, the mono-syndetic cumulative conjunction ‘mattu’ is not widely attested in the older stages. The Tamil ‘marru’ is also not in common use and Malayalam altogether lacks anything parallel to the Kannada ‘mattu’ and Tamil ‘marru’. The Telugu ‘mariyu’ is also not in

common use. However, these forms carry sound correspondence, i.e. ‘maC-’, implying that they have originated from a common source ‘maC-’ which means ‘moreover, besides’. Further, it is not explicit as to in what ways the Tulu ‘bokka’ or the Beary ‘pinne’ is related to the Kannada ‘mattu’ and Tamil ‘maru’ in terms of form-correspondence. Besides, in some Dravidian languages including Gondi and Brahui, the cumulative conjunctions are borrowed from the Indo-Aryan and Iranian languages. Considering the lack of form-correspondence among the various Dravidian mono-syndetic copulative conjunctions and a sparse attestation of mono-syndetic conjunctions in the older Dravidian languages, it seems that the mono-syndetic A co-B coordination in the Dravidian languages is a later development and not as old as the bi-syndetic A-co B-co coordination.

From an areal perspective, the A co-B type is widely attested in other South Asian languages as may be seen in the examples below.

35. Dongwang Tibetan (Tibeto-Burman), the mono-syndetic A co-B type

... <i>ŋu</i>	<i>rõ</i>	<i>ara...</i>
...oil	CONJ	liquor...

...oil **and** liquor...

(Bartee 2007: 256, eg.no. 39, data/gloss regulated)

36. Burmese (Tibeto-Burman), the mono-syndetic A co-B type

<i>maunmaun</i>	<i>ne</i>	<i>myamya...</i>
Maung Maung	and	Mya Mya...

(Soe 1999: 67, eg.no. 142, data/gloss regulated)

37. Korku (Munda), the mono-syndetic A co-B type

... <i>popra harujom-bà</i>	<i>ɖo</i>	<i>ɖeèn t̚ h aârba</i>
-----------------------------	------------------	------------------------

...den, hole build:AUX-PRES/FUT **and** that-LOC dwell-PRES/FUT
(They make their holes (dens) on the hillsides in the forest **and**
live there)

(Anderson 2008: 294, eg.no. (ii), data/gloss regulated)

38. Khasi (Khasian, Austro-Asiatic), the mono-syndetic A
co-B type

<i>ma u</i>	<i>bad</i>	<i>ma ka</i>
He	and	she

(Nagaraja 1985: 23, data/gloss regulated)

39. Pnar (Khasian, Austro-Asiatic), the mono-syndetic A
co-B type

<i>æm</i>	<i>ar</i>	<i>ngut</i>	<i>chi</i>	<i>lok</i>	<i>ki,</i>	<i>u nik</i>	<i>wa</i>	<i>u singh</i>
em	ar	ŋut	tʃi	lɔk	ki	[u=nik]	wa	[u=sɪŋ]
Have	two	CL.HUM	one	friend	3PL	M=Nik	COMT	M=Singh

There lived two friends, Nik **and** Singh.

(Ring 2015: 374, eg.no. 908, data/gloss regulated)

40. Nihali (Isolate), the mono-syndetic A co-B type,
borrowing from Korku (Munda)

...*sa:na* ***ɖo*** *ɖukri*...
...oldman **and** woman...
Oldman **and** woman.

(Nagaraja 2014: 172, eg.no. 74, data/gloss regulated)

41. Burushaski (Isolate), the mono-syndetic A co-B type

<i>i-yeec-umi</i>	<i>(ke)</i>	<i>han</i>	<i>giram-an</i>	<i>dilum</i>	<i>ke</i>	<i>ese</i>
saw.PST.3MSG	COMP	one	village-	be.PST.[–H,	and	that
			SG.NDEF	II]		

maliŋ-ulu i-yeec-umi (ke) qarqaamučo-ik buuṭik biyom

village-in	saw.PST.3MSG	COMP		hens-	many
				PL.	be.
				INDEF	PAST.PL
					.[-H, I]

He saw (that) there was a village **and** in that village he saw
(that there) were many hens
(Munshi 2019: 120, eg.no. 56b, data/gloss regulated)

42. Great Andamanese (Andamanese), the mono-syndetic
A co-B type

<i>t^hu</i>	<i>rɛfi-bi</i>	<i>ra=fue-k-o</i>	bo	<i>t^hu</i>	<i>t^hi-bi</i>	<i>place-ABS</i>
1SG	rice-	CL 6=cook-	CONJ	1SG	place-	clean-
	ABS	FA-PST			ABS	DST.PST

I cooked the rice **and** cleaned the place.

(Abbi 2013: 253, eg.no. 53, data/gloss regulated)

In terms of contact and convergence, the Indo-Aryan mono-syndetic A-type conjunctions (the Bengali ‘ar’, the Hindi ‘aur’, the Marathi ‘ani’ etc with an initial /a/ or /o/) have spread to the South Asian languages of other families, but this matter is not a topic of this paper and, hence, will not be elaborated.

4 The serial verb constructions in the Dravidian languages

There is some scope to consider the South Asian serial verb construction as a coordination type when coordination involves conjoining of clauses. Serial verb constructions are widely attested in South Asian languages and verb sequences are found in complex predicates, subordination, and coordination. Below are some examples of serial verb constructions in the context of coordination from various subgroups of the Dravidian family. In the below examples, the participial forms of the verbs perform the function of coordinating the clauses.

43. Kodava (South Dravidian), verb serialization

anche maneku poitui enaku káyada ennéng
 post office.DAT **having** I.DAT letter anything like that
gone or
banietáandu nótitu bá
 came.QUOTATIVE **having seen** come

Go to the post office and see if there are any letters for me.

(**Having gone** to the post office, **having seen** whether there are any letters for me, come.)

(Cole 1867: 110, data/gloss regulated)

44. Kui (South-Central Dravidian), verb serialization

kṛāḍi vīanai eanju degitenju
 tiger **having shot** he ran away

He shot the tiger and ran away.

(**Having shot** the tiger, he ran away.)

(Winfield 1928: 132, data/gloss regulated)

45. Kolami (Central Dravidian), verb serialization

ām bassut set paṇḍl kottam
 we bus-by **having gone** fruits bought

We went by bus and bought some fruits.

(**Having gone** by bus, we bought some fruits.)

(Penny et al 2008: 75, eg.no. 318, data/gloss regulated)

46. Malto (North Dravidian), verb serialization

ēn nāran aṇḍ-a coṛṇtan
 I-NOM ghost-ACC **find-CNJ-TPE** be startled-PST-1S

Having found the ghost, I was startled.

(Steever 1998: 380, eg.no. 38, data/gloss regulated)

Some instances of serial verb co-ordination in other languages and language families of South Asia are presented below.

47. Hindi (Indo-Aryan), verb serialization

<i>banie</i>	<i>ke</i>	<i>beṭe</i>	<i>ne</i>	<i>ciṭṭhī</i>	<i>likhkar</i>
the shopkeeper	GEN	son	ERG	a letter	having written
<i>ḍāk me</i>	<i>ḍālī</i>				
post box.in	put.PST				

The shopkeeper's son wrote a letter and mailed it at the post office.

(The shopkeeper's son, **having written** a letter, put it in the post box.)

(Masica 1991: 399, eg.no. 487, data/gloss regulated)

48. Middle Persian (Middle Iranian), verb serialization

<i>ud</i>	<i>az</i>	<i>kurd-ān</i>	<i>mard</i>	<i>1000</i>	<i>ōzad</i>	<i>abārīg</i>	<i>xast-ag</i>
and	of	Kurds	man	1000	killed	remaining	wounded
<i>dast-gīr</i>	<i>kerd</i>						
captive	made						

and he killed 1000 men of the Kurds; **having wounded** the rest, he took them captive.

(Skjærvø 2009: 246, data/gloss regulated)

49. Rabha (Tibeto-Burman), verb serialization

<i>aŋ</i>	<i>cika</i>	<i>ru-i</i>	<i>gur-nata</i>
I	have	bath-INCOMP	lie.down-PAST

I had a bath and lay down.

(**Having taken** a bath, I lay down.)

(Joseph 2007: 469, data/gloss regulated)

50. Mundari (Munda), verb serialization

ne saan sařima-cetaŋ-te=bu dondo-rakab-e-a.

this firewood roof-over-to-1PL.INC lift-go up-it-IND

We will lift this firewood and take it up to the roof.

(**Having lifted** this firewood, we will take it up to the roof.)

(Anderson 2008: 135, eg.no. 116, data/gloss regulated)

51. Burushaski (Isolate), verb serialization

nu-o-squl, zu-çu baan

PTCP-3PL-burn, come-IPFV be.PRES.PL

Having burnt (them), they come (back).

(Munshi 2019: 132, data/gloss regulated)

As may be observed from the above examples of serial verb constructions attested in various South Asian languages, the cumulative conjoining of clauses is achieved by way of conjunctive participial forms of verbs as well in place of cumulative conjunctions in these languages.

5 Concluding remarks

The bi-syndetic A-co B-co type and the mono-syndetic A co-B type are the two coordination types regularly attested in the Dravidian languages. Diachronically, the bi-syndetic A-co B-co type is older than the mono-syndetic A co-B type. The bi-syndetic A-co B-co type is also reported in the Tibeto-Burman languages and the Car Nicobarese language has the co-A co-B type. The mono-syndetic A co-B type is widely attested in other South Asian languages. Besides these two syndetic types of coordination, the South Asian languages including the Dravidian languages generally employ serial verb constructions to coordinate clauses.

Notes

Glossing and transcription conventions follow the original sources in cases of cited data and modifications are stated explicitly. All other glosses closely follow the Leipzig conventions. ‘v’ is a short vowel as in ‘a’; ‘v̄’ or ‘v:’ is a long vowel as in ‘ā’ or ‘a:’; ‘y’ is palatal approximant; ‘j’ is voiced palatal fricative; a dot ‘.’ below consonant-symbols represents the retroflex series as in ‘ṭ’. In the examples, the conjunctions and conjunctive participials of verbs are presented in the **bold** face for ease of reading. Many thanks are due to the following consultants for their generous support with various data: Bapuji Mendem (Telugu), L R Prem Kumar and Seenuvasan Vedachalam (Tamil), and Sayeegeetha (Tulu).

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Ethnolinguistic Study of Uchai:

An Endangered Language of Tripura

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ABSTRACT

Out in the North-Eastern part of India, there is a place called Tripura stands tall in the land made of lush greenery and hillocks, with the abundance of flora and fauna. The total land locked area of this state is 10486 square kilometres, and the total population is 3673917 as per the 2011 census report. The population is consisting of tribe and non-tribe. The official language of this state is Bengali and Kokborok. The tribes of this state mainly come under the Boro-Garo group. Uchai is one of the nineteenth tribes that settled in Tripura. Uchai is a Tibeto-Burman language mainly spoken in Tripura. According to the 2011 census report the total population of the tribe is just merely 2447, concentrated mainly in Belonia and Amarpur subdivision. This paper is going to examine the linguistic ecology of Uchai. It will also deliberately give an account on the tribe Uchai itself, Occupation and Economy, Social structure, Social and religious custom, food habit, dress and ornaments, transition in Uchai society and lastly on language. Apart from this the paper also gives a brief note on phonology especially—phoneme inventory, distribution and description of phonemes.

Keywords: Sociolinguistic, Uchai, Tibeto-Burman, Bodo-Garo.

1 Introduction

Language is the most unique feature that differentiate human from any other living creature in this planet. Language is the medium to perform the social chit-chat, the meaningful conversation as well as meaningless, of a particular language community. Language is the sole bearer of the ethnic identity of

a particular tribe/ community. Similarly, it carries the culture, tradition, religious practices, customs and common believes of the community. Here in this paper, we are going to give an account on the sociolinguistic overview of an endangered language of Tripura i.e. Uchai/ Uchoi. In Tripura, there are total 19 tribes who live peacefully with the largest Bengali speaking community. The total population of Tripura is 4147000 (Population Projections for India and States, 2011-2036), the official language of the state is Bengali, Kokborok and English.

The Uchai speakers hold only a small portion among the total population of the tribal speakers. It is endangered in its sense. Hardly any extensive work has been done on this particular language. The speakers are living in the constant force of dominant Kokborok and Bangla language. So, there is a gradual shift towards the dominant languages in this case Kokborok. This paper is going to give a brief note about the tribe and their ethnicity.

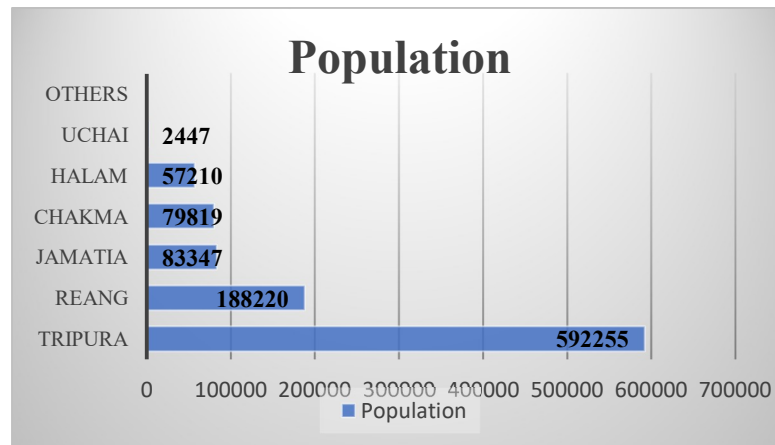


Figure 1—Tribal Population of Tripura

1.1 Place of Uchai in Language Family

The term Sino-Tibetan was coined by Jean Przyluski in 1924. Tibeto-Burman is the sub-brunch of Sino-Tibetan. Sino-Tibetan is the most populous language group in the world, predominantly spoken in the South-East Asian countries like

China, India, Nepal, Myanmar, Northern parts of Thailand, Laos, Vietnam. One of the typological features shared by almost every Sino-Tibetan language is its Tonal feature. North-Eastern states of India are the hotspot of Language diversity. Many researchers tried to place the language in the family tree, some of them are mentioned here—

According to Benedict (1942), Sino-Tibetan languages fall into two groups—Sinitic and Tibeto-Karen; the later again sub grouped as Karen and Tibeto-Burman.

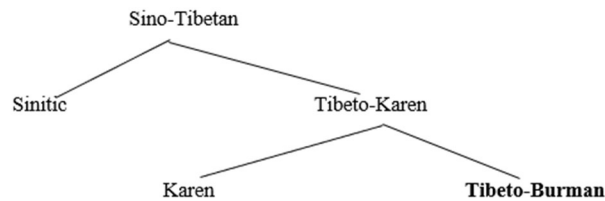


Figure 1.1: The classification of Tibeto-Burman by Benedict (1942)

According to Sergei Starostin (1996), Sino-Tibetan is divided into two major groups i.e., Sino-Kiranti and Tibeto-Burman. He also further classified the main Sino-Tibetan into three major groups namely Sinitic, Kiranti and Tibeto-Burman.

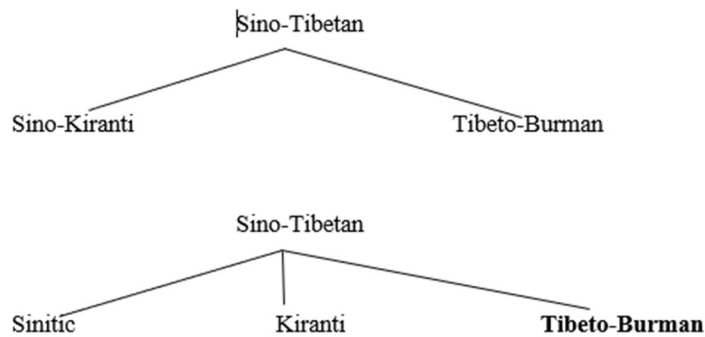


Figure 1.2: The classification of Sergei Starostin (1996)

Needham, Robinson (1855), classified Sino-Tibetan into two branches—Tibeto-Karen and Chinese. Under Tibeto-Karen, Tibeto-Burman and Karen. The Tibeto-Burman is again sub divided into Tibeto-Kanauri, which is again further classified as Kachin, which has many branches namely—Kuki-Naga, Lepcha, Bahing Vayu, Newari, Abor Miri Dafla, Bodo-Garo, Konyak, Trung, Luish Taman, Burmese-Lolo, Nung (ish).

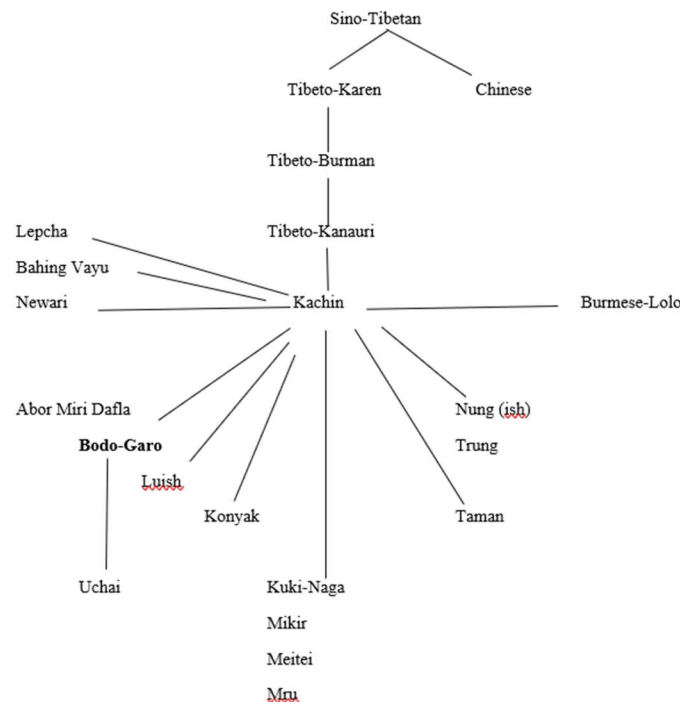


Figure 1.3: Classification of Needham, Robinson (1855)

Scot de Lancy (1989) classified Tibeto-Burman into 4 groups—Bodic, Baric, Burmic, Karenic. He again grouped Bodic as Bodish and East Himalayan; Baric as Kamarupan and Kachinic; Burmic as Riyang Lolo Burmic. Kamrupan again sub-classified into Abor Miri Dafla, Mikir Meitei, Kuki Naga, Bodo Konyak. On the otherhand, Kachinic grouped into two—Luish, Jingphlo.

Bodo Konyak again sub-branched into two as Konyak and Bodo.

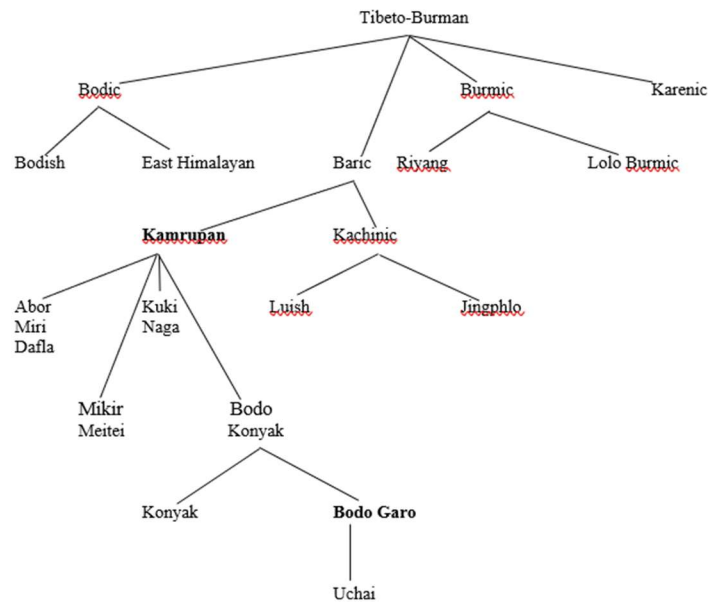


Figure 1.4: The Classification of Scot de Lancy (1989)

2 The Tribe Uchai

According to Thomas H. Lewin's 1869 spelling of the name, the Uchai are a small ethnic group that primarily inhabits the southern regions of Tripura. As of the 2011 census, there were only 2447 members of this tribe. In the Khagrachori Hill District, some Uchais reside in the Chittagong Hill Tract. However, they always identify as Tippera, whereas their neighbouring tribes call them Mrung, which is also the Mranma (Arakanese) term for Reang. However, in terms of ethnicity, Uchai is more similar to Bru than to Tippera; according to Debnath's description (2010, p. 31), their tradition unites Bru and Uchai as brothers, and they too experienced early Tippera dominance.

2.1 Ethnicity

The scholars have struggled with Uchai's ethnicity. They are the Kuki origin, according to R. H. Sneyd Hutchinson (1906), although S. Debbarma (1983) believes they are a blend of Tippera and Kuki. According to Debbarma's analysis in 1983, the term Uchai originates from the title 'Ulchoi' bestowed upon them by the Tripura ruler of that era. The Kokborok term for 'Ulchoi' is 'ullo-' which means 'after' and 'çoi' which means 'to follow' (ul-çoi phainai/ 'one who came after following someone). Ulchoi later became Uchoi and is now known as Uchai as time goes on. Once more, according to their stories, Debnath (2010) provides us with an intriguing account of the Uchoi migration: "...a particular monarch of Arakan valley abducted them and put them in the highlands above Maungdaw, where they live under their own Kings in peace for a very long period. Then, one day, a group of people arrived from the west, and their monarch made an effort to get along with the Maungdaw King by inviting him to supper. However, the latter was given poison along with his meal, which caused him to pass away. A messenger was dispatched to Maungdaw in the interim to urge the populace to pledge allegiance to the new monarch; if they did not, they would face the danger of a punitive expedition. Several hundred men, women, and children were brutally killed when they refused to obey. 'Ringsa' and 'Uchya' the only two brothers, were able to get away. However, they separated the survivors into two groups because they were afraid of being pursued. Ringsa, the senior, arrived Tripura was first, before Uchya. The Riangs derived from the clan that came before them, according to the Uchais of today, who claim to be descended from the younger brother, Uchya.

Regardless of the Uchais ethnicity, it is understood that they came from the Chittagong Hill Tracts during the reign of Maharaja Birendra Kishore Manikys in the second decade of the 20th century. Under the guidance of headman Ramananda Uchoi, they made their first foray into modern day Tripura, from where the then King of Tripura rehabilitated them at Srakbai, or

modern day Charakbai, under the Belonia sub-division of South Tripura district. Afterwards, they scattered and established themselves in many other regions of Tripura, particularly in South Tripura.

The villages where Uchais currently reside in large numbers, are Kewai Uchoi Para, Dhanachandra Uchoi Para, Purna Uchoi Para, Punniram Uchoi Para, Sogoram Para, Khumbaiha Uchoi Para, Thandachandra Uchoi Para, and Mission Hathai Para under the Karbook sub-division of Gomati district; they also live in somewhat sparsely populated Dasda & Jampui villages in Kanchanpur sub-division of North Tripura District and Ratanpur, Muhuripur, & Khahsingkho villages under Belonia sub-division of South Tripura district.

2.2 Uchai Clan

Uchais typically have light auburn or yellow-auburn complexion. Uchais have several characteristics with other Mongoloids, including a broad head, round face, thick lips, tiny eyes, a flat nose, pointed black hair absent of body hair, a beard, and a moustache. They are an average height tribe that works incredibly hard and rigorously, regardless of gender. These are twelve clans among the Uchoi tribe. The Uchais can be divided into twelve clans, which are:

- a) Paingk'toma
- b) Owauchu
- c) Jawlai
- d) Tuimoi Yaphow
- e) Kaisni
- f) Chongpraing
- g) Paitokra
- h) Meska
- i) Dousoi
- j) Skang
- k) Towma Yaphow
- l) Towma Yak'cho

Nevertheless, not all of the aforementioned clans reside in Tripura; only a small number do.

2.3 Highland Life

The Uchai tribe's way of life and place of residence in the highlands has evolved with time, much like that of the other Tripura highlanders. Uchai settlements were formerly constructed using the expediency principle. They did not have a permanent residence because their way of life encouraged frequent relocation of village locations, which was mostly dependent on the availability of 'jhum' lands. In addition, *the* village locations were chosen in proximity to a water source to enable both domestic water transportation and farming. These well-organised villages frequently oversaw the management of the village granary, settlement, farming, and fighting among other essential operations. However, as per Debnath (2010), permanent settlement has caused this practice to be abandoned now-a-days.

2.4 The Village

Now-a-days, Uchai villages differ in size and makeup. In the past, Uchai communities were given names depending on headman or chiefs. In certain cases, a hamlet was even designated by its closest water supply or hill. However, a village or hamlet is named after its original creator now-a-days. A typical Uchai village has rows of dwellings arranged on either side of a path. There are open areas in between the homes, and every home has a natural backyard that may be used for kitchen or gardening. In addition, a typical Uchai village has no fences around the houses.

Organising feasts was an integral aspect of living in the mountains. A sense of community and belonging was fostered by these feasts. And the former merit-based feasts of higher social importance. Similar to this, the Uchais' observed the buffalo-killing ritual as a communal occasion. The communal feast, that day included the consumption of the sacrificed buffalo meat, and the festivities continued for the entire day.

These rituals were observed by the Uchai away from the communities, often along a riverbank. However, the highland communities are no longer a compact and cohesive unit, and as a result, these days, feasts of merit are rarely conducted. Undoubtedly, the traditional way of life of the Uchai and other highlanders was negatively impacted by changing social norms. Furthermore, the religious discussion resulted in the abandonment of the long-standing customs, since the Uchai tribe's Christian portion keeps them apart from all animistic Hindu customs.

2.4.1 Village Administration

Like other highland tribe, the Uchais have their own legal system and village government structure. Chowdhury is the common name for the hereditary chief who preside over the village council and manages the judiciary and administration of the village. He is traditionally granted complete administrative and judicial authority, with the help of a 'Karbari'. As previously stated, in Uchai society, the position of Chowdhury is inherited. When he is not around, 'Karbari' is in charge of the village's administration. Nonetheless, the villages have the option to choose a new chief or assistant if they feel that the current chief and his 'Karbari' assistant are not suitable. The chief, who possesses absolute authority, can make decisions regarding any dispute, thievery, any type of argument in the community, only after getting permission and advice from the elders. The Chief handles all criminal matters and social injustice in conformity with the Uchai society's customary rules.

2.4.2 The dwelling House

The usual building materials for Uchai stilt house, are bamboo, wood and thatch-grass that is gathered from the surrounding forest. A typical Uchai home never uses stone or concrete blocks. Bamboo flooring is elevated significantly above the ground and sustained by bamboo uprights. One could build

house pillars out of wood. The roof is covered with thatch-grass or bamboo leaves, while the walls are made of matted bamboo. The open-air platform is still located in the back of the house, but a portion of it is extended to the front and leads to a cozy portico.

3 Occupation and Economy

Like all other highlanders, Uchai develop and are fed by mother nature herself. As a result, their economy's treasure is hidden deep within the lush jungles, woods and forests. They rely heavily on these hills and forests for their sustenance. As a result, the economy of Uchai was historically built on swidden and was practically self-sustaining.

3.1 Cultivation

Like other highland tribes, the Uchai practiced slash and burn agriculture, or 'huk' as it was colloquially known. The main components of fire-fallow cultivation, or 'huk', include choosing a good location as indicated by implanting a 'wakha', offering poultry to appease evil spirits, and then cutting the jhum plot. Soon after the first spell of rain, the sowing process starts. Different seeds, such as paddy, melon, pumpkin, cucumber, beans, sesame, chilli, oilseeds etc. are sown using instruments like 'kasleng' (a bamboo cutter) and 'da' or 'darma' (an iron cutter). To ensure that the germination proceeds without incident, the Uchais perform worship, known as 'Urikhung'. However, because of certain Government regulations and policies, the conventional method of harvesting is currently under jeopardy. Swiddening is now categorically denounced as the cause of destruction of forest region. The Uchais, no longer often practice swiddening since plough farming has replaced the outdated technique.

3.2 Fishing

One of the main foods consumed by the Uchais is fish and they using age old gear such as fishing nets, basket traps, and fishing rods. Also, a type of hill-growing creeper called 'rut' is

employed to pull fish out of the stream. The Uchais employ a straight forward method: they crush, juice, and soak the creeper root in various locations along the stream to immobilize any fish that happen to stray there. The fish then floats to the surface where they can be easily collected. In addition to fish, Uchais also like eating various kinds of crabs and marsh tortoise. These days, purchasing fish from the local market suffices to meet the scarcity.

3.3 *Forging*

The Uchais used to heavily pursue foraging as a source of subsistence, though this practice has since greatly decreased. Foraging is primarily linked to women, children and elderly people who are unable to travel for 'jum'. They gather many types of yams, potatoes, tubers, roots, and especially the soft bamboo shoots. The Uchais also enjoy mushrooms and the cones of several varieties of wild banana. The iron-chopper is the only equipment used for harvesting food; other tools included sharp bamboo sticks.

3.4 *Husbandry*

The Uchais have long engaged in the practice of animal husbandry. Raising pigs is the most common practice among the Uchais, just like it is among other tribes in Tripura. It is noted that practically every home has a pigsty with sturdy fencing surrounding it beneath the bamboo platform. Although the country pig is the best choice for meat, the Uchais are now forced to use hybrids due to the risks involved in raising them. The free-ranging system is used with poultry; during the day, the birds are allowed to travel freely, but at night, they are kept in cages or contained enclosures. Most families that cultivate land for ploughs today raise cattle primarily for farming purposes, with the occasional goal of selling milk, in addition to pigs and chickens.

4 Social Structure

Like every other society, the Uchai tribe has its own social structure as well as a unique way of life. The clan system and ancestry are the cornerstone of Uchai civilization. The Uchais are renowned for their kindness and simplicity; they are jovial, polite, honest and helpful to one another.

4.1 Family Type

As Uchai family is patriarchal; the male head is the authority figure, and the other members live and work with his lineage, without differentiation from the other highland tribes of Tripura. In the Uchais, families consisting of married men, and their unmarried daughters who are descended from a common ancestor for three generations are the most common type of family. All of them are ingrained in the male head of the family; also, a daughter marries into her husband's family and moves out of her father's home. Among the Uchais, inter-clan marriage is also common. In these situations, a child who is male is identified with his father's clan, and a child who is female is identified with her mother's clan. Each family member plays a specific role based on age and gender, and they have close relationships with one another. The head of the family, who is undoubtedly a male, has the responsibility of upholding discipline in the home and representing the family in the community.

4.2 Property and Inheritance

Unlike the other swidden practicing tribes of Tripura, the Uchais had no concept of property and inheritance. They have traditionally considered ridges and arable land to be communal property. The only moveable items that Uchai communities carried when they moved were those that were absolutely necessary for daily living. However, aside from social titles and endowments, the majority of movable property, such as livestock and poultry, was passed down from father to son. Women were typically not allowed to inherit. Up until recently, only Uchais men had authority over inheritance and property.

4.3 Position of Women

As noted with accuracy by Debnath (2010, p. 107), ‘...that the highland woman is a social personality—a daughter to one, a wife to another, a mother to a third, a sister to a fourth, etc.—balancing the male roles as son, husband, father, brother, and so on. But the actual picture is that she toils every day from sunrise to sunset, and the so-called division of labour allots to her more work and less leisure than to the men’—women’s status in Uchai society is not an exception. Even though a Uchai woman has a great deal of freedom when it comes to choosing a partner, getting married, and divorcing, gender inequality is still present in the group’s socialization process when she is tasked with taking care of the family, cleaning the house, and helping a man in the ‘jum’, which keeps her out of all shared economic and political power. She was not allowed to inherit or possess property until recently.

5 Social and Religious Custom

The Uchais’ sense of community is derived from their practise of social and religious practices. The life-cycle rites always give the Uchais the chance to strengthen their familial bonds. However, on special occasions like weddings or childbirths, not only the nearest relatives are invited, but also the neighbours and perhaps the entire village, which fosters a sense of closeness and unity.

5.1 Life cycle of Ceremonies

When a kid is born, the Uchais carry out specific ceremonies. When a lady becomes pregnant, Uchais worship "tui chaumi," which is an occasion for the priest, or "owchai," to sacrifice a chicken. A 'kumarjuk' or accoucheuse helps a Uchai woman in her private room both before and during childbirth. The kid's "name giving ceremony" takes place once the mother and infant are deemed chaste after the child's umbilical cord is severed, or "homkhai," seven days after the child is born. After five months of birth, a worship called "bagcha" is held to help the kid develop the necessary muscles to stand and walk. additionally,

a year after the child's birth, the parents may participate in a similar kind of worship for his/ her overall development. It goes without saying, though, that these days, because of the Uchais' current socioeconomic circumstances, such worship and rites are uncommon.

The ideal marriage among the Uchais is one in which the couple lives with the father-in-law and provides 'chamari,' or bride-service, to the family for a minimum of three years. Even though Uchai marriages involving bride services are now secretive, they are still practiced in isolated, far-flung hamlets. Once a suitable female has been identified, the boy's family makes the marriage proposal through a middleman known as "rayba." If the proposal appears to be positive, a day is set aside, and the boy's parents visit the girl's home with two bottles of rice beer to arrange the wedding date. 'Kau sungmi' is the term used to describe such an incident. It is traditional for the groom to visit the bride's home on the designated date, dressed in a new outfit and headpiece, and carrying a large chopstick on his shoulder with other family members and friends. In relation to this, it is important to note that Uchais, in terms of the clans, are neither strictly endogamous nor strictly exogamous. Once more, without exception, there is a general tendency toward monogamy; but a man or woman can always remarry after the first spouse passes away. In addition, Uchai custom dictates that marriage payments occur when the bride's wealth is passed from the bride-taker to the bride-giver. But modern times have brought about changes, and educated men now perceive the traditional way of marriage as repulsive.

The idea of reincarnation is held by the Uchais. When an Uchais passes away, their body is cleaned in the courtyard, given a fresh outfit, and brought into the home. The neighbours and family gather and spend the entire night sitting in a circle around the body, sometimes sobbing and other times singing funeral hymns. The body is taken the following morning, still in its "talai" (funeral bed), to a less-travelled location beyond the village's residential area, usually beside a riverbank. Coins are

thrown in the names of the deceased as they are being carried to the cremation site. The body is burned on a pyre composed of five or seven layers of firewood after it arrives at the crematory. But when it comes to a child, depending on the parents' wishes, the body may be buried or cremated. In addition, Uchais who practice Christianity are buried according to Christian doctrine and customs.

5.2 Religious Practice

The Uchais' religious customs and deity worship are remarkably similar to those of the other Tibeto-Burman tribes in Tripura. One of the most traditional tribal celebrations in Tripura is the Ker Festival, in which Uchais participate. The celebration is conducted in July to honour the guardian deity of Vaastu Devata, known as "Ker", which means "austerity". This puja is carried out to safeguard the populace against harm from the outside world and to shield them from illness, misfortune, and poverty. The "Worship of Rantak," another well-known religious celebration observed by the Uchais, is typically conducted following the end of the harvest season as a representation of wealth and success. Other than the festivals of Rantak and Ker, Uchais worship the god of water whenever you find yourself next to a rivulet or on a riverbank for overall household prosperity. The Uchais also highly revere "Naksu Mtai", the goddess of snakes, mostly for fertility and prosperity as well as for preventing and curing snakebite. It is important to note, nevertheless, that the Uchais practice symbol worship—a practice known as "lamprawathop"—and do not use idols to worship their gods and goddesses. Additionally, the Uchais participate in their own religious festivals and rituals with great enthusiasm.

6 Food habit

The eating habits of Uchais are as straightforward and unremarkable as their manner of life. Their main food is rice. They enjoy eating pig, wild potatoes, bamboo shoots, and other types of fish in addition to rice. The three main methods of food

preparation used by the Uchais are boiling, burning, or baking. The Uchais take great pleasure in "godok," "butoi," "awanduru," and "chakhui" among other boiled curries. Before consuming them, uchais frequently burn meat, fish, and wild potatoes; this technique is especially utilized when making "bharta." The Uchai society no longer practices the most primitive method of eating while baking, with the exception of the occasional baking of meat on an iron stick. Like other tribes in Tripura, the Uchais have a low tolerance for oil and spices and utilize them sparingly in their cuisine.

7 Dress and Ornaments

The Uchai tribe does really wear extremely basic clothing. The uchai guy prefers to dress in 'khutai' for the upper body and 'kansha' for the lower body. Conversely, a Uchai woman covers her top and lower body with a "risa" and a "rignai" that she makes herself. In addition, Uchai women don blouses, or "khutai," rather of risas. The Uchais assert, however, that although the Reangs customarily wear their clothing to or above the knees, they actually wear clothing below the knees. Furthermore, younger ladies now wrap their entire leg, including the toe, in "pachra." In addition to her clothing, a Uchai lady adorns herself with necklace (sigo), bracelet (tro), anklet (benge), ring (jauhstan), ear ring (wakhon), nose ring (naphu) and clip (sanga). Unfortunately, the younger age seldom ever favors the traditional attire and decorations worn by the older generation.

8 Transition in Uchai Society

New aspects gradually seeped into the socio-economic, cultural, and political frameworks that currently define the Uchai tribe and society as a result of historical developments in society. It is impossible to ignore how clearly the old system has given way to the contemporary one. The conversion of a sizable portion of the Uchais to Christianity is among the most important factors contributing to the changes in society.

In terms of economy, plough cultivation has replaced the antiquated slash and burn approach; as a result, the Uchais no longer frequently engage in swiddening. Once more, in recent years, cottage industry has also experienced a setback. Saying that the majority of the younger generation is uninformed about the craft of bamboo and cane would not be an overstatement. In addition, handloom or waist-loom crafts are currently facing extreme danger and may even go extinct. In addition to the fact that obtaining raw materials has grown more expensive and challenging, the younger generation now favours modern clothing over traditional attire.

The tribe's way of living has greatly changed as a result of their permanent settlement, and traditional Uchai stilt houses are now rare. There has been a radical shift in the Uchais' traditional family structure. The large joint family was valued highly in the past, but today's educated couple chooses a modest family with no more than two or three children due to financial considerations. Once more, cross-cousin unions were not unheard of in the past; nevertheless, when family structures were altered by subsequent socioeconomic shifts, the custom gradually lost popularity. Additionally, there has been a shift in the village's administration. In Uchai society, the position of Chowdhury is no longer hereditary; instead, candidates are chosen according to their qualifications and abilities. Still, a 'Sarpa'-led organization has been established for the Uchais' socioeconomic and cultural development.

9 Phonology

In the very general sense, the term phonology stands for the sound patterns of a language. In every language we have a limited set of distinctive sound units, which is again termed as phonemes. So, in this sense the task of phonology is to study the sound properties of a particular language, in this case Uchai. Phonemes are the minimal units in the sound system of a language, and it can be of two types depending on the types of units i.e. vowel and consonant.

9.1 Vowels

Vowels are the nucleus of a syllable. Vowels can be defined in both phonetically and phonologically. As Crystal (2000:415) points out, ‘phonetically vowels are sounds articulated without a complete closure in the mouth or a degree of narrowing which would produce audible friction; the air escapes evenly over the centre of the tongue’, simple based on this we have two types of vowels depending on the escape of air, oral vowel, when the air escapes only through the mouth and nasal vowel, when some air also passes through the nose simultaneously. On the otherhand, Phonologically, vowels are considered as the essential sound segment that function in the core of a syllable i.e. nucleus. In Uchai we have 6 (six) vowel phonemes and 5 (five) diphthongs.

i		u
e		o
	ə	
	a	

Table 1—Inventory of Vowels

The phonetic nature of the Uchai vowels is oral, but in some cases the nasal counterparts are also found only except /ə/. In the following we gave a description of the vowels—

Phoneme	Description
/i/	High front unrounded
/e/	High-mid front unrounded
/ə/	Mid central unrounded
/a/	Low central unrounded
/u/	High back rounded
/o/	High-mid back rounded

Table 2—Description of the Vowels

All the vowel phonemes do not occur in all three position only three phonemes i.e. /i/, /a/ and /u/ occur in all the three positions. Apart from this, /ə/ used only in the medial position. In case of /e/ and /o/ occur in the word medial and final position.

Phoneme	<i>Initial</i>	<i>Medial</i>	<i>Final</i>
/i/	✓	✓	✓
/e/	-	✓	✓
/ə/	-	✓	-
/a/	✓	✓	✓
/u/	✓	✓	✓
/o/	-	✓	✓

Table 3—Distribution of the Vowels

9.1.1 Diphthongs

Diphthongs refer to the glide of vowels from one pure vowel to another. Uchai has 5 diphthongs and they do not occur in all the three positions, mainly occur in the word medial and final position. Only exception with /ai/ which occur in the word initial position, and among the five diphthongs only /ai/ and /au/ shows the greater frequency in normal occurrence. Apart from /ai/, /ui/, /oi/, /au/ occur only in the word medial and final position and the presence of /ou/ is restricted only in the word medial position.

Diphthongs	<i>Initial</i>	<i>Medial</i>	<i>Final</i>
/ai/	✓	✓	✓
/ui/	-	✓	✓
/oi/	-	✓	✓
/au/	-	✓	✓
/ou/	-	✓	-

Table 4—Distribution of Diphthongs

9.2 Consonants

As Crystal (2000:83) quoted, ‘Phonetically consonants are sounds made by a closure or narrowing in the vocal tract so that the airflow is either completely blocked, or so restricted that audible friction is produced’. Consonant sounds are distributed based on place and manner of articulation, and from the voicing aspect, consonants are either voiced or voiceless. In the Uchai phoneme inventory, it permits 10 stops and 12 continuants, among the Stops we have voicing and aspiration contrast. Among the 12 continuants, 3 nasals, 3 fricatives, 2 affricates, 1 trill, 1 lateral and 2 approximants. The following chart is showing the place and manner of consonants—

Phoneme	Bilabial	Dental	Alveolar	Palatal	Velar	Glottal
Plosive	p b p ^h	t d t ^h			k g k ^h	ʔ
Affricate				č ĵ		
Fricative		s		š		H
Nasal	m	n			ŋ	
Trill			r			
Lateral			l			
Approximant	w			y		

Table 5—Phoneme Inventory of Consonant

The following chart gives the description of Consonantal phonemes

Phoneme	Description
/p/	Voiceless unaspirated bilabial stop
/b/	Voiced unaspirated bilabial stop
/t/	Voiceless unaspirated dental stop
/d/	Voiced unaspirated dental stop
/k/	Voiceless unaspirated velar stop

/g/	Voiced unaspirated velar stop
/ʔ/	Voiceless glottal stop
/p ^h /	Voiceless aspirated bilabial stop
/t ^h /	Voiceless aspirated dental stop
/k ^h /	Voiceless aspirated velar stop
/m/	Voiced bilabial nasal
/n/	Voiced dental nasal
/ŋ/	Voiced velar nasal
/t͡ʃ/	Voiceless palatal affricate
/d͡ʒ/	Voiced palatal affricate
/s/	Voiceless dental fricative
/ʃ/	Voiceless palatal fricative
/h/	Voiceless glottal fricative
/r/	Voiced alveolar trill
/l/	Voiced alveolar lateral
/w/	Voiced bilabial approximant
/y/	Voiced palatal approximant

Table 6—Description of Consonant Phonemes

Uchai is a Tibeto-Burman language under Bodo-Garo group, and majority of the consonant phonemes come in the word initial position but the exceptions are /ʔ/, /ŋ/¹ and /y/. One

¹ It violates the basic typological feature of Tibeto-Burman languages, as the presence of velar nasal /ŋ/ in all three position is considered to be the most

phoneme that has restricted occurrence is /y/, which only appear in the word medial position. Only three of the following phonemes occur in all the three positions i.e. velar stop /k/, bilabial nasal /m/, dental nasal /n/ and alveolar trill /r/. So, here we are enlisting the phonemes based on their position in word i.e. initial-medial-final.

Phoneme	<i>Initial</i>	<i>Medial</i>	<i>Final</i>
/p/	✓	✓	-
/b/	✓	✓	-
/t/	✓	✓	-
/d/	✓	✓	-
/k/	✓	✓	✓
/g/	✓	✓	-
/ʔ/	-	✓	✓
/p ^h /	✓	✓	-
/t ^h /	✓	✓	-
/k ^h /	✓	✓	-
/m/	✓	✓	✓
/n/	✓	✓	✓
/ŋ/	-	✓	✓
/č/	✓	✓	-
/j/	✓	✓	-
/s/	✓	✓	-
/š/	✓	✓	-
/h/	✓	✓	-
/r/	✓	✓	✓
/l/	✓	✓	-

striking feature of TB languages. It could be possible that through the passage of time and under the influence of neighboring languages the feature has lost.

/w/	✓	✓	–
/y/	–	✓	–

Table 7—Distribution of Consonantal Phonemes

10 Conclusion

The paper primarily giving a brief introduction of Uchai language and the people of the language as well as their habitat. Uchai/ Uchoi both are same as they are just two different names to describe the same tribe and language. It also gives an account on the Tribe, Occupation and Economy, Social Structure, Social and Religious Custom, Food Habit, Dress and Ornaments and lastly the Transition in Uchai Society. Though the total number of speakers of Uchai is very less, not even 1% of the total tribal population, so the language is on the verge of extinct. Unfortunately, so step has been taken from the Government to safeguard the language. Even the younger generation are moving towards Kokborok and Bangla for their betterment in career. From the linguistic point of view, documentation is needed because if a language died it cannot be restored in its previous form. Uchai have their own traditional culture, which is not followed in recent times, so the language is facing the all-round threat from its circumstances. Apart from this we have discussed in brief about the Phonology of the language, which is restricted only in the case of phoneme inventory and distribution of the phonemes.

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***idi:sing* and the Story of *dzambura*: A Mythological Perspective on Savara Paintings¹**

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ABSTRACT

Idi:sing, the sacred painting tradition of the Savara community, is highly influenced by the past, the myths, and the cosmogony as well as by oral stories and ritualistic practices. This research investigates the ethnolinguistic aspects of *idi:sing* through the legend of *dzambura*, a forgotten brother, whose story of struggle, endurance, and salvation is the main theme of the festival's being.

The study showcases the ways in which the Savaras utilize *idi:sing* to store the cultural memory, social values, and spiritual beliefs that are interconnected with art, oral tradition, and linguistic identity. Furthermore, it depicts the connection between the Savara community that has been established through art, oral tradition, and linguistic identity.

By examining the linguistic elements and the symbolic features of the *idi:sing* custom, this research turns to be a revelation of the junction of language, mythology, and visual storytelling in Savara culture.

Keywords: *Savara, Paintings, idi:sing, dzambura*

1 Introduction

The Savaras are an indigenous community of India that has maintained its cultural heritage mainly through oral traditions, rituals, and artistic expressions. Among these, *idi:sing* a type of holy mural, is the closest thing to the people's religious and social lives that can be found. The religious practice of the

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Savara is heavily influenced by their worship of ancestral spirits and it is also a means of presenting the myths, recorded history, and communal morals to the people. The paper looks at how *idi:sing* came about through the story of *ḍzambura*, a legendary person whose painful journey followed by prosperity eventually led to the emergence of this custom. Applying an ethnolinguistic framework, the study is geared at understanding the correlation between language, mythology, and art in *idi:sing* as well as their contribution to Savara worldview and collective memory.

The census in 2011 recorded the population of the Savara community to be 405,549, that was 0.03 percent of the total population of the country. The greatest number of people speaking Savara is found in Odisha (2,98,655), and the next two places with the highest number of speakers are Andhra Pradesh (1,39,424) and West Bengal (24,915). The speakers of the language have also been found in small respective numbers in different other states and union territories such as: Assam (5,900), Tripura (4,620), Arunachal Pradesh (243), Bihar (125), Jharkhand (94), Karnataka (62), Tamil Nadu (57), Maharashtra (54), and 20 other states and union territories where the number of speakers is less than 50.

According to the data from the Census of 2011, the population of the Savara community in Andhra Pradesh stands at 139,424 individuals, made up of 68,432 males and 70,992 females - the latter thus having the slight majority in the gender distribution. The gender distribution presented therefore indicates a fairly balanced ratio with females constituting around 51% of the population.

The Sauras and Their Panoramic Paintings is a study led by Dr. C.B. Patel, which explains the traditional wall art of the Savara (Saura) community from various perspectives- the aesthetic, the ritualistic, and the socio-cultural ones. The study gives prominence to the rites (*idi:sing*)-religious activities for which the murals have an important function, and which constitute the

central point in the leaders' liturgies and in their festive occasions. The images, illustrating the aspects of nature and of daily life, the rites of the ancestors and the gods, are not merely creative works but also a thematically indispensable part of the Savara faith tradition, in which they find their origin and their fulfilment.

M.D. Muthukumaraswamy's research, offers a storyline-based exploration of Saora art and its ties to oral traditions, folklore, and mythology. In his work, the author considers the fable of a man and a serpent to be the core that helps the reader grasp the metaphorical content of the Saora artworks.

Through this book, the authors give a vivid account of the community's past traditions, and customs by focusing on the religious aspects of the Savara people revealed in the art of the tribe. Extensive fieldwork experiences are used to back the study, which then becomes a reliable source on the fascinating intellectual and religious feats not only in the ethnographic study of the Indian Tribal people but also the Savara society that has been marginalized in the past.

Elwin describes the Middle Indian Tribal Art: A Personal Record comprises his observations about the artistic skill, the causes for producing these pieces, and their function in the rites of healing. His research further touches on the portrayal of gods, art's link to the rituals of death, and diverse methods of storytelling, such as boraisingi and karubai, illustrating the rich narrative traditions prevailing in Savara art.

1.1 Methodology

This study is based on ethnolinguistic fieldwork conducted among the Savara community, focusing on oral narratives, traditional art forms, and linguistic expressions embedded within *idi:sing*. The data for this research were collected through interviews, storytelling sessions, and visual documentation of *idi:sing* paintings murals in various Savara villages.

1.2 Informants and Data Collection

The research took place in the villages of Kindruwada, Mutyalu, and Gajulaguda that are well-known for their rich tradition of *idi:sing* paintings. These informants were chosen because of their cultural importance and the existence of murals depicting themes related to the *dzambura* legend.

Visual material for this research includes art photography of *idi:sing* done but photos taken during field visits. They took these photos after getting permission from artists and the community. Every mural was visually captured in the environment from which it was taken, together with the notes regarding the artistic features, and the symbolism of the elements, as well as the cultural relevance of the mural.

The *dzambura* story was told by Sri Savara Gundu of Gajulaguda village, Gummalakshmipuram and Sri Savara Kameswararao of Mutyalu village, Seeethampeta, government teachers provided the detailed narrative on the origin and the importance of *idi:sing*.

All narration sessions were documented after obtaining the consent of the narrators, employing a Sony Digital voice recorder and later, the recordings were transcribed for linguistic and ethnographic analysis. The Savara narration of the *dzambura* story was carefully translated and analysed ethnolinguistics features.

They adopted this approach to gain an in-depth understanding of the transmission, preservation, and adaptation of the *dzambura* story and *idi:sing* within the Savara community.

1.3 Research Gap

While various scholars like Dr. C.B.Patel, M.D. Muthukumaraswamy, Mukherjee and Rao, and Verrier Elwin have looked into *idi:sing* in the context of narrative traditions, their chief concern has been the portrayal of storytelling and folklore. These authors examine the themes, symbolism, and

artistic features but do not investigate the source and historical background of *idi:sing*. The current research intends to bridge that gap by not only delving into the core narrative of *idi:sing* but also assessing its metamorphosis over time. This study, by going beyond the narrative functions of *idi:sing*, explores the symbolic layers and the changing role of *idi:sing* in Savara ethnolinguistic and artistic practices.

1.4 Objective

This research aims to explore the mythological origins of *idi:sing* through the story of *dzambura* and analyse its ethnolinguistic significance. As a result, it traces the ancient roots of the *idi:sing*, the connection of the Savara identity with the *idi:sing*, and the cultural practices that have evolved from the past.

2 The Origin of *idi:sing*: The Sacred Paintings of the Savaras

2.1 Explanation of *idi:sing* as a Ritualistic Painting Tradition

Idi:sing is the painting of ritualistic and sacred themes that is the traditional art of the Savara people and deeply interconnected with their ancestral worship and spiritual beliefs. It is an artistic expression, but the art is also a spiritual medium that the Savara use to connect with their gone in the past, to ask for protection, and to co-exist with the invisible world that dwells among them. The art produced in *idi:sing*, foremost, *dzambura*, *ma:ra:ndzi* (peacocks), *ano:rrta:ŋ* (bull), and *o:ŋge:rim* (roosters) means the support of the ancestors in the community and their calling.

The custom of *idi:sing* is interwoven with oral history, mythology, and ritual performances. As per the belief of the Savara, *dzambura*, an ancestrally very significant figure, gave the instruction to his people that they should make these ritual paintings at their certain ceremonies to pay respect to the spirits. The works of art are the gifts to the ancestors thus they strengthen the idea of the spirits guiding and protecting the

living ones. Painting is done in a ceremonial manner and usually prayers, storytelling, and the offering of *ali:* (Liquor), *ano:rrta:ŋ* (bull), or *o:ŋge:rim* (roosters) accompany it.

The symbolic elements implemented in *idi:sing* have a very deep spiritual meaning behind them. The bull and rooster are the embodiments of the sacrificial offerings presented to the spirits to make them be at peace and ensure prosperity and protection. *ali:* (Liquor), another main offering, is given at the time of the ritual as a way of inviting the ancestral blessings. The Savaras are of the opinion that if they don't do the rituals they may be struck with drought, diseases, or their harvest will fail, which shows that they believe in both the anger and the kindness of the ancestors.

Besides the religious aspect, *idi:sing* is highly instrumental in the continuation of the Savara cultural identity. The ritual is handed over to the next generations through the elders narrating the stories of *dzambura* and other ancestors, thus securing the knowledge. The periodic performing of *idi:sing* is also a community gathering that strengthens the bonds between people, as it brings the families together in a joint act of worship, remembrance, and thanksgiving.

In fact, *idi:sing* is a ritualistic painting method that interlinks the past and the present, hence the Savaras get united with their ancestral spirits. By means of symbolic figures, ritual offerings, and storytelling, the festivity is a way of cultural continuity, spiritual protection, and a reaffirmation of the deep-rooted conviction of the presence of ancestor.

2.2 Connection between *idi:sing* and ancestral spirit worship.

The murals created during *idi:sing* serve as a symbolic representation of ancestors, embodying their presence through a rich tapestry of animals, human figures, daily activities, occupational scenes, and birds. All these visual devices are the invocation of ancestral spirits, thus securing their everlasting

connection with the living community. The act of painting those figures is not only art but a ritual offering, thus inviting the blessings of the ancestors.

The story of *dzambura* has the elements of exile, suffering, redemption, and spiritual transformation. Instead of teaching his brothers to paint his direct image, he told them to see his presence in all the forms that were drawn in *idi:sing* and thus, symbolically, he existed through these representations. This is in line with the animistic worldview of the Savara, in which ancestral spirits become natural elements and artistic expressions rather than getting direct iconographic worship.

Certain elements of the ritual have the most prominent roles in *idi:sing* and the typical Savara ancestral ceremonies. The most important of them are *ali:* (liquor), *ano:rta:ŋ* (bull), and *o:ŋge:rim* (roosters). At the time of *idi:sing*, *ali:* is the libation that is made to the spirits, which is a very common thing in the veneration of the Savara ancestors. The depiction of *ano:rta:ŋ* (bulls) and *o:ŋge:rim* (roosters) is the symbolism of the offerings that are the acts of remembrance and reverence and thus they also signify the presence of *dzambura* and his blessing in the community.

As per the Savara, the images that are painted are the mediator between the ones that are still alive and the ones that are in the spirit world. The act of painting is the ritualized way of communication with the ancestors by asking for their protection and guidance to the family and the village. The festival is also a way through which families can deep down their roots again with their heritage through storytelling, prayers, and ceremonial performances.

The saga of *dzambura* and the curse by the old man together with its eventual solution is, in a way, a mirror of the Savara belief in the wrath and blessings of the ancestors. Neglecting *idi:sing* means neglecting the ancestors too, and consequently, they might bring drought, misfortune, or illness. On the other

hand, it also shows that the most important thing in the world is honouring ancestors if one wants to be in their good grace.

The yearly performance of *idi:sing* provides the cultural knowledge of the past generation to the present one and it is in this way that the memory of the ancestors is kept alive and the identity and continuity of the Savara culture are maintained. To sum up, *idi:sing* is more than just a *a:du:r* (festival), it is a holy act of veneration of the ancestral spirits. These are the people who belonged to the Savara race; thus, through the medium of ritualistic art, oral traditions, and offerings, they were given the chance to honour their lineage, ask for blessings, and keep spiritual harmony.

3 The Story of *dzambura*: A Mythological Perspective

The picture below speaks of *dzambura* tale, which Savaras refer to as the source of the creation of *idi:sing* painting.



idi:sing 3-1: Story of *dzambura* (Image Courtesy Savara Kameswara Rao, Teacher)

3.1 Early Life and Separation

Once upon time, there were six brothers living in one roof of a Savara family. Among the six siblings, the youngest one, *dzambura*, was a little different and not physically fit for certain things, which made some tasks hard for him. He was smart but he couldn't cope with farming and housework.

While the elder brothers (*ka:ku:ndzi*) got married and started their own families, *dzambura* stayed single. Five elder brothers (*bona:n*) separated from *dzambura* after a long time. Each of them had a wife but he didn't have a partner. Though his sister-in-law (*bonni:n*) looked after him and made sure he had food and support, the rest of the sisters-in-law didn't like her doing that. Finally, she told him it was time to go, gave him a sack of grain and said take your life in your own hand.

3.2 *dzambura's Struggles and Mistreatment*

dzambura grew up with the love and care of his sister-in-law, the one he was very much devoted to. However, his brothers and wives considered him as their deadweight. They ridiculed his situation, did not provide him with good meals, and made him do domestic work.

When he was getting mature, his brothers started looking at him as a hurdle to their heritage. They didn't take the words of the eldest sister-in-law and were always plotting ways to drive him out of the house ignoring her pleas.

3.3 *Betrayal and Escape*

Brothers decided to murder *dzambura* in order to have their land one day, but the eldest sister-in-law, who knew about it, warned him secretly: "If you don't leave, your brothers will kill you."

Without any alternative, *dzambura* took off. His eldest sister-in-law, the only one who was really concerned about him, prepared a bundle consisting of seven varieties of grain and gave it to him. With a heavy heart, he embarked on an uncertain journey leaving behind not only the house which had sheltered him but also the family which had betrayed him.



3.4 The Meeting with the Mysterious Old Man

dzambura was wandering through the forest next to the village without knowing where to go. He got to the bottom of a hill by night, full of tears. He tried to climb beyond it while sobbing.

At the bottom of the hill, a man old enough to be his grandfather was making *ali*: (Liquor). He couldn't stand the sight of *dzambura* and so, he came up to him and asked, "Why the tears? Where are you coming from? Where are you going? Which village do you belong to? You are moving without noticing that I am here."

dzambura, full of grief, said, "Why village should I say? I have been through a lot. Will my suffering be less if I bring it up?" Then, he kept quiet.

The old man said, "It's not that you are obligated to talk. But at least have some *ali*: (Liquor) before you go."

dzambura consented and drank the *ali*: (liquor). Afterwards, they both kept on drinking and dancing, *dzambura* playing the *rana:dzan* (a stringed musical instrument) and the old man spinning a firestick (*anaan*).

After that, *dzambura* found the courage to tell his story, which he had kept in his chest. The old man, flabbergasted, shouted, "Oh no! Even after your suffering, your brothers want to kill you? They have been killing you slowly! I will be the one to make them suffer!"

The man with the fire put the burning firestick on *dzambura*'s village throwing and saying, "I'm throwing this upon your brothers' village. May it never get a single drop of rain! May their fields never grow crops! May that be their lot of drought and famine for the wrong they have done to you!"

Later on, the old man pointed to the other side of the hill with his finger. *dzambura*, full of new spirit, set off on his way again.



3.5 A New Beginning

dzambura went on with his wander, crossing another hill, and finally he came to a stream. Feeling his sorrow heavily, he sat by the water, crying and puzzling over his destiny.

A group of village girls came to fetch water from the stream. They saw *dzambura* lying in distress. Moved by his situation, they came to him, comforted him, and then took him to their village. One of the girls liked him so much that she said, "Why are you so miserable? Our home is simple, just me and my parents. They may be able to help cure your illness. Do not go anywhere, stay with us."

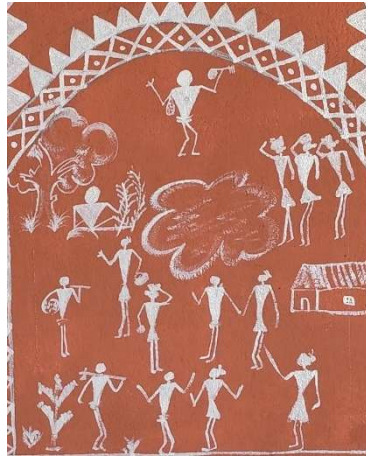
She took *dzambura* to her house where her parents, who were not only well, experienced but also skilled in treating ailments naturally, healed *dzambura* with herbs and medicines. Slowly, he got better. The girl's parents, seeing that she was of a marriageable age and having no son, in, law of their own,

suggested that she get married to their daughter, and *dzambura* live with them.

But *dzambura* was not so sure and he said, "You have saved me when I was down, and I consider you, my parents. Your daughter is like my sister. Moreover, you do not know my background; where I come from, or which clan I belong to. What if I have already got a wife?"

The family comforted him, "If that were the case, then we would have a problem. But you are the one who says that you are not married, so there is no problem. We don't care about caste, background, or anything else. We are not related to your brothers or ancestors, so there is no barrier. Our daughter has made her choice, and we see you as our son, in, law."

After so much arguing, *dzambura* finally made up his mind and married her. They shared their life and made it full of joy.



3.6 *dzambura's Prosperity and the Return of His Brothers*

With seven types of grain given to him by his eldest sister-in-law, *dzambura* started farming hard and sharing the fruits of his labour with the villagers. They, in turn, prospered from it. Eventually, he put up a big house, got cattle and goats, and lived

joyful with his wife and children. The people of his house grew rich, and they even did things like using grain husk to wash cooking utensils.

One day, while they were washing grain baskets in the river, pieces of husk floated down the water.

3.7 *The Brothers' Misfortune*

Meanwhile, as a result of the curse of the old man, a drought struck *dzambura's* brothers' village. Their crops dried up, and they had no food or water. They didn't know the cause of their misfortune at first, but later on, they had to leave their village. They became wanderers looking for food and work and having a hard time making a living.

On their arrival, not knowing *dzambura*, they asked him for work as he was the head of the village and successful. The brothers didn't recognize him but he, on the other hand, knew them instantly and decided to keep it a secret.

dzambura treated them like his own, gave them food, and told them, "Grain is yours to take as far as your hands allow. You may come back whenever you want if you need some more."

Speaking to his eldest brother, he said, "If you ever need more grain, bring your wife along next time."

3.8 *Fear and the Elder Sister-in-Law's Resolve*

The brothers got the grain and went away. They, however, kept being unlucky as the drought was still going on and their land was still without crops. At last, they found themselves without food again. But they were very unwilling to take the risk of bringing their elder brother's wife with them. A wealthy man, in their opinion, would be able to easily take a woman and in his village, they would have no way of resisting him."

But the eldest sister-in-law comforted them by saying, "What if he is going to take me, we can do nothing. However, if we do not go, death will come from hunger. Better taking a risk to see if we are able to get food."

3.9 The Revelation

The brothers dared to take the eldest sister-in-law with them and came back to *dzambura*'s village. Although they were scared, *dzambura* couldn't have been more different from them and he treated them as his own and even threw a feast to honour their visit.

After dinner, *dzambura* called his family together and confronted his brothers with the truth saying, "These are my brothers and she is my elder sister-in-law."

His brothers were as dumbfounded as could be. After that, *dzambura* pointed at the elder sister-in-law and said, "I am *dzambura*."

They were utterly surprised. They did not expect him to be alive if not wealthy. Feeling guilty for how they treated him, they bowed their heads low. It was not the case that *dzambura* was angry, though. Instead of anger, he put the blame on his elder sister-in-law and said, "The reason for this is you. Besides, you were the one who gave me both your blessings and the grains necessary for my survival. I owe it to you that I have everything now. Do take anything you want and be sure of it, that you will stay happy." He then told his brothers to feel free to come back when they want to get some grain or to work.

3.10 Lifting the Curse

After thinking about the hard times, *dzambura* understood that an old man's curse was the reason for their troubles. To save his brothers he went to the old man and among many things, he begged him to remove the curse.

The old man was in shock. "Did I really bring that much disaster with my words?" he wondered. Then after thinking it over, he said "Okay then. Let their fields be fertile again."

The curse was removed. The village of *dzambura*'s brothers, which was slowly dying, started to rejuvenate. The rain came and the land got fertile again.

His brothers being very thankful, they invited *dzambura* to come with them to the village's celebrations, the family reunion at last.



3.11 The Birth of the *idi:sing* Festival

But *dzambura* refused, saying, “I will not return. You tried to kill me once. How can I go back?”

Instead, he told them, “During festivals, draw a bull and call it ‘*dzambura*’s Bull.’ Paint a rooster beside it and name it ‘*dzambura*’s Rooster.’ Depict the act of making *ali*: (liquor) and call it ‘*dzambura*’s liquor.’ If you do this, it will be as if I am there with you.”

From that time onward, as part of their ancestral rituals, the Savara people began the practice of *idi:sing*, believing that these paintings would bring prosperity to their land.

Thus, the tradition of *idi:sing* was born, a sacred custom that continues to this day.

3.12 Importance of the Story

This story conveys the values that the Savara people hold tightly, culturally and morally, to their chest. It tells not only what versions of the truth are important for the tribe, but also what happens to one if they live these versions or not. Kindness, resilience, and gratitude were the things that led *dzambura*: to wealth and a happy life, whereas betrayal and cruelty caused the

ruins of the brothers. After the abandonment of the brothers' *dzambura*: still manages to thrive, while his brothers die miserably.

One of the important points of the story is the influence of the language that powerfully comes through the representation of the old man's curse, which ever since then haunts *dzambura*'s brothers. It informs about a bigger concept behind the Savara oral tradition where speech, blessings, and curses are the most potent tools that determine the world around them. The story reaffirms the idea that misfortunes are at times bearable and can even be overturned, this moment in the text echoes the position of speech acts in the narrative repertoire of the Savara.

Wise gratitude in the bonding *dzambura*, and sister-in-law relationship is one of the major issues discussed in the story. In the end, he acknowledges her past help to him and gives her a part of what he has; this is the way to present the ideology of the Savara people who believe that giving, and, taking and mutual respect form the cornerstones of harmony among the kinship networks. Originally the brothers were afraid that as a rich man, *dzambura* would trick their elder sister-in-law though, conversely, the brothers' anxiety about the community's power hinging in a few people mirrored the past. But far from it, *dzambura* proves such notions wrong by showing that he has unwavering fidelity to his family and that he is trustworthy and respectful.

Moreover, the narrative functions as an ancestral account for the *idi:sing* painting practice that unfolds during diverse festivities where the spirits of the ancestors are summoned upon for help and guidance. The *idi:sing* matter is of great ethnolinguistic value as it serves as a communication medium that conveys the cultural norms and practices through picturesque illustrations. The figures used in the paintings, animals, spirits, and mythological characters, are not merely decorative but are there to serve as the foundation of the Savara cosmology, spirituality, and social values.

4 Conclusion

This research highlights the complex interaction between mythology, artistic expression, and linguistic identity of the Savara people.

Storytelling in the Savara language is not only a medium of giving life to moral teachings through tales but also a medium of preserving historical memory and thus it is considered the treasure house of the past. At the same time, *idi:sing* artworks serve as a kind of continuation of oral tradition where visual stories are used to share the content of the immemorial with future generations. The themes of the images like the figures of ancestor spirits and the depiction of rituals are not only signs but reflect a well, developed semiotic system deeply ingrained in the savara culture.

The ethnolinguistic aspect of this ritual is very prominent: stories such as that of *dzambura* not only offer linguistic vehicles for collective identity but also the use of speech in ritual (for example, blessings, curses, and invocations) demonstrate the cultural view of language as an instrument which can bring about changes in the real world. This revelation uncovers the aspect of speech as a performance factor in the language of indigenous traditions which is often underestimated. Spoken words are, along with being a means of communication, a very influential tool for bringing about change.

Moreover, it is very important to first record and then revitalize such indigenous ways and means as *idi:sing* that lie behind cultural and linguistic diversity if one wants to uphold them against modern times. On the other hand, the spread of the dominant languages and the socio, economic changes are the main reasons for the gradual disappearance of such practices. However, measures taken towards digital recording, community, driven revival, and scholarly investigation may have a positive effect on the sustainability of these traditions. Understanding the importance of *idi:sing* as a language and art

bank can lead to the formation of policies that maintain indigenous knowledge systems and prevent the loss of culture.

Subsequent work should emphasize the comparative examination of the visual and linguistic aspects of the *idi:sigg*, delving into its significance in the identity construction of the youth as well as its fruition in the modern art realm. Besides that, a study of linguistic variations among the Savara, speaking communities that gives rise to different mythological narratives can uncover historical language change and cultural exchanges. By bridging language, art, and ethnography perspectives, forthcoming research can open up a wider view of indigenous heritage and its continuous holding in a world that is changing fast.

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AI Integration in Indian Education: Aligning with NEP 2020

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ABSTRACT

The National Education Policy 2020 (NEP 2020) in India seeks to transform the education system by incorporating technology and fostering innovation. Using artificial intelligence (AI) in teaching, learning, and administration is a key part of this vision. This will help create an educational environment that is open to everyone, based on competencies, and works well. This study offers an in-depth examination of India's progress in the integration of artificial intelligence in education, emphasising National Education Policy 2020. The text adopts a systematic methodology, commencing with an overview of NEP 2020's aims concerning technology and multilingual education. The methodology section delineates the analytical framework by utilising policy papers, scholarly reports, and case studies. The results describe many NEP 2020 projects and policies, such as AI-enhanced lessons, programs to train teachers, and AI tools that make it easier to teach in multiple languages and make content in Indian languages. The discourse rigorously analyses the ramifications of these AI integrations, emphasising opportunities like personalised learning, enhanced language accessibility, and administrative efficiency alongside challenges such as infrastructure deficiencies, the digital divide, data privacy issues, and the necessity for educator capacity building. The study concludes that, despite substantial advancements in integrating AI technologies within India's education sector, ongoing efforts are essential to tackle obstacles and guarantee equitable, effective utilisation of AI in education.

Keywords: *Artificial Intelligence, National Education Policy-2020, NLP Tools, Applications, Challenges, Infrastructure, Integration, Learner and Teacher Training.*

1 Introduction

The National Education Policy 2020 (NEP 2020) represents a major reform of the education system in India, introduced after a gap of 34 years. The NEP 2020 presents an extensive

framework aimed at rendering education more comprehensive, skill-focused, and responsive to the demands of the 21st century. A major focus of this policy is the integration of technology across all educational levels, with particular emphasis on emerging technologies like artificial intelligence (AI). (Abash Parida, February 7, 2024) The NEP openly acknowledges that significant advancements in machine learning and AI are swiftly transforming the global knowledge environment and job economy. It warns that many traditional jobs could be automated, making it even more important to have workers with skills in data science, computer science, artificial intelligence, and other fields as well as cross-disciplinary skills. In light of this evolving environment, NEP 2020 promotes a transition in education towards instructing individuals on learning methodologies and managing emerging issues, particularly those presented by AI and automation. Under the NEP 2020 framework, technology and AI are regarded as facilitators for attaining inclusive and high-quality education. The strategy mandates the "extensive integration of technology in education" to eliminate linguistic barriers, enhance accessibility for differently abled children (Divyang), and optimise educational planning and management. NEP 2020 says that the introduction of AI and technologies like 3D/7D virtual reality will drastically change the education sector. It urges India to be ready to quickly deal with these changes. The NEP 2020 was created at a time when AI's strengths, especially in predictive analytics, were becoming clear. The policy stresses that educational authorities and institutions should use AI as a resource instead of avoiding it.

The policy's aim for technological integration is extensive, encompassing fundamental digital infrastructure and the application of AI to individualised learning. The National Educational Policy 2020 advocates for the creation of the National Educational Technology Forum (NETF) to facilitate the open exchange of ideas regarding the application of technology, particularly artificial intelligence, to improve

learning, assessment, and administration. It emphasises the significance of multilingual education and cultural preservation, indicating that technology can facilitate the widespread delivery of education in several Indian languages. The policy frames AI as a tool to equalise and enhance education—via adaptive learning systems, translation tools, virtual laboratories, and additional resources—while emphasising ethical usage and data privacy (Ministry of Education, 2020). Learning analytics powered by artificial intelligence can assess the extensive data produced by students as they engage with digital learning tools and platforms. This analysis helps educators understand students' advancement, learning habits, and difficulties, enabling them to make data-driven decisions regarding interventions and teaching strategies (Baker, Corbett, & Aleven, 2008). It assists educators in identifying deficiencies in their instruction and providing targeted interventions designed to enhance student performance.

In this context, India has commenced many initiatives to incorporate AI into the educational sector in accordance with NEP 2020. These projects include putting AI into school curricula and using AI to make learning materials in local languages. The motivation is both educational and financial. This article analyses the progress of India's integration of artificial intelligence in education after the National Education Policy 2020. It describes the policies and efforts that were put in place, looks at how AI technologies affect multilingual education (which is one of the main goals of NEP 2020), and talks about the problems and opportunities that have come up. It uses governmental documents, academic and business publications, and case studies to deliver a thoroughly researched analysis of the advancements and potential of AI in the Indian education sector.

2 Research Methodology

The document entitled “AI Integration in Indian Education: Aligning with NEP 2020” employs a qualitative research

methodology, emphasising policy analysis and literature evaluation to examine India's progress. The methodology is made up of several parts. Policy documents and official reports were read in detail, with a focus on the NEP 2020 and related government publications. This report outlines fundamental instructions and proposed reforms for technology utilisation, which were examined to pinpoint particular references to AI, digital education initiatives, and multilingual learning methodologies. The principal provisions of NEP 2020, such as the establishment of the National Educational Technology Forum and the promotion of AI in education, were analysed to determine the policy's objectives. Further, official press releases and announcements were examined to ascertain the implementation status of the proposals outlined in NEP 2020. A significant source was the Press Information Bureau announcement regarding the incorporation of AI as a subject in educational institutions and related initiatives by organisations such as CBSE and AICTE.

Additionally, extra material from news items and the data collected from these sources underwent thematic analysis. These themes go along with the main points of this article: (1) how AI is being used in educational policy (strategies, curricula, and forums set up under NEP 2020); (2) how AI affects multilingual education and the processing of Indian languages; and (3) the main problems and opportunities in using AI in Indian education. The study achieves comprehensive knowledge by synthesising information from policy papers, academic studies, and practical instances. This way of looking at things makes it easier to get a full picture of how NEP 2020's goal for AI integration is being carried out and what that means for the future of education in India.

3 Discussion and analysis

3.1 Initiatives for AI Integration under NEP 2020

Following the release of NEP 2020, India has initiated several programs to incorporate AI into the educational framework, in

accordance with the policy's directives. The proposed establishment of the National Educational Technology Forum (NETF) represents a substantial policy initiative. According to NEP 2020, NETF is designed as a platform to promote the exchange of ideas regarding the use of technology to improve learning, assessment, and administration in both school and higher education. The NETF's job is to give government agencies evidence-based advice on how to use technology to help people, to improve educational technology in institutions, to come up with strategic initiatives (such as using AI and machine learning), and to lead research and innovation in this area. This signifies a methodical strategy for assessing and integrating AI tools—essentially a policy think tank to ensure the education system remains aligned with rapidly evolving technological trends.

One of the initial implementations of AI integration occurred within the school curriculum. The Central Board of Secondary Education (CBSE), the leading national school board in India, introduced artificial intelligence as an optional subject for students in 2019, a move that was further supported by the National Education Policy (NEP) 2020's focus on contemporary skills. The Ministry of Education said that AI was formally incorporated as a skill topic in class IX beginning with the 2019-20 academic session, thus integrating it into the official school curriculum. In the subsequent year, CBSE broadened this initiative, making AI courses accessible in classes VIII, IX, X, and XI across numerous CBSE-affiliated institutions. To design the curriculum and instructional materials for this new subject, CBSE partnered with technology firms and specialists, including prominent industry leaders such as Intel, IBM, and Microsoft, along with esteemed private educational institutions. This cooperation facilitated the development of pertinent curriculum and materials (textbooks, exercises, and projects) that familiarise children with AI principles at an age-appropriate level. Additionally, capacity-building followed the curricular modification: by 2020, 41 training sessions on AI had been

executed for educators and school administrators, equipping around 1,690 individuals to instruct and oversee the new AI curriculum. This investment in teacher training acknowledges that the integration of AI in education involves not only students acquiring new knowledge but also educators cultivating the confidence and proficiency to enable AI-enhanced learning.

In addition to schools, higher education and technical education institutions have already begun to include AI in accordance with NEP 2020. The National Educational Alliance for Technology (NEAT) was created by the All-India Council for Technical Education (AICTE), which is in charge of technical and professional programs. Its goal is to improve EdTech solutions such as AI-driven adaptive learning systems. Influenced by the NEP, the AICTE has sanctioned AI and data science as new disciplines or specialisations in engineering curricula at several institutions. According to a report from the Press Information Bureau in 2020, Numerous Indian Institutes of Technology (IITs) and Indian Institutes of Information Technology (IIITs) are currently providing specialised courses in artificial intelligence and machine learning, while universities have commenced the introduction of Ph.D. and master's programs in fundamental AI disciplines, as advocated by National Education Policy 2020. This fits with the NEP 2020's suggestion that universities offer advanced "AI + X" courses, which are cross-disciplinary programs that combine AI with fields like law, healthcare, and agriculture, to train a new generation of AI experts.

A crucial undertaking is the emphasis on educator training and capacity enhancement in emerging technologies. The NEP 2020 underscores the importance of ongoing professional development for educators, encompassing training in technological applications. Consequently, AICTE and the Ministry of Education have implemented various Faculty Development Programs (FDPs) in key domains, including AI. By 2020, AICTE has conducted around 250 Faculty Development Programs in partnership with industry and

esteemed institutions, including numerous sessions focused on AI and associated technologies. Notably, certain training sessions were accessible not only to higher education faculty but also to school teachers (in collaboration with CBSE), promoting the exchange of knowledge and assisting school educators in enhancing their skills in AI. This extensive effort to improve teachers' skills is necessary so that they can effectively use AI technologies in their lessons and fully grasp both the pros and cons of AI in a school setting. India's policy framework ties AI in education with overarching innovation and research objectives. The NEP 2020 resulted in the creation of a National Research Foundation (NRF) to advance research, particularly in artificial intelligence. It is expected that the NRF will fund and organise advanced research in AI and its educational uses, encouraging local innovation such as AI algorithms that are specifically made for Indian languages or schools with limited resources. The Ministry of Education's Innovation Cell and more than 1,600 Innovation Councils in higher education institutions have been activated to promote student and faculty initiatives in new technology. As a result of all of these efforts, India's educational system is gradually becoming more AI-based, including the planning of lessons, research projects, everyday teaching tools, and management software. This is all part of NEP 2020.

3.2 AI in Inclusive and Multilingual Education

A notable aspect of NEP 2020 is its robust dedication to multilingual education and the use of India's many languages in the teaching and learning process. The policy stipulates that, wherever feasible, the medium of instruction up to at least Grade 5 (and ideally until Grade 8) should be the child's mother tongue or home language. The emphasis on mother tongue education is based on studies indicating that children acquire knowledge more effectively in their home language, and it also pertains to issues of equality and cultural preservation. Implementing multilingual education in a nation with 22 official languages and several indigenous tongues is a significant difficulty. In this

context, AI and language technology have become essential instruments for connecting the ambitious linguistic agenda with effective content delivery. NEP 2020 expressly states that technology may assist in "eliminating language barriers" in education. This goal is being pursued via AI-driven translation and content generation. Government entities and educational institutions are using Natural Language Processing (NLP) and machine translation artificial intelligence to produce and translate educational materials into several Indian languages. Furthermore, NEP 2020 strongly supports linking language education programs with advances in natural language processing. It says that teaching languages in schools would be closely linked to improving NLP for India's diverse range of languages. This policy directive has resulted in efforts such as the National Language Translation Mission (NLTM), referred to as Project "Bhashini," which seeks to create advanced AI-driven translation systems to provide high-quality material in all major Indian languages. Artificial intelligence facilitates the efficient translation or transliteration of extensive texts (textbooks, reference materials, and government resources), allowing students and educators to access content in their own language.

An exemplary instance of AI enhancing multilingual education is the creation of Anuvadini, a government-supported AI translation application. In early 2024, the Ministry of Education mandated that all national educational institutions and regulatory bodies (including UGC, AICTE, NCERT, NIOS, IITs, and central universities) provide study materials in Indian languages within a three-year timeframe. To accomplish this, extensive translation initiatives are in progress using technologies such as the Anuvadini app, which uses AI to translate both text and voice across several languages. This AI engine facilitates translation in over 22 Indian languages, catering to India's linguistic diversity. These platforms translate engineering, medical, legal, and other higher education texts from English into Indian languages.

Besides translation, AI is facilitating adaptable multilingual experiences. For instance, AI-driven educational software may autonomously adjust the language of teaching according to student desire or provide real-time subtitles and voice-overs in another language. Voice recognition and voice synthesis in Indian languages, a byproduct of AI research, enable students to engage with educational platforms in their native language—learners may pose enquiries in Tamil or Hindi and get AI-generated responses or explanations in the same language. These technologies are essential for inclusion, since a substantial segment of India's population lacks proficiency in English, the historically predominant language for high-quality educational material. By democratising access to information across languages, AI aids in fulfilling NEP's goal: no child's educational outcomes should be compromised due to a lack of resources in their native language.

The influence of AI technologies on multilingual education in India has been significant. These technologies are expediting the development of a genuinely multilingual curricular environment, enabling a student in a rural region to study science in Bengali or Tamil with the same depth of material as an English-medium student in an urban setting. By providing translated lesson plans and resources, they reduce the burden on educators, allowing them to further customise them. Nonetheless, the implementation is in progress, and issues such as maintaining translation accuracy and cultural relevance persist (they will be addressed thereafter). The direction established by NEP 2020, facilitated by AI, suggests a future in which Indian language processing technology is pivotal in education and enhances accessibility and inclusivity in learning.

3.3 Effects of AI on education, learning processes, and administrative functions

The incorporation of AI into India's education sector is producing significant transformations in pedagogical approaches, student learning experiences, and educational

management. The emergence of personalised and adaptive learning is one of the most profound consequences. AI-driven systems are enhancing conventional uniform teaching by customising educational material to meet individual student requirements. The NEP 2020 prioritises personalised advancement, allowing each student to study according to their speed and manner, which is being facilitated by adaptive learning software. These AI-driven systems evaluate a student's performance in real time and modify the complexity or style of material appropriately. According to a commentary, “artificial intelligence is anticipated to become a potent instrument in creating a customised learning system” that addresses each student's strengths and shortcomings. For instance, if a student has difficulties with a certain mathematical subject, an AI tutor may discern the issue from the student's replies and provide further explanations or practice problems centred on that idea. If a pupil demonstrates ability, the AI may provide enrichment materials to maintain their challenge. Indian edtech firms and international corporations have used AI-driven personalised learning applications in schools and for home education, in accordance with the NEP's objective of transitioning from rote learning to competency-based advancement. AI technology is revolutionising teacher assistance and professional development. AI enhances educators' resources and insights, not replaces them. The NEP 2020 places educators at the core of the learning process, while AI alleviates some regular tasks, enabling them to concentrate on teaching and mentorship. AI-driven systems may do duties like grading assignments, creating examination papers, and monitoring attendance, which typically require significant effort from educators. Automated grading has undergone prototype implementations, allowing AI to assess essays and short responses for certain attributes, while objective exams may be scored instantaneously, enabling educators to focus more on interactive instruction. This automation aligns with NEP's objective to reduce instructors' non-teaching responsibilities, thereby enhancing the teaching

and learning experience. Moreover, AI-powered analytics provide educators with an enhanced understanding of student learning behaviours. An AI system, via the analysis of assessment data, may notify a teacher that an entire class is deficient in a certain subtopic, hence necessitating a review session. Similarly, AI analytics may identify whether a certain student is persistently underperforming in a specific topic, facilitating timely intervention. Data-driven insights enhance the responsiveness and specificity of education.

AI is being used for the professional development and competence enhancement of educators. Virtual teaching assistants and recommender systems may propose innovative educational solutions to educators. An AI platform may discern that a teacher's pupils prefer visual learning and then suggest the incorporation of more films or diagrams for certain subjects, supported by content libraries. Size has hindered ongoing professional development in India, but AI can offer educators on-demand training programs. According to a study, AI-powered tools like IBM's Teacher Advisor and other educational AI platforms "offer insights into teaching methodologies, suggest enhancements, and provide resources to keep educators up to date on the latest pedagogical practices." Consequently, each educator might own a digital coach driven by AI, adhering to optimal practices and research, which is particularly advantageous in distant regions where instructors may have limited access to educational workshops or mentoring.

AI is enhancing the educational experience for students by making it more intriguing and interactive. NEP 2020 emphasises immersive and inquiry-based learning, with AI facilitating this via technologies such as educational virtual reality (VR) and augmented reality (AR). AI facilitates the creation of intelligent virtual environments, enabling students to conduct scientific experiments in a virtual laboratory or go on virtual field trips to historical sites, with the system reacting to their activities. These immersive educational experiences

animate abstract ideas and enhance the enjoyment of learning, matching well with the NEP's directive to transition beyond solely textbook-based teaching. Although these technologies are still in their nascent stages in India, some schools have begun trials using AR/VR equipment, often provided via corporate social responsibility programs or government innovation funding. AI algorithms improve these experiences via personalisation—such as modifying the simulation intensity according to a student's advancement or translating on-screen instructions into the student's chosen language instantaneously.

The influence of AI also encompasses assessment and examination systems. Higher education entrance examinations and some school assessments are increasingly using AI-driven remote proctoring systems. These instruments use face recognition and eye-gaze monitoring to verify the identities of test-takers and to identify dubious behaviours during online assessments. During the COVID-19 epidemic, Indian colleges used AI proctoring systems, such as ProctorU and Honorlock, to provide safe remote exams. These technologies may identify if a student is potentially seeking off-screen answers or if an unfamiliar individual enters the frame, therefore preserving integrity in high-stakes examinations. Likewise, AI may assist in generating question banks and automatically grading certain sorts of examination questions. Experimental AI graders can initially score subjective responses, which human examiners then evaluate, thereby reducing their workload. This kind of AI-aided assessment aligns with the NEP's goal of making assessments more competency-oriented and less onerous. The approach also facilitates the implementation of more frequent low-stakes exams that inform learning, since AI can manage the logistics of ongoing evaluations.

AI optimises educational administration. School administrators are using AI-driven tools to optimise timetables, predict patterns in student enrolment, and manage logistics. The "technology-based comprehensive teacher requirement planning" system proposed by NEP might use AI to predict teacher shortages

across many disciplines by examining data such as enrolment trends and retirement timelines. Certain state education administrations have begun the use of AI analytics to pinpoint schools anticipated to have an increase in enrolments, necessitating more instructors or classrooms. Universities are using AI chatbots at the higher education level to manage regular student enquiries related to admissions and homework, therefore enhancing the efficiency of administrative assistance. All these tools enhance an education system that is more efficient and data-driven.

The integration of AI in Indian education—including smart classrooms and administrative functions—is progressively revolutionising the industry. Students get more personalised attention and assistance via adaptive learning systems; educators benefit from intelligent technologies that alleviate monotonous tasks and augment their instructional resources, and administrators acquire predictive analytics for improved decision-making. These advancements illustrate AI's capacity to enhance educational quality and are closely aligned with the transformative ethos of NEP 2020. The policies and efforts established are therefore yielding measurable improvements in the delivery and experience of education across India. The next part will explore the wider ramifications of these changes, addressing the problems that must be navigated and the possibilities that may be capitalised upon as India progresses down this trajectory.

The incorporation of AI in India's education sector, propelled by NEP 2020, offers substantial benefits with considerable hurdles. The results show big improvements in how policies are put into place and how AI technologies are used. However, it is still important to think carefully about the problems that come with this change and the possible benefits that can be gained. Establish mechanisms for continuous evaluation and assessment of AI integration in education. This includes looking at how AI affects student learning, how well AI-driven interventions work, and getting feedback from teachers, students, and other

stakeholders to keep making things better (Blikstein et al., 2020). By following these suggestions and strategies, those involved may be able to increase the benefits of using AI in education while lowering the problems that come with it.

4 Challenges in NLP for Indian languages and AI integration

4.1 Linguistic Heterogeneity

Every Indian language has a distinct script, phonetic framework, grammatical rules, and syntactical differences. Some languages, such as Hindi and Urdu, exhibit similarities; others, like Telugu, Tamil, and Bengali, diverge markedly, challenging the construction of NLP models.

4.2 Limited Tagged Data

In contrast to English, Indian languages are deficient in extensive gloss corpora, thereby constraining the training and optimisation of AI models.

4.3 Utilisation of Code-Mixing

Indian users often amalgamate languages, such as Hindi and English (Hinglish), rendering conventional NLP models less efficacious.

4.4 Morphological Complexities

Many Indian languages exhibit complex morphology, where words undergo extensive inflectional changes based on tense, gender, and grammatical case.

4.5 Minimal Digital Exposure

Digital content in Indian languages remains low compared to English, limiting data availability for AI training.

4.6 AI-Powered NLP Tools for Indian Languages

4.6.1 Indian Languages: Google's BERT and mBERT

Multiple Indian languages are supported by Google's Bidirectional Encoder Representations from Transformers

(BERT) and Multilingual BERT (mBERT), which enhance tasks like text categorisation and named entity recognition (NER).

4.6.2 IndicNLP

IndicNLP, created by AI4Bharat, offers pre-trained word embedding and natural language processing (NLP) tools for text processing, tokenisation, and transliteration.

4.6.3 Indian NLP Toolkit

An open-source package called iNLTK provides pre-trained models for sentiment analysis, text creation, and other NLP tasks in Indian languages.

4.6.4 Samanantar

Samanantar, created by AI4Bharat, is the biggest publicly accessible parallel corpus for machine translation in India, including 11 Indian languages.

4.6.5 Anuvaad

Anuvaad is an open-source neural machine translation tool that employs deep learning techniques for translating between English and various Indian languages.

4.6.6 IndicTrans

IndicTrans is an advanced NLP model developed for machine translation among various Indian languages that utilises transformer-based architectures to enhance accuracy.

4.6.7 EkStep NLP Platform

The EkStep Foundation creates NLP tools that emphasise speech recognition and text processing while supporting educational applications.

4.6.8 Microsoft Indian Language AI

Microsoft offers natural language processing models for Indian languages, encompassing speech-to-text and machine translation, which are integrated with Azure Cognitive Services.

4.6.9 Facebook AI's XLM-R

Facebook AI's XLM-R, a RoBERTa-based cross-lingual language model, enhances support for Indian languages and advances multilingual natural language processing applications.

4.6.10 IBM India's Spoken Web

IBM India's Spoken Web is a speech-based natural language processing system tailored for rural populations that depend on voice-based interactions.

5 Applications of NLP tools in Indian languages

5.1 Machine Translation

NLP tools, including Google Translate, Anuvaad, and Samanantar, facilitate real-time translation between Indian languages and English.

5.2 Speech Recognition: Text-to-Speech (TTS) and Optical Character Recognition (OCR)

Speech recognition tools powered by AI enable applications such as voice assistants (e.g., Google Assistant and Alexa) and automation in call centres for Indian languages. Text-to-speech (TTS) systems facilitate the conversion of written text into spoken language, benefiting users with visual impairments. Optical character recognition (OCR) technology enables the digitisation of printed materials in various Indian languages.

5.3 Sentiment Analysis

Organisations employ sentiment analysis to evaluate public opinions expressed on social media and in product reviews across regional languages.

5.4 Chatbots and Virtual Assistants

Organisations deploy AI-powered chatbots for customer service and accessibility in Indian languages.

6 NEP 2020: Implementation

AI-driven natural language processing tools are essential for the execution of the National Education Policy (NEP) 2020. NLP facilitates multilingual education by enabling:

- a. Automated content translation involves the conversion of study materials into various Indian languages.
- b. AI-driven tools provide personalised learning by accommodating students' linguistic preferences.
- c. Voice-assisted learning Utilises NLP-based speech recognition to support students experiencing reading difficulties.
- d. Digital learning platforms utilising AI enhance the accessibility of educational content for vernacular speakers.

6.1 Healthcare and Telemedicine

NLP tools enhance communication between doctors and patients in regional languages, thereby improving healthcare accessibility.

7 The accuracy of AI tools for Indian languages

The evaluation of accuracy in Indian language NLP tools is complicated by the scarcity of benchmark datasets and the linguistic diversity present. We assess tools like Google Translate and IndicTrans using BLEU and ROUGE scores, yet translations in low-resource languages still exhibit inaccuracies. Word Error Rate (WER) serves as an essential metric for evaluating speech recognition systems such as Microsoft Indian Language AI and Google Assistant, particularly in the context of dialectal variations that influence performance. Sentiment analysis models, including those implemented in iNLTK, are

assessed using F1 scores. Context-dependent sentiment variations in Indian languages present significant challenges. Models for Named Entity Recognition (NER) and Part-of-Speech (POS) tagging in Indian languages encounter challenges stemming from inflectional complexity and code-mixing.

8 Digital gap and infrastructure differences

The digital gap and infrastructure differences represent significant challenges. The education system in India is extensive and diverse, with many institutions lacking the necessary technological infrastructure to implement advanced AI-based tools. Numerous schools, particularly in rural or economically disadvantaged regions, continue to face challenges regarding fundamental requirements such as electricity, internet access, and hardware (computers or smart devices for both students and educators). A UNESCO report on artificial intelligence in Indian education emphasised that a "lack of resources and infrastructure" substantially impacts the growth of AI in this sector. Socio-economic disparities result in students from affluent backgrounds or urban areas having significantly greater access to digital resources than those from marginalised communities. The report indicates that a student in the top 20% of society has a significantly higher likelihood of attending an English-medium, well-resourced school, which includes access to technology, compared to a student in the bottom 20%. This disparity is compounded by additional divides—caste, class, and gender—that can intensify inequalities. The literacy and school completion rates for females in India are lower than those for males. Without targeted intervention, adding AI may make these problems worse, especially if girls don't have as much access to devices at home, which would mean that AI-based learning apps wouldn't help them as much. To close the digital divide, a lot of money needs to be spent on infrastructure, like the NEP's plan for a public digital infrastructure. There also needs to be targeted support to make sure that underserved areas and groups don't get

left out as technology becomes more important in education. (Anjali Raja K, 2022)

A further challenge pertains to the preparation and training of teachers for AI-driven education; a substantial upgrade in skills is required. The need to upgrade the skills required is substantial. India's educational institutions employ millions of teachers, many of whom possess limited experience with educational technology, particularly artificial intelligence. Some educators exhibit resistance or anxiety towards AI, fearing that automation may diminish their role or that they may struggle to master the new tools. The successful integration of AI necessitates that educators acquire proficiency in AI platforms and reconfigure their pedagogical strategies to align with AI functionalities, such as utilising AI-generated insights to develop personalised instruction plans. Continuous professional development and support networks are essential for teachers to exchange best practices and engage in collaborative learning. Insufficient training may result in well-intended AI interventions failing to produce desired outcomes in educational settings or being misapplied. The challenge is acknowledged at the policy level, as NEP 2020 emphasised the need for training incentives and highlighted the significance of teachers as proficient digital content creators and facilitators. Translating these ideas into action is an ongoing process that necessitates continuous effort and resources.

Finally, a frequently neglected challenge is the necessity of preserving the human element in education. As AI automates and enhances various processes, it is essential to recognise that education is a fundamental human activity focused on mentorship, social interaction, and emotional support. Excessive dependence on AI or perceiving it as a universal solution may result in a mechanistic approach to learning. The ethos of NEP 2020 is fundamentally humanistic, emphasising values, ethics, and holistic development. Therefore, it is essential to establish an appropriate equilibrium in which AI serves as a tool under the direction of educators rather than

substituting it for human interaction. All AI deployments must be pedagogically justified and monitored for their effects on student well-being and engagement. For AI to help education reach its overall goals for growth, it needs to be constantly researched and have ways for people to give feedback.

This article examines the AI tools available for NLP in Indian languages, their applications, accuracy, the challenges faced in their development and deployment, and their role in the National Education Policy (NEP) 2020.

9 Prospects and Future Directions

The integration of AI in Indian education presents transformative opportunities that align with the objectives of NEP 2020, despite existing challenges. Effective strategies in addressing challenges can significantly enhance educational quality and equity in India. AI has the potential to enhance learning outcomes through personalisation. AI can enhance educational outcomes by customising instruction to meet individual student needs, enabling all learners to master foundational concepts at their pace. This approach is particularly advantageous in India, where classrooms typically encompass a diverse range of learner abilities. Adaptive learning systems might lower the number of students who fail or drop out by helping students who need it with remedial work and letting advanced students learn faster when they might not have enough challenges otherwise. Ultimately, such systems may result in a more skilled workforce and enhanced student preparedness for higher education and employment, thereby directly supporting the NEP's vision of a competent and innovative community.

AI has the potential to enhance inclusion in novel ways. AI-based learning apps, especially those that work on cheap smartphones, give girls and students from disadvantaged groups an alternative way to get extra help with their schoolwork when they may not be able to afford or get social support for extra tutoring. UNESCO's analysis indicates that AI can be used

specifically to target disadvantaged socioeconomic groups and improve educational opportunities for girls and women. Specialist AI programs are emerging to promote girls' participation in STEM fields by offering female AI tutors and role models in software, as well as AI-driven career counselling designed to address gender biases. Furthermore, students with disabilities can benefit significantly; for example, AI speech agents can vocalise textbooks for visually impaired individuals, while machine translation can transcribe sign language into text or speech for those with hearing impairments, thereby enhancing classroom inclusivity. These applications advance the NEP's principles of equity and accessibility as basic principles.

AI can enhance effectiveness and openness in educational governance. AI systems in administration can improve the way resources are used by automatically putting teachers in key areas and managing the distribution of scholarships or admissions through algorithms that are meant to get rid of human bias. An AI-based decision support system can identify districts that require urgent intervention—such as additional classes, increased teacher availability, or technology integration—by analysing historical data, including exam results and socioeconomic indicators, to predict learning outcome trends. This approach, grounded in data, enhances the timeliness and evidence-based nature of policy interventions. It can also decrease the bureaucratic workload; routine tasks may be automated, potentially minimising opportunities for human error or corruption (such as an AI system that oversees fund utilisation or identifies anomalies in textbook delivery). The emphasis on AI in education under NEP 2020 is fostering a new era of capacity-building and innovation within the country. India is cultivating a generation of students through the integration of AI in educational institutions, enabling them to transition from mere consumers of technology to potential creators of AI solutions. This approach is consistent with the national objective of establishing leadership in AI and other

emerging technologies. Early exposure to AI may lead students to engage in advanced studies and contribute to research, with some potentially establishing education-focused AI startups and thereby fostering a cycle of innovation. The National Research Foundation emphasises AI research and initiatives, such as hackathons aimed at education, which motivate young innovators to address local challenges, including the development of AI solutions that function effectively with low internet bandwidth or accommodate tribal languages. Such work enhances education and establishes India as a contributor to global AI developments, especially in the area of AI for low-resource environments and multilingual contexts.

The capability of AI to manage various languages and dialects enables India to document and distribute knowledge in regional languages on an unprecedented scale. These capabilities may initiate a revival of Indian languages within academic settings, leading to increased research output in Hindi, Tamil, Bengali, and others, as well as enhanced scholarly discourse in native languages, as advocated by NEP 2020. Artificial intelligence can aid researchers in translating their own work and in accessing the work of others across language barriers. This enhances India's cultural and knowledge diversity, ensuring that English does not serve as a barrier to quality education and information.

Ultimately, the integration of AI in education equips India to address the future of work and learning. The integration of AI fosters flexibility and innovation within institutions. This approach familiarises students with continuous learning and engagement with AI—competencies that will be essential as AI becomes pervasive across various disciplines. Schools and colleges are increasingly resembling future societal structures, characterised by collaboration between humans and AI. The insights gained in this controlled setting, such as those regarding ethical AI utilisation and the enhancement of human decision-making through AI recommendations, will extend to other fields. In conclusion, addressing significant challenges like the

digital divide, teacher training, and ethical implementation is possible through targeted policy action, investment, and innovation. NEP 2020 serves as a guide that underscores the importance of universal access, fairness, and quality, all of which should inform efforts to integrate AI. India will be able to use AI to reach its lofty NEP goals if it resolves problems by improving its infrastructure, like making the Digital India program available in all villages, putting in place strong policy frameworks like data protection laws and AI in education guidelines, and creating training programs for everyone. The documented findings indicate a positive trend: pilot programs and early initiatives demonstrate potential in enhancing learning experiences and governance. The objective is to expand these initiatives and guarantee that they serve all learners nationwide.

10 Conclusion

The National Education Policy 2020 has propelled the incorporation of artificial intelligence in education across India to revolutionize both learning and teaching. The integration of AI is assisting NEP 2020 in achieving its objective of a technology-driven and inclusive educational framework. From AI curricula in schools and colleges to AI-powered platforms for personalised learning and language translation, the projects signify a paradigm shift in Indian education. In the digital era, multilingual education, backed by AI technologies, is a pioneering endeavour to embrace India's linguistic diversity. AI-enabled multilingual material, intelligent teaching, and improved administrative operations are benefiting students and instructors. AI-driven NLP solutions for Indian languages have improved, although linguistic variety, data availability, and model quality remain issues. Increasing academic and industrial partnerships bode well for NLP applications in India. NEP 2020 will highlight the importance of NLP technologies in digital inclusion and multilingual learning. The study also indicates that these changes are difficult. NEP 2020 warns that we must address internet access, teacher capacity, and AI ethics. How successfully India can expand technical infrastructure to

underprivileged places, educate educators at scale, and enforce data and equality regulations will determine AI's effectiveness in education. Infrastructure projects, teacher training, and AI ethical frameworks show that the government and commercial sector are aware of these demands. As AI technology advances, so must school and college initiatives to appropriately incorporate it. In conclusion, India's education sector AI integration advances demonstrate bold policies and inventive practice. By seeing AI as a disruptor and a vehicle for inclusiveness, the NEP 2020 has helped modernise education. With further efforts to address infrastructural and societal problems, India can create a more personalised, accessible, and efficient education system that might inspire other emerging countries. These changes may have a profound impact: a generation of learners comfortable with AI-driven learning, a cadre of proficient in technology educators, and a repository of multilingual educational resources that preserve cultural richness while providing world-class knowledge. The confluence of AI and education in India is yet young, but it might meet the NEP's ultimate goal: fair, high-quality education for everyone, enabled by technology and human invention.

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Phonological Errors in Hindi: A Study of Malayalam Speakers in Delhi

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ABSTRACT

This paper presents a study investigating the language errors made by native speakers of Malayalam when speaking Hindi, with a specific focus on individuals aged 40 and above who have been settled in Delhi for more than two decades. Despite their extended residency in Delhi, these individuals exhibit significant disparities in Hindi language proficiency across phonology, morphology, syntax, and semantics. The primary objective of this research is to identify, analyse, and classify the errors encountered in their spoken Hindi, focusing on phonology and shedding light on language acquisition challenges in a different linguistic environment. The findings contribute valuable insights to the field of second language acquisition, emphasizing the complexities and factors influencing language learning and usage.

Keywords: *Phonology, Malayalam, Hindi, Error Analysis, Second Language Acquisition and Language Acquisition Challenges.*

1 Introduction

Error analysis in linguistics helps understand second language acquisition by identifying patterns in learners' mistakes. These errors, influenced by the first language and other factors, provide insights into language production and comprehension. By analysing pronunciation, grammar, vocabulary, and discourse errors, linguists can examine the transitional interlanguage system learners develop. Identifying common patterns aids in refining teaching strategies, improving language proficiency, and enhancing curriculum development. This approach also evaluates the effectiveness of teaching

methodologies, contributing to better instructional practices for second language learners.

Malayalam is an Indian language spoken primarily in Kerala and parts of Tamil Nadu, Puducherry, and Lakshadweep. It became a “Classical Language of India” in 2013 (The Hindu, 2013). With approximately 35 million speakers, Malayalam remains dominant in Kerala but also has a significant presence in Tamil Nadu, Karnataka, and the Gulf states (Krishnamurti, 2025). Hindi, an Indo-Aryan language, is spoken by over 609 million people, making it the third most spoken language globally (Sheviakova, 2024). Despite its widespread usage, Hindi differs significantly from Malayalam in grammar, phonology, and script, making acquisition particularly challenging for Malayalam speakers.

Hindi education in Kerala has been a contentious issue due to historical resistance against its imposition. Around 40 years ago, protests erupted over making Hindi mandatory in schools, as it was seen as a threat to Malayalam’s linguistic identity (India Today, 2015). Over time, attitudes have shifted, and Hindi is now widely taught in schools, though proficiency varies. The migration of Malayalis to Delhi, driven by economic and educational opportunities, has further exposed them to Hindi. However, despite prolonged exposure, many struggle with fluency due to the strong influence of Malayalam’s phonology and syntax. This phenomenon, observed among migrants over 40 years of age, aligns with theories like the Critical Period Hypothesis, which suggests that language acquisition becomes significantly harder with age. The persistent influence of Malayalam on their Hindi highlights the complexity of second-language learning in adulthood, shaped by linguistic and sociocultural factors (Census: Number of Migrants: Kerala 1991–2011).

2 Review of Literature

The literature review focuses on crucial concepts in second language acquisition (SLA): error analysis, contrastive analysis,

sociolinguistic approach to error analysis, and the critical period hypothesis. Understanding these concepts is essential for comprehending language errors and their origins in SLA.

The persistence of Malayalam influence on Hindi among individuals over 40 years of age, despite prolonged exposure, can be examined through various second language acquisition (SLA) theories. Contrastive Analysis (Lado, 1957) suggests that linguistic differences between L1 and L2 can predict areas of difficulty. Given the structural differences between Malayalam and Hindi, negative transfer may account for recurring errors. However, long-term exposure does not always lead to complete acquisition, raising questions beyond mere linguistic contrast. Error Analysis (Corder, 1967) further explains this phenomenon by highlighting systematic errors that emerge as part of interlanguage—an evolving linguistic system influenced by both L1 and L2. The fossilization of certain errors despite continuous exposure suggests that learning does not always progress linearly and may stabilize at an intermediate stage.

Beyond linguistic structures, sociolinguistic factors play a crucial role. Tarone (1988) emphasizes how social and cultural contexts shape language acquisition, suggesting that factors such as limited immersive interaction with Hindi and the dominance of Malayalam in daily life may reinforce L1 influence. Additionally, the Critical Period Hypothesis (Lenneberg, 1967) proposes that language acquisition is most effective during a biologically determined window, with post-pubertal learners often struggling to attain native-like proficiency. While these individuals have had extended exposure to Hindi, the age-related decline in implicit learning mechanisms may contribute to the persistence of L1 interference. Taken together, these perspectives suggest that second language acquisition in older learners is shaped by a complex interplay of linguistic transfer, interlanguage stabilization, sociocultural influences, and age-related constraints, making complete acquisition more challenging despite years of exposure.

3 Methodology

The research involved three phases: participant identification, data collection, and data analysis. Fifteen adult native Malayalam speakers aged 40 and above, residing in Delhi for over twenty years, were purposively selected for the study. The participants' genders, occupations, and socioeconomic backgrounds were diverse to represent the broader population of Malayalam speakers settled in Delhi. This study purposively selected adult native Malayalam speakers aged 40 and above, guided by the Critical Period Hypothesis which emphasizes age as a key factor influencing second language acquisition outcomes. The participant selection did not prioritize gender, as the primary intent was to explore phonological errors related to age and not sociolinguistic variation. During data analysis, both male and female participants exhibited similar patterns of phonological errors; thus, gender-based differentiation was not emphasized. While individual differences naturally occur in language learning, this study focuses on identifying shared phonological error types rather than examining person-to-person or gender-related variations, which fall outside the scope of this research.

The data collection process involved a self-report questionnaire and a language test. The questionnaire gathered information on participants' Hindi proficiency and exposure to the language, while the language test evaluated their ability to translate Malayalam sentences into Hindi. Descriptive statistics were used to analyse the self-report questionnaire data. An error analysis approach was adopted for the language test, classifying errors made by participants into distinct types.

3.1 Dialectal Background of Participants

The participants in this study are native Malayalam speakers originating from diverse regions across Kerala. As such, their linguistic backgrounds reflect the wide range of Malayalam dialects spoken throughout the state, including but not limited to those from any one particular region of Kerala. No single

variety of Malayalam predominates in the participant group; instead, the study intentionally encompasses individuals whose speech represents this dialectal diversity. Furthermore, none of the participants are native speakers of any particular standard Hindi dialect. Their Hindi usage, shaped by prolonged residence in Delhi, emerges as a non-standard, learner variety, heavily influenced by their first language and personal learning trajectories. This diversity acknowledges that the data analysed in this research captures a spectrum of interlanguage forms rather than fixed or regionally standardized varieties of either Malayalam or Hindi. The comparison is not between standard Hindi or a certain dialect or variety of Hindi and standard Malayalam or a dialect or dialects of Malayalam; rather I would use the term ‘Delhi Hindi’ to refer to the Hindi spoken in Delhi by native Hindi speakers who are residents of Delhi. Recognizing this dialectal and interlanguage variability is essential to understanding the phonological errors and patterns identified, as these may reflect both individual backgrounds and the complex interplay between participants’ first and second languages.

4 Results

This section includes identifying the types of phonological errors in Hindi produced by native Malayalam speakers and further classifying the errors into different categories to analyse their nature and gain insights into the influencing factors that give rise to such errors.

4.1 Vowel Errors:

Vowel errors occur when individuals mispronounce or substitute one vowel sound for another during speech production.

Eg.

1. *mẽne* > *maine* ($\epsilon > ai$) ‘I’ (diphthongization)
2. *kẽ:se* > *kaise* ($\epsilon > ai$) ‘how’(diphthongization)

3. *gərmi* > *germi* (ə > e) 'hot' (vowel fronting)
4. *ḍərḍ* > *derḍ* (ə > e) 'pain' (vowel fronting)

These errors can arise due to several factors, such as differences in vowel inventories between the native and target languages, i.e., Malayalam and Hindi vowel inventories in this case, unfamiliarity with specific vowel articulations, or difficulty in perceiving and producing subtle distinctions between vowel sounds. Vowel errors can lead to miscommunication or difficulty in understanding spoken language.

Some more examples of vowel change:

5. *pɛ:sa* > *paisa* (ɛ > ai) 'money' (diphthongization)
- a. *pɛ:ḍəl* > *paidal* (ɛ > ai) 'by foot' (diphthongization)
- b. *pɛ:ḍəl* > *paidal* (ə > a) 'by foot'¹ (vowel fronting)

In 6a), vowel change is taking place in the first syllable, whereas in 6b), vowel change is taking place in the second syllable. 6a) shows diphthongization, and 6b) shows vowel fronting.

4.2 Substitution Errors:

Substitution errors refer to a specific type of linguistic error in which one sound is replaced or substituted with another sound during speech production.

Eg.

6. *kʰaṭəm* > *kʰaḍəm* (ṭ > ḍ) 'finish' (intervocalic voicing)
7. *pa:gal* > *pa:hal* (g > h) 'mad' (fricativization)
8. *mudʒʰe:* > *mutʃʰe:* (dʒʰ > tʃʰ) 'I/me' (devoicing)
9. *dʰu:p* > *dʰu:b* (p > b) 'sunlight' (voicing)

Such errors can occur due to various factors, including articulatory difficulties, lack of familiarity with certain sounds of Hindi, or influence from the participants' L1, i.e., Malayalam. These substitutions can affect individual phonemes or entire

phonological patterns, leading to mispronunciations and potential misunderstandings.

4.3 Mother Tongue Influence:

Mother tongue interference refers to the phenomenon where the linguistic patterns, sounds, or structures of an individual's first language affect their use and understanding of a second or foreign language.

Errors found in participants' Hindi, due to mother tongue influence, include 'Addition errors', where the vowel /ə/ is getting added at the word-final position of certain words.

Eg.

- | | | | |
|-----|------------------------------------|------------------|-------------|
| 10. | $\text{d̪ərd̪} > \text{d̪ərd̪ə}$ | 'pain' | (epithesis) |
| 11. | $\text{pəsənd̪} > \text{pəsənd̪ə}$ | 'like' | (epithesis) |
| 12. | $\text{d̪ʱu:p} > \text{d̪ʱu:pə}$ | 'sunlight' | (epithesis) |
| 13. | $\text{de:d̪ʱ} > \text{de:d̪ʱə}$ | 'one and a half' | (epithesis) |
| 14. | $\text{bɔhət̪} > \text{bəhət̪ə}$ | 'very' | (epithesis) |

This type of addition error made by the subjects can be attributed to the fact that, in Malayalam schwa sound (/ə/) is often used at the end of words and due to the habitual use and internalization of linguistic patterns in the mother tongue, the same pattern is replicated in the Hindi spoken by the participants as well. Not all words end up with epenthetic vowels, and sometimes, words of a similar structure are treated differently. This variable application points to the influence of morpho-phonological structure, the prosodic template of the native language, and idiosyncratic strategies. The inconsistent realization of epenthesis underlines the flexible and developing nature of the learners' L2 phonological system—certain words trigger epenthesis more regularly depending on morphological transparency, stress patterns, or perceived 'wordhood' in the L1.

4.4 Pronunciation Errors:

These types of errors are mistakes made when speaking a language, where certain words or sounds are mispronounced. These errors can happen due to factors like accent, limited exposure to the language, influence of the mother tongue, or difficulty in producing specific sounds.

Eg.

- | | | | |
|---|-------------|----------|-----------------|
| 15. $k^h\text{ə}ri:\text{ḍ}e > k\text{ə}ri:\text{ḍ}e$ | $(k^h > k)$ | ‘buy’ | (de-aspiration) |
| 16. $k^h\text{əṭṭ}am > k\text{əṭṭ}am$ | $(k^h > k)$ | ‘finish’ | (de-aspiration) |
| 17. $k^ha:na: > ka:na:$ | $(k^h > k)$ | ‘food’ | (de-aspiration) |

‘De-aspiration’ is the most commonly observed pronunciation error that takes place in the Hindi spoken by the Malayali participants. This could be attributed to the fact that, in Malayalam, at the word initial position, the occurrence of aspirated sounds is relatively rare (almost non-existent) compared to unaspirated sounds.

Another type of pronunciation error that was observed was:

- | | | | |
|------------------------|------------|---------|---------------------|
| 18. $gussa: > gu:ssa:$ | $(u > u:)$ | ‘anger’ | (vowel lengthening) |
| 19. $beka:r > be:ka:r$ | $(e > e:)$ | ‘bad’ | (vowel lengthening) |

Pronunciation errors can lead to difficulties in understanding and communicating effectively. They may cause confusion or misunderstandings between speakers. These show that not only are segmental vowels substituted, but vowel length itself is subject to variation, sometimes lengthened in error, perhaps mimicking Malayalam's own quantity distinctions. This is not always consistently described in my analysis but is an important dimension of second language phonological acquisition and potential miscommunication.

Interlanguage phonology research has consistently demonstrated that variability is a natural and pervasive

characteristic of adult second language (L2) acquisition, particularly in phonological systems. Studies such as Tarone (1979) and Selinker (1972) underline that interlanguage is inherently variable, exhibiting fluctuation both within and across speakers as they adapt L2 forms using strategies influenced by their first language (L1), learning context, and communicative needs. In the context of the present study, this variability manifests in the inconsistent application of phonological rules—such as alternating vowel substitutions, optional epenthesis, or variable de-aspiration—in Hindi speech by adult Malayalam speakers. Such findings are aligned with broader theoretical models, which stress that these patterns are not indicative of random error, but reflect the evolving, systematic nature of interlanguage. Recognizing and analyzing this variability is essential, both for accurate linguistic description and for the development of effective pedagogical strategies that account for the fluid, transitional state of learners' phonological competence.

5 Conclusion

The findings of this study shed light on the specific errors encountered by native Malayalam speakers when speaking Hindi. The phonological errors encompassed vowel errors, substitution errors, mother tongue influence, and pronunciation errors. Vowel errors occurred due to differences in vowel inventories between Malayalam and Hindi, unfamiliarity with specific vowel articulations, and difficulty in perceiving and producing subtle distinctions between vowel sounds. Substitution errors were influenced by articulatory difficulties, lack of familiarity with certain sounds of Hindi, or the participants' native language, Malayalam. Mother tongue influence resulted in 'addition errors' where the vowel /ə/ was added at word-final positions in certain words. Pronunciation errors were often characterized by de-aspiration and vowel lengthening. These errors in phonology could lead to miscommunication and difficulties in understanding spoken language.

Recent advancements in second language acquisition (SLA) research highlight the necessity of a multidimensional theoretical framework to effectively analyze phonological errors. Foundational models such as Interlanguage Theory, the Contrastive Analysis Hypothesis, and the Monitor Model remain crucial for understanding persistent cross-linguistic influences and error patterns in adult learners. Building on these, models like the Speech Learning Model and Perceptual Assimilation Model provide targeted explanations for how similarities and differences between Malayalam and Hindi phonological systems shape learners' production of Hindi sounds. Contemporary studies increasingly emphasize the value of multimodal and AI-driven assessments, acknowledging the dynamic interaction of cognitive, social, and technological factors in L2 phonological acquisition. Adopting this integrated perspective offers a comprehensive basis for interpreting the diverse error patterns observed in this study.

The results of this study contribute to the field of second language acquisition by highlighting the complexities and factors influencing language learning and usage. The findings emphasize that prolonged exposure to a different linguistic environment does not always result in proficiency comparable to that of native speakers. Factors such as differences in vowel inventories, articulatory difficulties, mother tongue influence, and syntactic transfer play significant roles in the errors made by native Malayalam speakers when speaking Hindi. Understanding these challenges is crucial for language teachers, curriculum developers, and language learners. Teachers can design targeted interventions and instructional strategies to address the specific errors encountered by native Malayalam speakers learning Hindi. Curriculum developers can incorporate materials and activities that raise awareness of the differences between Malayalam and Hindi and provide ample practice opportunities for overcoming these challenges. Language learners can benefit from recognizing and actively working on

the areas where they tend to make errors, focusing on pronunciation, syntax, and semantics.

Footnotes:

¹ 6a) and 6b) are a single token, but there are two phonological changes reported. These changes are not occurring at different times or by different speakers; rather, for organized reporting of phonological changes, it has been shown twice.

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Structural Differences in Polarity Items: Learning Challenges for Telugu Speakers of English*

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ABSTRACT

The acquisition of Negative Polarity Items (NPIs) in a second language poses significant challenges when the licensing conditions differ between the learner's first language (L1) and the target language (L2). This paper examines the structural asymmetries between English and Telugu NPIs and their impact on Telugu speakers learning English. While English NPIs are licensed in a variety of affective environments—including negation, yes-no questions, conditionals, and adversatives—Telugu NPIs are strictly licensed by negation, with distinct polarity markers for other environments. This fundamental difference leads to persistent transfer effects, causing Telugu learners to overgeneralize or underuse NPIs in English. Errors include avoiding NPIs in interrogative and conditional contexts, misinterpreting free-choice readings of any, and misplacing NPIs in subject position. Additionally, Telugu learners may struggle with the correct distribution of Positive Polarity Items (PPIs), leading to incorrect placement in negative contexts. By analysing these error patterns, this study highlights the need for explicit instruction on English NPI licensing to mitigate cross-linguistic interference.

Keywords: *Telugu, English, Positive Polarity, Negative Polarity, structural asymmetries.*

1 Introduction

The acquisition of a second language (L2) is significantly influenced by the learner's first language (L1), especially in areas where L1 and L2 exhibit structural asymmetries. This phenomenon, known as language transfer (Odlin, 1989), can lead to both facilitation and interference in L2 learning. Cross-linguistic studies (White, 1996; Lardiere, 2009) suggest that parameter resetting in L2 acquisition—the process by which learners adapt to L2-specific syntactic constraints—can be

particularly difficult for certain structures, where the L1 has a more flexible system.

One crucial syntactic-semantic area where such transfer effects are evident is the domain of Negative Polarity Items (NPIs)—expressions that require specific licensing conditions, typically appearing in negative or downward-entailing environments (Ladusaw, 1979; Giannakidou, 1998). Telugu, a South Dravidian language, has a rich system of NPIs that differs significantly from English in terms of syntactic distribution and semantic licensing. These differences present a considerable challenge for Telugu-speaking learners of English. Previous research on NPI transfer in second language learning (Tsimpli & Roussou, 1991; Déprez et al., 2015) indicates that L1-induced errors persist at advanced stages of proficiency, especially when L1 NPIs are licensed in broader syntactic environments than their L2 counterparts. Telugu learners, accustomed to the presence of NPIs in a variety of non-negative contexts, may struggle to restrict their use in English, leading to overgeneralization errors or avoidance strategies in L2 production.

Given these linguistic challenges, this paper examines the specific ways in which Telugu NPIs influence the learning of English NPIs, with a focus on error patterns, transfer effects, and pedagogical implications. In Section 1, we give a brief distribution of Polarity Items in English, followed by the syntactic distribution of Polarity Items in Telugu in Section 2. In the final section, we shall discuss the interference of Telugu in the use of NPIs in English by Second Language learners.

1.1 Polarity Items in English

In the literature on polarity items, there has been a two-way classification of polarity items, viz., Positive Polarity Items (PPIs) and Negative Polarity Items (NPIs). PPIs in English are words like *somebody*, *something* and *someone*; and NPIs are like *any*, *yet* and *ever*. NPIs occur in negative environment and PPIs do not. In other words, NPIs are licenced by a negative in

the sentence and PPIs are not. Following sentences illustrate this point.

- (1) a. John hasn't eaten anything.
b. *John has eaten anything.
- (2) a. *John hasn't eaten something.
b. John has eaten something.

In (1a), the NPI *anything* is licensed by the negative *not* and in (ab) it is not. Thus (1a) is grammatical and (1b) ungrammatical. In contrast, (2a) is grammatical since the PPI *something* cannot be licensed by a negative. Thus, its occurrence in (2b) is acceptable as there is no negative.

It is also noticed that the distribution of NPIs is not restricted to negative sentences. They can also occur in Yes-no questions, conditional clauses, and also comparative clauses¹ (See among others, Jackendoff (1969, 1972), Linebarger (1980), Davison (1981), Progovac (1989)). For example²,

- (3) If you eat anything, I'll hit you.
- (4) Is anything wrong?
- (5) He knew more than anybody realized.

Sometimes NPIs are also licensed by adversatives like *dislike* and *doubt*. However, unlike a negative, the adversatives do not license a clausemate NPI unless it occurs in an NP which receives a propositional interpretation (Linebarger, 1980), cf. (6) – (7).

- (6) a. *I dislike any of his friends.
b. I dislike having to put up with any of his friends.
c. I dislike any food on the counter.
- (7) a. *I doubted anybody's claims.
b. I doubted that anybody would show up.

Notes

¹ Even PPIs are acceptable in these environments with no difference in meaning.

²The following sentences are taken from Linebarger (1980).

c. I doubted any involvement on his part.

In (a)-sentence, the NPIs are not licensed as they in the same clause as the adversatives. In (b)- sentences, the NPIs are in a lower clause than the clause in which the adversatives occur. And in (c) sentences, the NPIs and the adversatives are in the same clause, but unlike the (a) sentences, these sentences are grammatical as the NPs in which the NPIs occur can be interpreted as propositions.

Besides these readings, the NPI *any* in English also has free-choice reading. There are certain definable environments like simple sentences containing modals (except must) or the generic present and imperatives in which the NPI *any* has free choice reading. For example,³,

(8) a. Anyone can/may/*must leave at any time.

b. Anyone will help you.

(9) Come in any time.

To summarize this section, NPIs in English occur in negative environments, yes-no questions, conditional clauses, and with some adversatives, while PPI do not occur in negative environments.

2 Polarity Items in Telugu

The polarity items in Telugu are derived from question words, a quantifier (Kumar, 2019)⁴, which is illustrated in the following table.

Wh-word	PPI	NPI
eemi ‘what’	eem-oo	eemi-i ‘anything’
ewaru ‘who’	‘something’	ewaru-u ‘anyone’
eppuDu ‘when’	ewar-oo ‘someone’	eppuDu-uu ⁵ ‘anytime’

³The following sentences are taken from Davison (1979).

⁴ Kumar (2019) mentions that NPIs are also derived from idioms and gives a linguistic account of NPIs in Telugu.

⁵This word also means ‘always’, which is not an NPI.

eppuD-oo
'sometime'

What seems to us in the above is that PPIs are formed by the addition of *-oo* and NPIs are formed by lengthening of the last vowel of the question word⁶. But look at the following:

- (10) *waaDu* [*eeuuri-ki-i*] *veLLaleedu*
 he-nom. which village-dat-I go did not
 He did not go to any village.

The phrase in brackets is the NPI here. As you see, the question word 'ee' has not changed. Instead, the last vowel of the word *uuriki* is lengthened. That is, it is the last vowel of the DP containing a wh-word which is lengthened and not of the wh-word. Besides this, there is another class of NPIs which are not derived from wh-words/-phrases. For example, the word *inkaa* 'yet' is not derived from any wh-word.

As in other languages, NPIs are licensed by a negative while PPIs⁷ are not. Following sentences illustrate this.

- (11) a. *aayana* *eemi-i* *tina leedu*
 he-nom what-i eat did not eat
 He did not eat anything.
 b. **aayana* *eemi-i* *tinnaaru*

⁶The *-oo* of PPIs and the lengthening of the last vowel in the case of NPIs are also disjunction and conjunction markers respectively in Telugu. This is also true of other Dravidian languages (See Madhavan (1996) for Malayalam examples and analysis.

⁷PPIs can occur in negative sentences as in the following. However, they are licensed by the negative and have a different meaning.

- eedoopustakam kanipincaTam leedu*
 some book seen no
 Some book is not seen.

This sentence is used in a context when a speaker remembers that there are a particular number of books. But now the number of books is less by one. That is, there is one book missing which the speaker cannot point out.

- he-nom what-i ate
He ate anything.
- c. aayana eem-oo tina leedu
he-nom what-oo eat did not eat
He did not eat something.

(11b) is ungrammatical because there is no negative in the clause to license the NPI *eemii*. In (11c), though the PPI and the negative together, the latter does not license the former. And in (11a), the NPI *eemii* is licensed by the negative.

Also, a negative in a higher clause can license an NPI in Telugu. For example, look at the following:

- (12)
(neenu) [[ewar-uu maa inTiki waccaaru] (ani)] ana leedu
I anyone our house0to came that say did not
I did not say that anyone came to my house.

- (13)
*ewar-uu [[raamuDu maa inTiki raaleedu]ani] ceppaaru
Anyone Ramudu our house- come did that told
to not

Anyone said that Ramu did not come to my house.

In (11) the NPI *ewaruu* is in the embedded clause and is licensed by the negative in the matrix clause. Whereas in (13), the negative is in the embedded clause which cannot license the NPI in the matrix clause. We shall note here that NPIs in Telugu are licensed by only a negative and not by any affective environments like yes-no question, sentences with adversatives and conditionals. Cf. (14), (15) and (16).

- (14) *inT-loo ewaru-u unnaar-aa
house-in whou-u is-QM
Is anyone there in the house?
- (15) *inT-loo ewaru-u un-Tee baiTiki vastaaru
house-in whou-u be-if out will come
If there is anyone in the house, he/she will come out.

- (16)*[[waaLLu eemi-i tinnaaru] ani] neenu
 anumaaanpaDDaanu
 they what-i ate that I doubted
 I doubted they had eaten anything.

Moreover, Telugu NPIs cannot have free-choice reading.

- (17) **evaru-u diinni ettagalaru*
 who-u this can lift
 Anyone can lift this.

- (18) **eemi-i tinu*
 what-i eat-imp
 Eat anything.

(17) and (18) are ungrammatical though they provide the environment for the NPIs to have a free-choice reading. (17) has a modal in it and (18) is an imperative. That is, Telugu NPIs have only polarity reading and are licensed by an overt negative. Then what occurs in the affective environments without a negative?

Consider the following sentences:

- (19) a. *inT-loo evar-ainaa unnaar-aa*
 house-in who-ainaa is-Question Marker
 Is there anyone in the house?
 b. *inT-loo evar-ainaa unT-ee, baiTiki vastaaru*
 house-in who-ainaa is-if out will come
 If there is anyone in the house, he/she will come out.

(19a) is a question and (19b) has a conditional clause. The polarity items here are also derived from question words. But what is added to the question word is *-ainaa*, which, in isolation means ‘even if it happens’. But that meaning does not have anything to do as an affix in this polarity item. These polarity items have existential reading, but they are licensed by a question operator and a conditional in (19a) and (19b) respectively. This is clear from the following sentence:

- (20) **inT-loo evar-ainaa unnaaru*
 house-in who-ainaa is

There is anyone in the house.

We can call this *ainaa*-polarity item.

Here's a comparative table of the differences between **Telugu** and **English** Polarity Items (NPIs and PPIs):

Feature	English	Telugu
Formation of NPIs	Specific words like <i>any, ever, yet</i>	Derived from wh-words by lengthening the last vowel (e.g., <i>eemi</i> → <i>eemi-i</i>)
Formation of PPIs	Words like <i>somebody, something</i>	Derived from wh-words by adding <i>-oo</i> (e.g., <i>eemi</i> → <i>eem-oo</i>)
Licensing of NPIs	Licensed by negation, yes-no questions, conditionals, comparatives, adversatives	Licensed only by negation, not by questions, conditionals, or adversatives
NPIs in Yes-No Questions	Allowed	Uses <i>ainaa</i> -polarity item
NPIs in Conditionals	Allowed	Uses <i>ainaa</i> -polarity item
NPIs with Adversatives (<i>doubt, dislike</i>)	Allowed	Not allowed <i>napaDDaanu</i>
Cross-Clause NPI Licensing	Not allowed	Not Allowed
Free Choice Reading of <i>any</i>	Allowed	Not allowed
PPIs in Negative Contexts	Not allowed	Not allowed

This table highlights key differences in the licensing and interpretation of Polarity Items between English and Telugu. Telugu learners of English may make errors due to these structural mismatches, which we shall discuss in the next section.

3 Influence on Learners of English in Using Polarity Items

Telugu learners of English may make the following errors when using Polarity Items in English:

a. Overgeneralization of NPI Licensing by Negation

Since Telugu NPIs are strictly licensed only by negation, Telugu learners of English may assume that NPIs like *any* or *ever* are always ungrammatical in non-negative contexts, even when they are acceptable in conditional clauses and questions in English. Moreover, learners may not use English NPIs in non-negative environments. They may use a sentence like, “Did you see someone in the room?” to mean “Did you see anyone in the room?”⁸

In addition, learners may not use NPIs in questions and conditionals, as Telugu has a separate set of polarity items used in these contexts. Instead, they may use PPIs in those environments.

b. We have seen that NPIs in Telugu do not have a free-choice reading while NPIs in English have. Hence there is a possibility of learners assuming that *any* cannot be used in free-choice contexts. Instead of saying ‘Anyone can lift this.’, learners may use the sentence ‘Anyone cannot lift this.’

c. Use of NPIs in subject position

In Telugu, an NPI can occur in the subject position of a simple negative sentence while in English it is not. This may make the learners use sentences such as, “Anyone has not come home yet” to mean “No one has come home yet.” It is also to be noted here that Telugu does not have words equivalent to ‘none’, ‘nowhere’ etc.

d. Use of PPIs in Negative Contexts

⁸*Anyone* is neutral and suits general yes-no questions. *Someone* suggests an expectation that a person is present. The learner may miss such subtle difference in the usage.

Learners may fail to recognize that PPIs like *someone* or *something* are ungrammatical in negative environments in English. For instance, they may say, “*I didn’t see someone there*”.

4 Conclusion

Telugu learners of English may struggle with the nuanced licensing of NPIs due to differences in how English and Telugu handle polarity sensitivity. Explicit instruction on when NPIs are acceptable in English—beyond negation—can help mitigate these errors.

By analysing learner data and theoretical models of L2 acquisition, this study contributes to the broader discussion on L1 transfer in second language syntax and offers insights for more effective teaching strategies in ESL (English as a Second Language) instruction for Telugu-speaking learners.

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Reduplication of Telugu and Hindi: A Linguistic Analysis

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ABSTRACT

Reduplication, a widely observed morphological phenomenon across languages, demonstrates considerable variance among them. This article examines the linguistic disparities in reduplication between Telugu, a Dravidian language, and Hindi, an Indo-Aryan language, concentrating on structural, phonological, semantic, and syntactic distinctions. The research utilises typological frameworks and language-specific studies to illustrate how reduplication patterns in these two languages signify their genetic, phonological, and cultural differences. The research utilises qualitative data from primary and secondary sources, including instances from literary texts and spoken corpora, to assert that reduplication in Telugu and Hindi fulfils both universal and language-specific communication purposes.

Keywords: *Telugu and Hindi Word formation, Reduplication, Cross Linguistics Comparison, Structural Variations.*

1 Introduction

Reduplication in Telugu (Dravidian) and Hindi (Indo-Aryan) is a productive morphological process, characterized by distinct structural and functional patterns. It involves the repetition of a word or a part of it, serving as a crucial morphological approach in South Asian languages. Although Telugu and Hindi originate from different linguistic families, both languages make extensive use of reduplication. However, their reduplicative systems differ due to variations in phonological constraints, morphological restrictions, syntactic integration, semantic functions, and cultural influences. This paper examines the subsequent enquiries:

- a. What syntactic and phonological factors influence reduplication in Telugu and Hindi?

- b. How do the structural patterns of reduplication in Telugu and Hindi differ?
- c. To what extent do the semantic functions of reduplication in Telugu and Hindi correspond or diverge?

The present study employs Moravcsik's (1978) typological framework for reduplication, which provides a systematic classification of reduplicative structures across languages. Additionally, Abbi's (1992) areal analysis of South Asian languages offers insights into how reduplication functions as a linguistic feature within the broader typological landscape of the region. By integrating these frameworks, the study aims to analyse the phonological, morphological, and semantic aspects of reduplication in Telugu and Hindi, examining both universal patterns and language-specific constraints.

This study aims to analyse phonological and syntactic constraints on reduplication in Telugu and Hindi by examining their structural differences. It seeks to identify and categorize the types of reduplication in both languages, distinguishing between total, partial, and echo reduplication. Furthermore, it compares the semantic and grammatical functions of reduplication, investigating its role in intensification, distribution, plurality, and sound symbolism. Through this comparative analysis, the study contributes to a deeper understanding of morphological processes in South Asian languages and the broader linguistic principles underlying reduplication.

2 Literature Review

2.1 Reduplication in Dravidian Languages (Telugu)

Reduplication in Telugu is categorized into total, partial, and echo reduplication, with phonological features such as gemination and vowel harmony playing a crucial role (Krishnamurti, 2003). Total reduplication, where the entire

word is repeated, often conveys distributive plurality or emphasis.

Example: చిన్న చిన్న- *chinna chinna* → *small-small/scattered*
small objects encode distributive plurality, while echo forms టీ టీ, *ṭī-ṭī-tea* and *similar drinks*, denote vagueness.

2.2 Reduplication in Indo-Aryan Languages (Hindi)

Reduplication in Hindi follows distinct phonological and morphological patterns, often incorporating rhyming structures, emphasis, and semantic expansion (Singh, 2005).

Example: टुकड़े-मुकड़े *tukre-mukre* → bits and pieces.

Hindi's preference for uninflected compounds notes that for

Example: घर-घर- *ghar-ghar* → every house.

Total reduplication serves similar functions as Iteration or emphasis on frequency which identifies total reduplication in Hindi as a marker of high frequency or intensity Kachru (2006).

Example:

धीरे-धीरे (*dheere-dheere* 'very slowly') – parallel to చిన్న చిన్న (*chinna chinna*).

एक-एक (*ek-ek* 'one by one') – another distributive reduplication.

2.3 Cross-Linguistic Comparisons

One major phonological distinction between the two languages is vowel flexibility in Hindi vs. phonological constraints in Telugu (Abbi, 1992). While Telugu reduplication adheres to stricter phonological rules such as consonant gemination మెలిమెలి *mel-meli* *gentle-gentle*, Hindi reduplication allows for greater vowel alternation छोटे-मोटे *chhote-mote* 'small and big'.

Moreover, Telugu often integrates case markers within reduplicated forms ఇల్లు-ఇల్లు *illu-illu* *house by house*, whereas Hindi reduplication remains mostly inflection-free. This

highlights how reduplication is not only a morphological but also a syntactic phenomenon, shaping grammatical structures differently across the two languages (Kachru, 2006).

3 Methodology

This study employs a qualitative approach to analyse reduplication patterns in Telugu and Hindi, drawing data from literary texts, spoken corpora, and grammatical studies.

3.1 Data Collection

Data was sourced from Telugu and Hindi literary texts, including works by renowned authors, to ensure representation of natural language use. Additionally, examples were extracted from spoken language corpora, reflecting contemporary usage. Secondary sources, such as linguistic research on Dravidian and Indo-Aryan languages, were also consulted to provide a comprehensive analysis.

3.2 Data Analysis

The analysis follows morpho-phonological and syntactic approaches to reduplication, examining both structural constraints and functional roles. It also considers semantic dimensions, such as how reduplication amplifies meaning, indicates distribution, or enhances expressiveness in both languages.

3.3 Theoretical Framework

A qualitative examination of reduplication patterns was conducted, guided by theoretical frameworks established by Krishnamurti (2003), Singh (2005), and Moravcsik (1978). This approach combines empirical data with established linguistic theories to explore how reduplication functions across different language contexts.

4 Structural Variations in Reduplication

Reduplication exhibits diverse structural patterns across languages, serving grammatical, semantic, and phonological functions. In both Telugu and Hindi, reduplication can be

classified into total, partial, and echo reduplication, each fulfilling distinct linguistic roles.

4.1 Total Reduplication

Total reduplication is a morphological process when a whole word or stem is replicated to express a grammatical or semantic purpose, such as plurality, intensification, or aspect. This contrasts with partial reduplication, in which just an element of the word is repeated. (Martin Haspelmath and Andrea D. Sims, 2010)

4.1.1 Telugu

In written contexts, the repetition of an adverb or postposition can enhance its significance, as illustrated by the phrase లోపల లోపల (*lōpala lōpala/ lō lōpala*, which translates to deep inside. This example demonstrates the repetition of *lōpala-inside* to signify a greater depth or a more internal condition *deep inside*. Total reduplication frequently serves to emphasise or denote an extended or plural interpretation of the original term in distributive plurality, it's phonology often retains form without modification (Krisnamurti, 2003).

Telugu:

ఇల్లు ఇల్లు	<i>iḷḷu iḷḷu</i> →	house by house, indicating distribution or plurality.
ఒక్కొక్కరు	<i>okkokaru</i> →	each person.
పెద్ద పెద్ద	<i>pedda pedda</i> →	very big.

4.2 Hindi

Example: बार-बार - *bār-bār* → repeatedly.

In Hindi Hyphenation is common in written forms (Singh, 2005). Repeating an adjective or adverb to emphasize the degree or extent.

Example: धीरे-धीरे - *dheere-dheere*→ very slowly.

एक-एक – *ek-ek* → *one by one*.

4.3 Partial Reduplication

Partial reduplication, also known as echo word formation, entails the repetition of a word with modifications, usually involving changes to the initial consonant or syllable. This form is frequently employed to denote *and such or etcetera*:

4.3.1 Telugu

In contemporary usage, రప్ప *rappa* is not an independent term but rather a modified reduplicative element that reflects *rāyi*. The minor variation *rāyi* vs. *rappa* constitutes a form of partial reduplication, as the second element is derived from the first through phonological modification. Geminatio of the consonant ల - 'li' in *meli* → gentle, adverbial emphasis.

Example:

మెలి → మెల్లి *mel melli* → *gentle-gentle* → *melmelligaa*
 మెలి
 కొంచం *koncham* *little by little/ koncham*
 కొంచం → *koncham* → *gradual konchamgaa*
progression →

Krishnamurti (2003) describes partial reduplication in Telugu as involving "phonological reduplication with syllable modification".

4.3.2 Hindi

छोटे-मोटे – *choṭe-moṭe* → *small and big - diversity*.

टुकड़े-मुकड़े - *tukṛe-mukṛe* → *bits and pieces - indefinite quantity*.

Rhyme-based reduplication; *tukṛe* - *pieces* + altered *mukṛe*.

Abbi (1992) classifies this as rhyming reduplication, common in Indo-Aryan languages to denote indefiniteness. Here, it functions as semantic modulation, adverbial emphasis, or diversity.

4.4 Echo Reduplication

Echo words serve to convey a meaning similar to a variable X, Y and similar items or to generalise a concept without enumerating all instances. For instance,

4.4.1 Telugu

Example: అన్నం గిన్నం - *annam-ginnam* → *food and something*

Annam refers to *cooked rice or food*, while *ginnam* serves as an echo form where the initial *g-* replaces *a-*, denoting *food*, etc.

Example: పిల్లి గిల్లి - *pilli gilli* → *cat and such*

where *pilli* translates to *cat* and *gilli* serves as an echo form, indicating *cats like that*. This pattern demonstrates productivity, allowing for the formation of echo pairs across various nouns, adjectives, and verbs to expand reference.

Example: పిల్లలు గిల్లలు - *pillalu-gillalu* → *children and related entities*.

The structural formation of echo words in Telugu adheres to specific phonological rules. If the first syllable of the root word starts with a consonant/consonant cluster, it is generally substituted with *gi~* for a short first vowel *gī~* for a long first vowel.

Example: ఆకుగీకు - *āku-gīku* → *leaf or such things*.

In Telugu term *āku*, meaning *leaf* with *ā* as a long vowel, forms the echo *gīku*, resulting in *āku-gīku*, which translates to leaf or such things. In a similar manner, *ākali* - *hunger* transforms into

Example: ఆకలిగీకలి - *ākali-gīkali* → *hunger and the like*.

When the base word starts with a vowel, Telugu typically adds a velar consonant as a prefix to form the echo;

Example: ఇల్లు గిల్లు - *illū-gillū* → *house as such that*. These echoes frequently follow the pattern outlined by traditional grammarians: “In derogatory or familiar forms, reduplication occurs where the second part contains ‘gi’ as a substitute for the first syllable.”

Example: పెళ్లి రిళ్లి - *marriage-whatever* may be perceived as impolite, as it appears to trivialise the concept of marriage. Consequently, echo words serve a pragmatic function, indicating either familiarity or contempt based on context. Fixed echo segment functions as non-specificity (Krishnamurty 2003)

Example: పుస్తకం-గిస్తకం - *pustakam-gistakam* → *books and such*.

Example: Base టీ - tea + echo గీ → *rhyming syllable*.

4.4.2 Hindi

Singh (2005) Echo reduplication in Hindi expands the semantic range to encompass related items. Like, Echo segment is like - *vā*, base *chāy* "tea" + echo *vāy* – “no independent meaning” denoting vagueness, non-specificity, or a category of similar items.

Example: पानी-वानी - *pānī-vānī* → *water and similar things*.

4.5 Mimetic Reduplication

Telugu contains several ideophones and onomatopoeic words that replicate sounds, motions, feelings, and intensity. Adverbial or adjectival, they vividly describe actions or situations. To enhance their sound-symbolic impact, such terms are often repeated. Sometimes the whole word repeats a syllable or two similar ones.

Example:

గుస గుస - *gusa-gusa* → *whispering or faint sound ideophone.*

జల జల - *jala jala* → *quickly flowing water or tears.*

మల మల – *mala mala* → expresses great desire or longing,
like a churning stomach.

Each expressive form repeats a syllable or word to double its effect. These emotive reduplications symbolise intensity or recurrence of an activity or experience. Language imitates repeated or sustained events by repeating sounds.

In Telugu, expressive reduplications may express emotions, such as సలసల - *sala-sala* signifying fast movement. These forms are conventionalised, so fluent speakers learn and recognise them, but they may also be used to create novel sound-imitative doubles. Some are unique to Telugu, while others are shared by Dravidian languages or South Asian languages. Reduplication to enhance expression links them, reduplicating CV syllables and highlights memetic reduplication as a feature of Telugu's expressive lexicon (Krishnamurty, 2003) functions as Onomatopoeic representation of shaking.

4.5.1 Telugu

Examples:

గడగడ – *gaḍagaḍa* → trembling sound
టక్ టక్ – *ṭak-ṭak* → clock ticking.
టన్ టన్ – *ṭan-ṭan* → metallic clinking noise

4.5.2 Hindi

Examples:

धड़धड़ *dhaṛādhār* → running sound/ sound of rapid
footsteps
छप छप *chap chap* → splashing.
टन टन *ṭan ṭan* → clinking sound.

These are mimicking sounds or sensory experiences reduplicating CVC which are iconic representation of auditory experiences. Abbi (1992) notes that Hindi uses mimetic reduplication for vivid sound symbolism.

5 Functional Variations

Strengthening verbal expression by emphasising attributes or acts.

5.1 Telugu

Example: నడుస్తూ నడుస్తూ *naḍustū naḍustū* → *while walking*.

Repeated nouns or phrases might imply spread or plural:

Example: ఎవరు ఎవరు – *evaru evaru* → *who-who / everyone who or which people* rather than a single individual.

Similarly, ఏమీ ఏమీ – *what-what*-what all

Here, the repeated *what*– *ēmī* indicates a multifaceted inquiry. Reduplicated adjectives amplify or pluralise their impact.

Example: చిన్న చిన్న – *chinna chinna* → *very small children or many tiny children*, emphasising the smallness of the thing.

5.1.1 Functions of Reduplication in Telugu

Reduplication in Telugu has several uses across linguistic levels. Reduplication may change semantics, syntax, morphology, and sound patterns depending on context and kind. Roles are listed below:

5.2 Hindi

Example: सोचते-सोचते – *sochte-sochte* → *thinking continuously*.

Indefiniteness: Implying uncertainty.

In Telugu, ఎక్కడో – *ekkaḍō* → *somewhere*.

Hindi: कहीं-तः कहीं – *kahin-na-kahin* → *somewhere or another*.

5.3 Pejorative or Diminutive Sense

Being somewhat negative or diminutive. Reduplication may show fondness, familiarity, or contempt. Reduplication in Telugu frequently has diminutive or affectionate overtones. Repeating a phrase, particularly in child-directed speech or while addressing adults, might suggest fondness or closeness, like a pet name, in a soothing, caring tone. Reduplication may be used sarcastically to mock or express minor disgust. Telugu,

like many languages, uses jocular or sarcastic expressions that repeat a term to indicate a bad instance, such saying “friend-friend” to mean someone is not a friend. Linguists say Telugu reduplication may have “additional shades of meaning such as affection or even pejoration” beyond the fundamental meaning.

Telugu:

Examples: బాబు బాబు – *bābu bābu* → *boy, boy*

పాటలు-పాటలు – *pāṭalu-māṭalu* → *implying trivial songs*.

రావి రప్ప – *rāyi-rappa* → *stones and pebbles*

Hindi:

Example: कविता-कविता - *kavita-vavita* → *implying trivial poems*.

5.4 Semantic Functions

Reduplication in Telugu and Hindi serves multiple functions. Whereas, Telugu intensifies or attenuates meaning. Speakers may intensify or generalise a term by repeating it. Doubling an adjective like

Example: చిన్న చిన్న - *chinna chinna* → *small small / very small or emphatic*.

Repeating a verb or adverb emphasises the length or continuity of an activity,

Example: నడుస్తూ నడుస్తూ – *walking walking* → *walking continual*

Telugu:

Example: త్వరగా త్వరగా - *tvaragā tvarag*, → *very quickly*

In Hindi Moravcsik (1978) argues that reduplication serves universally to "amplify or emphasize" meanings.

Hindi:

Example: तेज तेज – *tez-tez* → *very fast*.

5.5 Plurality/Distribution

Telugu:

Example: పూలు పూలు - *pūlu pūlu* → *flowers everywhere*.

Hindi:

Example: पीला पीला – *pila pila* → *pilapan* - yellowish

लड़के-लड़की -*larke-larkī*, → *boys and girls*.

Hindi marks distributive plurality, Singh (2005)

5.6 Pragmatic Functions

Telugu: Reduplication often makes softer requests

Example: చాలు చాలు – *chālu chāl* → *enough, enough!*

बस बस – *bas bas* → *enough enough!*

Hindi: Used for hyperbolic expressions

Example: पैसे-पैसे – *paise-paise* → *every single penny*.

6 Linguistic Analysis: Comparative Insights of Telugu and Hindi Language

6.1 Phonetic and Phonological Functions

Telugu reduplication interacts with phonology, or sounds and rhythm. The phonological norms and patterns of reduplicative forms help illuminate Telugu's sound structure and prosody.

6.2 Fixed Syllable Substitution

Echo word construction uses phonological substitution to replace the base word's first segment with a set syllable *gi-ki-*. Phonological rules govern this process. Echo syllable vowels often match base word vowels. Basis a short triggers *gi* short *i*, whereas basis *ā* long activates *gī*. This rule emphasises phonological awareness since vowel length and syllable structure affect reduplication. Telugu avoids echoing the base since it would defeat its function, therefore only the beginning consonant must be changed. A general phonological guideline in many languages is to prohibit perfect identity in reduplication when a particular meaning like 'etc.' is sought. If a base word in Telugu begins with a velar consonant e.g., కాలు *kālu* → *leg*,

creating an echo may be challenging. Substituting *k* with *g* yields గాలు- *gālu*, which may resemble a separate word or stay too similar. To retain non-identity, speakers may use an alternate consonant or not echo, like in other Dravidian

languages. This shows that reduplication is phonologically modified to improve clarity and meaning.

6.3 *Sandhi and Prosody*

Sandhi is phonological connection criteria apply to convergent forms in Telugu, much like in compound formations. In Telugu, words ending in vowels are connected with the same vowel starting the next word, resulting in an additional *l* sound at the junction *inside-inside* → *deep inside* eg., *lōpala* + *lōpala* → *lōpal-lōpala/ lōlōpala*. This is done to simplify pronunciation. This suggests reduplicative compounds follow language prosodic tendencies. Telugu emphasises prosodic words' first syllable. Depending on speech cadence, reduplicated words may be independent words or a single prosodic unit. Telugu gives syllables identical time, therefore a repeated phrase like *gusa-gusa* fits properly since each *gusa* takes one beat. This gives repeated sentences a rhythmic character, used in music, slogans, and poetry.

6.4 *Phonemic Variations in Expressives*

Repetition enhances expressive reduplication's sound symbolism-influenced sound choosing. Telugu consonants are used to create unique sounds, such as *ʃ*- *cha* for high-pitched noises and *ɽ*- *gu* for rumbling sounds. *cha-cha* and *gu-gu* are instances of reduplication using a basic CVCV unit. Phonology reduplication usually preserves underlying syllable structure, Telugu reduplicatives *gusa-gusa* - *mala-mala* have a CVCV-CVCV pattern. Doubling enhances the rhythm and syllable pattern without adding syllables.

Vowel lengthening: Compound reduplications like echo words and other repeated compounds stretch vowels at borders. Some intense compounds prolong the first component's last vowel for emphasis or prosodic grouping. The compound *musali-muraka* - *musali:muraka* → *aged and very old*, with an extended *i* in the *old* component. This effect may be caused by speakers emphasising the vowel for emphasis *old* – *really old* or by

treating two nouns in an intense compound as a single phrase, prolonging the penultimate syllable. The subtleties show how phonology and meaning interact; prolonging a vowel or pause may intensify reduplication. Telugu reduplication follows sound-shape templates, substitution rules *gi/ki* for *echoes*, and sandhi and rhythmic patterns, frequently in CVCV units. These enable easy integration of reduplicated forms into Telugu phonetics. Repetition of sounds may create alliteration or rhyme, improving meaning, aesthetics, and memorability. Reduplications in idioms, folk phrases, and poetry are due to this.

6.5 Morphological Functions

The Telugu term reduplication is morphological. Echo word creation and other reduplication are considered morphology by linguists. Reduplication in Telugu creates new words and phrases with subtle meanings, unlike inflectional morphology, which changes tense, number, and other properties.

6.6 Productive Compounding:

Reduplication lets speakers spontaneously form compounds. Reduplication is flexible enough to work on nouns, verbs, adjectives, pronouns, and numbers. Reduplication created an echo compound to meet the communication need. *cūḍuta* → *looking* may be repeated as *cūḍuta-cūḍuta/custu-custu* → *while continuously looking*. Word creation spontaneously shows reduplication's morphological purpose.

6.7 Deriving Intensifiers and Distributives

Reduplication may provide intensifiers from adjectives or adverbs. Telugu may use the intensifier *mellaga mellaga* → *very slowly or slowly, slowly* for emphasis. Numerals may be used to produce distributive adjectives, such as *okkaṭi* - *okk-okkaṭi* → *one-one each*. Copying creates multiple or distributive morphemes. Reduplication operates like an affix or clitic in Telugu, but instead of using a fixed form like *each* or *very*, it copies to express those meanings. Telugu reduplication creates

new lexical items with meanings not articulated by simple affixes or words. This technique is essential to word construction, helping speakers generate complex sentences from basic words.

6.8 Syntactic Functions

Reduplicative constructions also play distinct roles in Telugu syntax. Often, reduplication yields a compound having a modified role that serves as a sentence unit. Doubled participles may be adverbial clauses. In the example, the term *naḍustū-naḍustū* - *walking walking* works as an adverbial modifier to *paḍipōyāḍu*-fell down, indicating *while walking*. Using participial reduplication instead of a subordinate phrase, Telugu often express simultaneous or background events. Reduplication of nouns or pronouns may distribute grammar, as shown in the phrase *each one-one-prati okaṭokaṭi* → *each one individually*. Telugu word ఒక్కొక్కటి means *one (item) to each*.

In this context, *okk-okkaṭigā* - *one-one*, is a distributive adjective or adverb formed by reduplicating *okkaṭi*- *one*. This structure lets Telugu efficiently express *each or every* by reduplicating numerals or quantifiers. By collectively modifying a noun, adjectival reduplication changes grammar. For example, మంచి మంచి- *manchi manchi* → *means all sorts of good or many good*. The reduplicated adjective *manchi manchi* intensifies and pluralises *good* to emphasise the noun's diversity or richness. Reduplication leads to compounds having a coherent syntactic purpose in grammatical categories. The compound *rāyi-rappa* → *stones and pebbles* become a single noun phrase in a sentence, using case suffixes as needed. Another example, *gusa-gusa* → *whisperingly*, is also a unified adverb. Reduplication creates complex words that may substitute basic words in phrases with different meanings. Telugu grammars can group reduplicated forms with compound nouns and adjectives, suggesting a cohesive lexicon.

Another syntactic factor is courtesy and colloquialisms. Echo word reduplication may replace direct objects or subjects informally. A clause may include to indirectly refer to an item. Using specific words instead of echoing is common in formal speech. In casual speech, echo forms are syntactically allowed and generally sound more natural for indefinite or wide references.

In formal circumstances, Telugu may avoid echo words and use alternative constructs like *adi -that thing or illānti-allānti* → *such-and-such* to maintain formality. Duplication, especially echo forms, implies a formal-to-colloquial register and syntactic style change.

Telugu reduplication creates compound modifiers, distributive phrases, and clause equivalents. This method reduces subordinate clauses and quantifier words by adding meaning to a reduplicated unit. Telugu syntax becomes more concise and rhythmic.

7 Cultural and Areal Influences

7.1 Telugu

Sanskrit loanwords affect echo reduplication

Example: ఫలం-ఫలం – *phalam-valam* → *fruits as such*.

7.2 Hindi

Persian-Arabic loan blends

Example: शकल-मकल – *śakl-makl* → *appearance as such*.

8 Conclusion

Reduplication in Telugu and Hindi illustrates their linguistic origins: Telugu exhibits gemination and case-inflected reduplication, whilst Hindi demonstrates vowel flexibility and compounding. Both languages use reduplication for intensity, dispersion, and mimic expression, highlighting common cognitive mechanisms. Reduplication is a crucial morphological process in both Telugu and Hindi, enhancing both languages by

introducing expressiveness, emphasis, and nuanced meaning differences. Both languages use complete and partial reduplication, although the distinct patterns and applications reveal distinctive qualities that reflect their linguistic and cultural settings. Reduplication in Telugu and Hindi exemplifies both universal trends and language-specific regulations influenced by their phonological frameworks (Dravidian vs Indo-Aryan). Academic publications by Abbi (1992), Krishnamurti (2003), and Kachru (2006) provide substantial foundations for the analysis of these patterns.

While both languages use reduplication for similar functions, Telugu exhibits stricter phonological rules. For instance, Telugu often geminates consonants in partial reduplication *meli* → *mel-melli*, whereas Hindi allows freer vowel alterations *chota* → *chote-mote*. Additionally, Telugu reduplication frequently integrates with case markers పుస్తకాల-పుస్తకాల-*pustakālu-pustakālu*, →books and books, Hindi compounding is inflectional-free. This cross-linguistic resonance shows that reduplication is built into the region's communication style, maybe inspired by Urdu/Hindi in Telangana, which uses labial echoes or other patterns. Reduplication in Telugu intensifies, generalises, and distributes, forms adverbial modifiers and distributive phrases, generates new compound words and derivations, and improves rhythm and phonology. Future studies may investigate dialectal variances or the function of reduplication in bilingual discourse.

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Speech Errors as Evidence for Language Processing: A Descriptive Linguistic Study

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ABSTRACT

Linguists and cognitive scientists have frequently studied speech errors as a window into how the human language production system functions. Due to the speed and automaticity of these processes, errors occur and they could offer important information about the underlying cognitive processes at operation. Thus, the aim of the current study was to understand – a) Does the concept of ‘speech error’ exists in ancient Indian knowledge system, b) What are the different types of Speech errors and c) Do errors differ at different levels of processing. Using the secondary sources information related to the above objectives of the study data was collected. Review on (a) revealed that in the Ancient Indian knowledge system, Panini made a reference to badly pronounced or mispronounced words which he referred to as /mlecchita/. While, ‘Sivasutras’, described the sequencing of phonemes (speech sounds) that are arranged for production ; in ‘Manusmriti’, description on how the sounds were being represented from oral tradition to written scripts and the possibility of being mispronounced or misarticulated has been mentioned. However, the concept of ‘Speech Errors’ was not described. The Review on (b) revealed that, errors are systematic and rule governed. The types of errors were mostly in terms of Substitution, Addition, Omission and Transposition of sounds or mixed errors and were Language specific. In conclusion, it was noted that the different types of speech errors were seen at different levels of production (c). Speech errors also showed that Language is not modular or static but a dynamic interactive process. Thus, it can be noted that the Descriptive Linguistic Approaches do take into account the Language Processing accounts. These findings have both clinical and theoretical implications.

Keywords: *Indian Knowledge System, Language Processing, Speech Errors, Cognitive Processes*

1 Introduction

Speech production is a process by which the thoughts are translated into speech. The brains coordinate a wide range of

complex processes when speech production occurs, such as choosing the right words, arranging them into grammatical structures, and producing sounds. However, during the process errors can be seen to occur. Speech errors provide an abundance of information about the cognitive processes involved in language creation and processing; they are not just random mistakes.

1.1. The Process of Speech Production

Duffy (2000) noted that Speech production has been characterized as one of the most complex motor skills, functioning as multiple subsystems that must effectively coordinate together. Whereas, Speech perception relies on the auditory system in which acoustic signals are transformed into meaningful representation of spoken language (Gandour & Krishnan, 2016). Baghai-Ravary & Beet (2013) noted that even with the advent of technology, the neural processing required for speech production and perception is still only partially understood. The scope of the current article is limited to the production process only.

Various Speech Production Models have been proposed to account for how the humans produce spoken language. Some of them are –

- a. Linguistic Model: This model focuses on the abstract linguistic knowledge needed to generate sentences. It involves syntax, semantics, and phonology (Levelt, 1989).
- b. Cognitive Model: This model examines the mental processes involved in producing speech, including conceptualization (forming ideas), formulation (structuring sentences), and articulation (Roelofs, 1992).
- c. Motor Control Model: This model emphasizes the physical aspects of speech production. It looks at how the brain coordinates the movements of the vocal

apparatus, including the tongue, lips, and vocal cords (MacNeilage, 1998).

- d. Dynamic Systems Model: This approach considers speech production as a dynamic process that evolves over time. It emphasizes the interaction between different systems (linguistic, cognitive, and motor) and how they adapt during speech (Smith & Goffman, 2005).
- e. Connectionist Models: These models use neural networks to simulate how language is produced. They focus on how various linguistic elements connect and influence each other during speech production (Elman, 1990).
- f. Levelt's Model: This model outlines the stages of speech production, including conceptual preparation, lexical retrieval, syntactic planning, and phonological encoding, leading to articulation (Levelt et al., 1999).

Each model contributes to the understanding of the complex processes involved in producing speech, highlighting different aspects of language and communication. However, this paper is based on the Garrett's theory (2001). The theory states that the speech production process can be divided into four stages: (a) Activation of lexical concepts, (b) selection of lemmas needed, (c) morphologically and phonologically encoding the speech, and (d) finally, the phonetically encoded word is spoken.

The following figure represents the different stages.

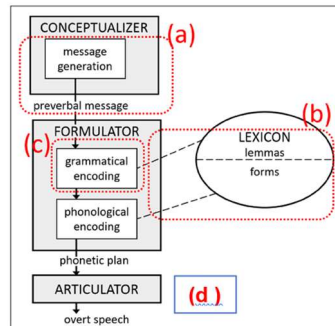


Fig 1. Stages of Speech Production (Levelt, 2001)

For the purpose of analysing the speech errors, in this article, the above model has been considered.

1.2. Contexts of Speech Production

The different surroundings and circumstances that affect how and why humans develop spoken language are referred to as the contexts of speech production. These situations can have a big impact on speech's correctness, style, and content. Speech production, thus can happen spontaneously such as in a conversation (both formal and informal), reactive speech such as naming a picture or reading aloud a written word, or imitative, such as in speech repetition. During these productions, speech errors can be seen to occur. Understanding the various contexts of speech production is crucial for analysing communication processes and improving Language Teaching, Therapy or Interpersonal Interactions.

1.3. Defining a Speech Error

Many authors have defined Speech Errors but, in this study, the definition given by Fromkin for his seminal work on speech errors is being considered as a reference. Fromkin explores the nature of speech errors, categorizing them and discussing their relevance to theories of language processing.

Fromkin (1971) defined speech errors as mistakes made during the process of speaking, where a speaker unintentionally produces incorrect sounds, words, or phrases, often leading to

an unintended or non-grammatical outcome. These errors can involve various aspects of speech production, including phonological, lexical, syntactic, or semantic components.

1.4. Causes of Speech Errors

Speech Errors can be caused due to various factors like

- a. **Structural Factors:** Errors can be caused due to structural deformities of the speech production mechanism. For eg. Cleft Palate or Tongue Tie children
- b. **Cognitive Processing:** The process of retrieving words, assembling them into sentences, and articulating them is complex. Errors can occur at any stage of this process, often due to distractions, stress, or fatigue.
- c. **Neurological Issues:** Neurological conditions like aphasia (caused by brain injury or stroke) or Parkinson's disease can lead to speech errors.
- d. **Developmental Stages:** Children often make speech errors as part of language development.
- e. **Psychological Factors:** Anxiety, stress, or pressure can interfere with speech production, causing errors. For instance, in public speaking or fast-paced conversations, people are more prone to errors.
- f. **Bi or Multilingualism:** The influence of L1 on L2 can result in Speech Errors.
- g. **Freudian Slips:** Speech errors in Freudian slips are often seen as revealing unconscious thoughts, desires, or repressed emotions.
- h. **Contextual Errors:** Usually, these errors occur where the source is inside the utterance. These include anticipations, where the error intrudes from the future ('cup of coffee' → 'cuff of coffee'), perseverations, where the error intrudes from the past ('Chomsky and Halle' → 'Chomsky and Challe'), and exchanges (also

known as metathesis or spoonerisms), where two elements swap places ('the zipper is narrow' → 'the nipper is zarrow').

2 Methodology

Information pertaining to the aforementioned study objectives was gathered through the use of secondary sources, including books and articles that have been reviewed at IAS digital depository. A total of 36 articles were reviewed, out of which, 12 articles were selected that matched to the inclusion criteria. Three books pertaining to Indian Knowledge system were also reviewed.

3 Findings

Natural speech is full of mismatches between intention and output. Slips of the tongue are errors involving the sounds or words of the language, and provide a window onto the processes of speech production. The findings are discussed in relation to the three objectives taken for the current study. The information pertaining to the first objective was collected from the three books reviewed on the Indian Knowledge System. While the information pertaining to the second and third objective were collected from the 12 articles reviewed for the said purpose.

3.1 The concept of 'Speech and Speech Errors' in Indian Knowledge System

Paninian Grammar described the enormous rules for sound, word and sentence formations. Spoken language is the basic nature of human existence, which has been transmitted through oral traditions in the Ancient India.

Sen (1970) notes that Panini's grammar sutras in 8 chapters was the greatest force in the formation of classical Sanskrit language. He also noted that there is no mention of Language in general or a Language in particular in any of the sutras. The only reference to the phenomenon of 'Speech' was in Sutra 1.3.48 as */vyakta vacam samuccaraNe/* - to utter a well-articulated speech. Here */vac/* - denoted only the faculty of 'Speech' or the

phenomenon of speaking. It was also personified as the supreme spirit that binds all the being together and guides even the highest of the gods (RV 10.125). In the later Vedic tradition, the stature of /vac/ was considerably reduced. Speech is inherent to the faculty of man and has been from the beginning of his creation or evolution. He also noted that as per Paninian grammar 'Language' was 'Speech' whatever may be its composition and texture. The matter of speech described or analysed by Panini was mainly literary. Panini also makes reference to Vedic literary and non-Vedic literary works. There was no distinction made between written and spoken language or between learned vs ordinary speech. However, reference was made to badly pronounced or mispronounced words which he referred to as /*mlecchita*/.

Sen (1970) also noted that /*bhaSh*/ does not occur in Rig Veda but is an old extended root form having Indo-European origin which was attested in Balto-Salvic and Germanic branches. The root /**bhel-*/ got changed into /**bhel-no-*/ to /**bhel-s-*/ - meaning to utter continuous sound, bark, roar. While /**bhel-s-*/ into /*bhaSh* - to bark/ probably which later changed to / *bhes* - to argue/ in Hindi. Another form /*bhaaSh*/ – to tell, address, announce/ probably which later changed to / *bhaasha*/ in Hindi. The distinction between literate (Arya) and illiterate (*apabhraShta*) speech was done a few centuries later by Patanjali. It was noted that, '*Sivasutras*', described the sequencing of phonemes (speech sounds) that are arranged for production. The Siva Sutras provide a profound connection between phonemes and spiritual realization. The correct use of sound, particularly through mantras and syllabic combinations, is viewed as a powerful tool for transforming one's consciousness and attaining union with the divine.

While '*Manusmriti*' (Mittal), essentially promotes speech that is sincere, unambiguous, and intentional while subtly cautioning against mistakes that skew communication or injure others. This is consistent with the larger Hindu notion that sound, or 'Vak', has the ability to influence both individual and societal reality.

The possibility of being mispronounced or misarticulated sounds when being represented from oral tradition to written scripts can also be noted. Thus, it can be noted that there was no reference to 'Speech errors', as considered in the current context.

3.2 *Classification of Speech errors*

Works related to speech errors can be seen to be documented in literature as early as late 19th century.

Mayer and Meringer (1890) played a significant role in the study of speech errors, which laid the foundation for modern theories of language production errors. They were also among the first to systematically document such errors. They described the two main categories of speech errors - 'Versprechen' (slips of the tongue) and 'Verlesen' (slips of reading) in German speakers. They also proposed three distinct sources of error: (i) interference from intended elements of the utterance (Plan Internal Errors); (ii) interference from an alternative formulation of the intended thought (Alternative Plan Errors); (iii) interference from an unintended thought (Competing Plan Errors). Thus, their research laid an important groundwork for later studies in psycholinguistics and cognitive science.

According to Harley (2006) errors can be classified according to the units of speech (e.g., phoneme, word, or phrase) and the mechanisms (e.g., exchange, substitution, anticipation, or perseveration) involved.

Speech errors based on linguistic classification can be noted as follows -

- a. Phonological errors: Mistakes in sound production, such as mispronunciations or transpositions of sounds (e.g., saying "babbit" instead of "rabbit"). In individuals with neurological language impairments (for eg. Aphasia) such errors are labelled as phonetic paraphasia. These errors occur when a person alters or replaces sounds while speaking, producing words that may sound similar to the intended term but are incorrect.

- b. Lexical errors: Incorrect word choice or using a word that doesn't fit the context (e.g., saying "elephant" when you meant "giraffe").
- c. Syntactic errors: Problems with sentence structure, such as missing words or incorrect word order (e.g., "I went store to" instead of "I went to the store").
- d. Semantic errors: Using words that don't convey the intended meaning, often mixing up related but different concepts.

3.3 Errors at different levels of processing

Based on Garrett (2001) model of speech production process can be divided into four stages: (a) Activation of lexical concepts, (b) selection of lemmas, (c) morphologically and phonologically encoding the speech, and (d) finally, phonetic encoding of the word.

The following errors that can be noted at different levels of speech production –

- a. At the Conceptual Level: Speech errors arise in the early phases of speech production, when concepts and meanings are developed before being converted into language structures. These mistakes can reveal information about the mental operations that go into producing language. The exchange of words within syntactic categories can be seen, for eg. “We completely forgot to add the *list* to the *roof*” (Dell, 1986). They can also occur as Malapropisms errors where a speaker uses a word that sounds similar to the intended word but has a completely different meaning. Sometimes Planning Errors can also be seen where the speaker fails to organize their thoughts correctly.
- b. At the lemma selection Level: The lemma selection level in speech production refers to the stage where the speaker selects the appropriate word or lemma (the abstract representation of a word that includes its

meaning and grammatical information) before it is phonologically encoded and articulated. These mistakes imply that both syntactic and semantic elements are involved in the lemma selection process. They show how language and word relationships are represented in the speaker's mind. The desired term may be momentarily confused with similar words when a speaker retrieves a lemma, which could result in mistakes. The speech errors can occur as wrong word selections, for eg. “*cat*” in place of “*dog*”

- c. At morphological Level: At the morphological level in speech production the speakers assemble the internal structure of words, including prefixes, suffixes, and root forms, before producing speech. Speech errors involving morphemes effect the lemma level or the wordform level, for eg. “... *slicely thinned*” (Stemberger, 1985). Errors can also occur as Overgeneralization Errors for example Saying “goed” instead of “went” or “mouses” instead of “mice.” Or Blend Errors like ‘calking’ – mixing ‘calling’ and ‘asking’ (Bertram, et. al., 2000).
- d. At the final Phonetic Level: Errors at this level occur when there are mistakes in the pronunciation of sounds, leading to unintended verbal output. The phonetic level in speech production refers to the stage where sounds are physically articulated. Errors at this level can be caused by a variety of variables, including the speaker's familiarity with the words, speaking rate, and cognitive overload. The errors can occur as Sound Substitution, for example saying “pasketti” instead of “spaghetti,” (Dell, 1986). or Speech errors represent the actual articulated speech, for eg. For “*tiger*” – may be articulated as “*giger*” / “*titer*” / “*diger*”.

4 Discussion

Psycholinguistic models aim to bridge the gap between linguistic theory and cognitive science, offering insights into

how humans are able to process complex linguistic input in real-time like those occurring in speech errors.

Dell (1986) proposes that the mental lexicon functions through a network of interconnected nodes representing words, morphemes, and syntactic structures. When a speaker intends to produce a sentence, activation spreads from the intended concept through this network. Dell discusses various types of speech errors (e.g., substitutions, omissions) that can occur during sentence production. These errors often reflect the spreading activation process, where related words may inadvertently become activated and interfere with the intended output.

Vaidya (1993) explored the various aspects of speech errors specific to Kannada, a Dravidian language. She noted that errors may occur more frequently in certain linguistic contexts or with particular types of words, indicating that speakers mentally organize their speech in a way that is influenced by the phonological, syntactic, and semantic properties of the language. Vowel omissions, consonant substitutions, ordering of syllables and vowels, were the errors seen in Kannada, which were not found in other languages.

Berg and Abd-El-Jawad (1996) noted that speech errors by Arabic speakers were exhibited as rearrangement of the segments within a root morpheme far more frequently than speech errors by English speakers or German speakers who tended to rearrange the segments within a word.

They suggested that word-internal root consonant rearrangement errors in Arabic apply at the consonantal root level of representation, which was the level that was specific to the morphology of root-and-pattern languages. These findings provide evidence for the psychological reality of the Arabic root-and-pattern morphological structure. Whereas, Chen (2000) examined speech errors in Chinese, which has a limited phonological inventory as compared to English, which reduces the need for sub-syllabic units in the analysis of Chinese.

Therefore, it's possible that Chinese speakers break down information in syllable-sized parts. The Chinese writing system likewise utilises chunks the size of syllables. Thus, syllable unit errors are likely to be more frequent in Chinese than in English. The study also found that syllable errors do occur relatively frequently in Chinese, and at a rate that is higher than predicted from analysing syllable errors as errors involving multiple sub-syllabic units.

Levelt, et. al. (1999) theory of lexical access provides a detailed framework for understanding the complexities of word retrieval in speech production. It emphasizes the sequential nature of the processes involved, contributing significantly to the fields of psycholinguistics and cognitive science.

The paper by Bertram, Baayen, and Schreuder (2000) investigates how morphological decomposition occurs in the mental lexicon during language processing. The authors propose that complex words (those made up of morphemes) are processed by breaking them down into their constituent morphemes. This process allows speakers to access the meanings of words more efficiently. Evidence for the use of Phonological Constituents as units in Language Processing for errors made during speech production were noted by Frisch (2006). Speech error data supported the psychological reality of many of the abstract structures proposed in phonological theory (e.g., feature, segment, onset, rime) and phonotactic constraints on their combination.

These studies highlight how speech errors give evidence for Universal Principles of Language Processing that might manifest differently across languages, depending on their Specific Linguistic Structures.

5 Conclusion

Language can be seen as an autonomous intralinguistic system of relations between different levels of processing. Analysis of speech errors shows that production occurs in stages, with

content words and function words being accessed at different stages, with some interaction between levels of processing. Thus, error patterns provide insights to identify how the brain organizes language and the processes involved in speech production and comprehension. Thus, researchers can understand and deduce the Phases of Speech Processing, The Structure of The Mental Lexicon, and the interactions between the various Linguistic Levels (syntax, semantics, and phonology), by examining the Errors produced in the process of Speech Production. By analysing the types and patterns of errors, researchers can gain insights into the mechanisms behind language production, such as how words are chosen, ordered, and articulated. The psychological validity of many of the abstract structures (such as feature, segment, onset, and rime) laid down by phonological theory, as well as the phonotactic restrictions on their combination, are supported by speech error data. Speech errors have proven to be a rich source of data on the organization of linguistic representations in the mind/brain, as well as on the time course of language production. Certain kinds of speech errors can be experimentally induced, but these are limited and their ecological validity is questionable. Recent trends reflect ongoing interest in the intersection of Technology, Neuroscience, and Linguistic Theory in the understanding of speech production and errors.

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Construal of Attitudinal Meanings by Mizo tones: an SFL study of Polar Interrogatives

Laltleipui

&

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ABSTRACT

This study examines the interpersonal function of tone in Mizo, a Tibeto-Burman language, spoken in northeast India. Using the systemic functional model of intonation, we explore how Mizo speakers convey attitudes such as politeness, incredulity, and anger. Unlike English, *Mizo lacks a neutral tone for mood types, complicating the mapping between semantics, grammar, and phonology. An acoustic analysis of 10 polar interrogatives by 7 native speakers, conducted using PRAAT, reveals that Mizo uses seven polar elements, consistently placed clause-finally. The tone of these elements shapes the overall pitch contour, as the tonic syllable always falls within them. Findings suggest that speakers convey attitudes through subtle pitch variations, tone shifts, and changes in duration or intensity. This study contributes to our understanding of the interpersonal function of tones in Mizo and highlights the complexity of tone languages in conveying attitudinal meanings.*

Keywords: *Mizo Tones, Polar Interrogatives, Attitudinal Meaning, Mood, Systemic Functional, Polar Elements, Praat, Interpersonal Function*

1 Introduction

Intonation “is a means of saying different things” and “if you change the intonation of a sentence, you change its meaning” (Halliday, 1970:21). The “succession of melodies” (Halliday 1970:6) of spoken language “collaborate with other linguistic choices and resonate with grammatical, semantic, and contextual features during the act of meaning” (Bowcher and Debashish 2019:172). Thus, while the choices within the systems of TONALITY (the information distribution) and TONICITY (the focus of information) realize the textual function of a language, the choices in the TONE system realize

the interpersonal function, i.e., the mood, modality and ‘key’ (speaker’s attitude of ‘politeness’, ‘assertiveness’, ‘indifference’, etc.) aspects.

This paper focuses on the interpersonal function of Mizo tones, which is best studied using the trinocular perspective of Systemic Functional Linguistics (SFL), i.e., through examining how the system of TONES realizes the system of MOOD to construe the system of KEY in different contextual situations of language use. Consequently, a comprehensive understanding of the interpersonal function involves examining: (1) clause Mood types at the lexicogrammatical level, (2) their semantic role in construing speech functions, and (3) their realization in phonology through primary tones (meaningful pitch contours). Additionally, it's important to understand how speakers express their attitudinal (KEY system) meanings, which involves establishing the system for meaningful secondary pitch contours as well. Are they lexicogrammatical? Phonological? Or, both? The central hypothesis is that, beyond specific polar elements, Mizo speakers vary the pitch contours of primary tones to encode attitudes in different contexts of situations.

2 Tone in Mizo

Mizo assigns distinct meanings to each syllable based on its tone. This complicates the identification of a single neutral tone for a particular Mood type, or its associated Speech Function, or attitudinal meaning in the semantic layer. Consequently, the exploration of the interpersonal function of Mizo tones is intriguing and complex, particularly when examining how attitudinal meanings are phonologically realized.

2.1 Mizo Tone at Word Rank

The tone system of Mizo has long been debated concerning the number and type of tones.

Some scholars have proposed a four-tone system (Remkunga, 1990; Buchhawna, 1964; Fanai, L., 1989, 1992), while others argue for a six-tone system (Zuala, R., 1975; Dokhuma, J., 2006;

Sangkhuma, 2009). Although Fanai retains the four-tone framework, she introduces an additional Extra-Low tone. This study adopts the tonal system put forward by Laltleipui et al. (forthcoming), which builds on and modifies L. Fanai's analysis by incorporating level, contour, and complex tones, which are as follows:

- 1) Level¹ – Mid Level
- 2) Contour – a) Mid to Low
b) Mid Low/Low to Low
- 3) Complex – Fall Rise

Altogether, there are four tones, two phonetically realized with a falling contour. This study adopts the following notation system, drawing on the frameworks proposed by Moira Yip (2002), Chao (1930), and Halliday (1970):

tone description

Tone 1: 'Level' – Mid Level [33]

Tone 2: 'Contour' – Mid to Low [31]

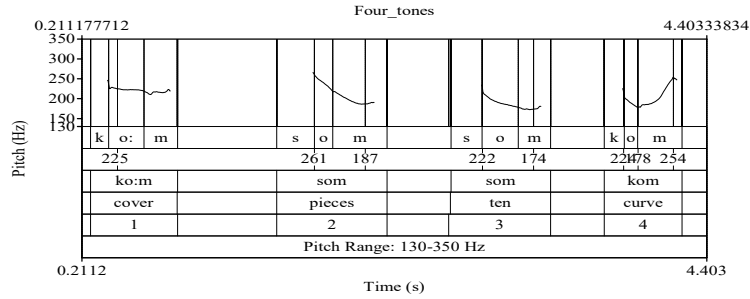
Tone 3: 'Contour' – Mid Low/Low to Low [21] or [11]

Tone 4: 'Complex' – Fall Rise (Mid-Low to Low, Low to Mid) [213]

As exemplified in Figure 1 below, Tone 1 is level at mid pitch (*ko:m* 'cover'), Tone 2 is a falling contour from mid to mid-low (*som* 'pieces'), Tone 3 is also a falling contour but from mid-low to low (*som* 'ten'), and Tone 4 is a complex pitch movement, first falling from about mid to mid-low, and then rising to mid pitch (*kom* 'curve').

¹ In Mizo, the only level tone observed is at Mid pitch rather than at High pitch, in contrast to what Fanai (1989, 1992) proposes.

Fig 1: The four Mizo tones realizing the words *ko:m* ‘cover’, *som* ‘pieces’, *som* ‘ten’, and *kom* ‘curve’.



2.2 Mizo Polar Interrogative Clause

Before delving into the data, it is essential to understand the following aspects related to polar interrogative clauses in Mizo: the mood structure (specifically the Subject-Finite relationship), the polar elements and how they are phonologically realized, and the placement of the tonic syllable within a tone group.

2.2.1 Mood structure of a polar interrogative clause

Mizo polar interrogatives can be formed from a declarative clause by simply adding the polar element in the clause-final position without altering the structure of the clause. Unlike English (Halliday & Matthiessen, 2004:115), the Mood type of a Mizo clause is not determined by the order of Subject and Finite elements but by the distinct interpersonal polar elements that are specific to each Mood type. For instance, while the Mood structure of an English polar interrogative is ‘Finite ² Subject’, as in ‘Are you going to take a bath?’, the corresponding clause in Mizo is,

I	Inbual	dO:n	em?
You	take bath	going to	Q
Sub.	Pred.	Fin. (tense)	Pol. ele.
<i>Are you going to take a bath?</i>			

² ‘^’ is read as ‘followed by’.

This is the most common clause structure ((Subj ^ Predicate ^ Finite (tense, polarity) + Polar element)), where the finite is not mapped onto the verbal element. If the finite is mapped onto the verbal element, then the structure of the clause is 'Subject ^ Predicate (Finite+Verb) + Polar element', as in

I	eI	em?
<i>You</i>	<i>eat</i>	<i>Q</i>
Sub.	Pred.	Pol. ele.

Did you eat?

Further, a polar interrogative clause can also operate without a predicator, as in

uI	hI	I	ta	amI?
<i>dog</i>	<i>this</i>	<i>you</i>	<i>indicate ownership</i>	<i>Q</i>
N	det.	Sub.	Adj. / pro.	Pol. ele.

Is this dog yours?

or,

I	buaI	em?
<i>You</i>	<i>busy</i>	<i>Q</i>
Sub.	Adj.	Pol. Ele.

Are you busy?

2.2.2 Polar elements

Based on function, the Mizo polar interrogative clauses can be categorized into two types: 'confirmative' and 'alternative' polar interrogatives. This paper focuses exclusively on confirmative polar interrogatives. As is evident, the speaker seeks the addressee's confirmation through a confirmative interrogative, which can be realized by polar question elements, such as *em:*, *em ni* or *a mi*, *elaw:*, *amaw:*, *angem*, *na nge*, *ti raw:*, and *anilawm'ni:* (the last two being question tags). The following examples illustrate how these different polar elements combine with the clause '*a kal*' to form polar interrogative clauses.

1. *em* / *em* /

<i>a</i>	<i>kal</i>	<i>em?</i>
Subj.	Pred.	Pol. ele.

He go
Is he going? Did he go?

Em: is the most frequently used Polar element realized with tone 4, both in formal and informal contexts. When a speaker uses this element to request information, it indicates that they have no prior knowledge of the information being sought.

2. *em ni* / *emni* / or *a mi* / *ami* /

<i>tso</i>	<i>a</i>	<i>ei</i>	<i>em ni</i> , or <i>a mi</i> ?
N	Sub.	Pred.	Pol. ele.

Food he eat
Is he eating food? Did he eat food?

Em ni is used (in formal and informal contexts) dominantly by the earlier generations, and is still generally considered to be the correct or more acceptable version of the two³. These elements are used when the speaker has some precedent knowledge, or is expecting a certain answer. Both the polar elements are realized with tone 3 on the second syllable.

3. *elaw* / *elO*: /

<i>a</i>	<i>kal</i>	<i>elaw?</i>
Sub.	Pred.	Pol. ele.

He go
Is he going? (He is?) Did he go? (Did he?)

Elaw: is an element that construes the specific attitude of 'surprise' and is realized with tone 3 on the second syllable. It

³ *a mi* is the result of the historical development of the polar element *em ni*. Due to ease in pronunciation, *a mi* has become more dominant in usage among the current generation. However, *em ni* is still used in formal situations such as church gatherings or conferences.

is not used in strictly formal situations as it requires some special contexts of situation to express ‘surprise’.

4. *amaw* / amO:/

<i>a</i>	<i>kal</i>	<i>amaw?</i>
Sub.	Pred.	Pol. ele.
He	go	
<i>He went?</i>		

Similar to *elaw*, *amaw* is not used in formal contexts, and it construes not one but two specific attitudes: (i) a ‘resigned’ or ‘disappointed’ attitude which is realized with Tone 2, and (ii) an ‘incredulous’ or ‘surprised’ attitude which is realized with a high-pitched Rising tone. So, the selection of tone to realize this element is based on the contextual attitude being construed.

5. *angem* / aŋem /

<i>a</i>	<i>kal</i>	<i>angem?</i>
Sub.	Pred.	Pol. ele. (future)
He	go	
<i>Will he be going?</i>		

aŋem is an interrogative element conflated with the future aspect marker. It is a combination of *ang* indicating future tense, and *em* the polar interrogative element. Hence, this element constitutes the unmarked polar element for the future tense. Since it is a combination of a future aspect marker and polar element, it is realized with tone 4 (fall rise), the tone of the polar element *em* the second syllable in the word.

6. *na nge* / na ŋe /

<i>a</i>	<i>kal</i>	<i>na nge?</i>
Sub.	Pred.	neg. Pol. ele.
He	go	
<i>He/she didn't go.</i>		

Na nge: is an interrogative element that expresses a polar negative clause in Mizo.

7. *ti raw* / tIrO: /

a	kal	tɔ:/ta	ti raw?
Sub.	Pred.	Fin.	Q tag ele.
He	go	already	
		(past)	
<i>He has already gone, right?</i>			

8. *anilawm'ni* / anIlO:mnI /

a	kal	tO:?	anilawm'ni?
Sub.	Pred.	Fin.	Q tag ele.
He	go	already	
		(past)	
<i>He has already gone, hasn't he?</i>			

As mentioned earlier, *ti raw* and *anilawm'ni* are question tags. The response to this type of polar interrogative would be either a positive or a negative declarative clause. Unlike English, in most situations in Mizo society, a simple 'yes' /ɔ:/ or 'no' /a:I? / response would not suffice as it would be deemed very rude to give a monosyllabic answer to a Polar interrogative.

The following is an attempt to represent polar elements and the tones which realize them in a system network following Halliday's network system:

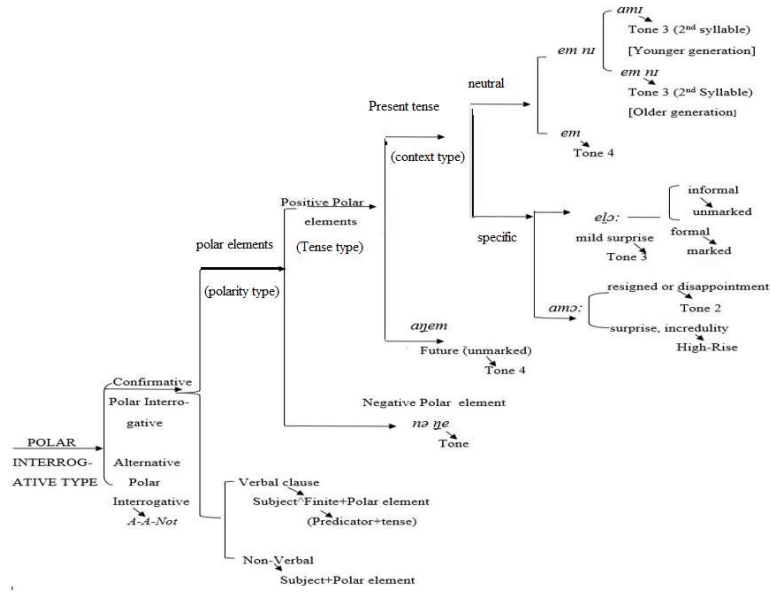


Figure 2: A system network of POLAR INTERROGATIVE MOOD in Mizo.

2.2.3 Tonic syllable in a polar interrogative clause

In Mizo, the pitch contour of a tone group is determined by the tone of the last syllable in the tone group, irrespective of the Mood type of the clause. Therefore, as a polar element obligatorily occurs at the end of polar interrogative clause, for instance,

// i inbual dawn **EM** //
Are you going to take a bath?

it functions as the tonic syllable in the tone group. Consequently, the tone of the polar element *em* (tone 4: fall-rise pitch contour) determines the tone of the tone group.

3 Methodology

3.1 Informants

Seven female students from EFL University, aged between 25 and 30, were selected as informants for this study. All

participants are native Mizo speakers with clear expressive abilities. Female speakers were exclusively chosen based on findings from a pilot study, which indicated that male speakers had difficulty expressing certain attitudes—such as ‘pampering’—effectively.

3.2 Data

This study is based on ten simple clauses (labeled Y1 to Y10) of the polar interrogative mood type, each capable of occurring in specific situational contexts to convey three or more target attitudinal meanings. Notably, the selected clauses incorporate only the basic polar elements—*em*, *ami*, *amaw*, and *elaw*—each of which is associated with a distinct tonal realization⁴.

1. Y1I *inbual* *dawn* 4⁵*em*?
 Sub. Pred Fin. Pol.ele.
 You taking bath going to
 Are you going to take bath?
2. Y2 *Kawr* *hi* *I* *la* *dawn* 4 *em*?
 N det. Sub. Pred. Fin. Pol. Ele
 Shirt this you take going to
 Are you going to take this shirt?
3. Y3 *Meizial* *an* *zu* *a2maw*?
 N Sub. Pred. Pol. ele
 Cigarette they smoke
 They smoke cigarettes?
4. Y4 *Ui* *hi* *i* *ta* *a3mi*?
 N det. Sub. Adj. Pol. Ele.
 Dog this you indicates ownership
 Is this dog yours?
5. Y5 *I* *lo* *mu* *e3law*?

⁴ The data does not include the following polar elements: *angem* /≡Nem/ (future), *nange* / na ɲe/ (negative), *tiraw* /tIrO:/ and *anilawm'ni* /anIlO:mnI/.

⁵ The numbers 2, 3, and 4 refer to the Mizo tones (see Fig. 1).

- | | | | | | | |
|-----|-----|--------------------|-------------|---------------|--------------|-----------|
| | | Sub. | Ver.part. | Pred. | Pol. | Ele |
| | | You | | sleep | | |
| | | Were you sleeping? | | | | |
| 6. | Y6 | <i>Hna</i> | <i>I</i> | <i>thawk</i> | <i>a3mi?</i> | |
| | | N | Sub. | Pred. | Pol. | Ele. |
| | | Work | you | doing/working | | |
| | | Are you working? | | | | |
| 7. | Y7 | <i>Thingpui</i> | <i>i</i> | <i>duh</i> | <i>4em?</i> | |
| | | N | Sub. | Pred. | Pol. | Ele. |
| | | Tea | you | want | | |
| | | Do you want tea? | | | | |
| 8. | Y8 | <i>Ruah</i> | <i>a</i> | <i>sur</i> | <i>a3mi?</i> | |
| | | N | agr. Mar. | | Pred. | Pol. Ele. |
| | | Rain | | | fall/pour | |
| | | Is it raining? | | | | |
| 9. | Y9 | <i>Lehkha</i> | <i>i</i> | <i>zir</i> | <i>a3mi?</i> | |
| | | N | Sub. | Pred. | Pol.ele. | |
| | | Paper | you | study | | |
| | | Are you studying? | | | | |
| 10. | Y10 | <i>I</i> | <i>buai</i> | <i>4em?</i> | | |
| | | Sub. | Adj. | Pol.ele. | | |
| | | You | busy | | | |
| | | Are you busy? | | | | |

3.3 Contexts of Situations

For each clause, situational contexts were carefully constructed to elicit specific attitudinal meanings. For example, in the case of the first polar interrogative (Y1),

I inbual dawn em?
Are you going to take bath?

the contexts were designed to bring out particular attitudes intended by the speaker, demonstrating how tonal variation and polar elements work together to convey nuanced interpersonal meanings.

1. Neutral

Context of situation: demanding information of the yes/no type

Speech function: Yes/No Question

2. Attitude: friendly/polite/affectionate

Context of situation: In this case, the speaker endeavors to be polite, friendly, and affectionate, for instance, when asking her guest if he/she wants to take a bath, or while addressing her grandmother.

Speech function: Yes/No Question

3. Attitude: irritated/annoyed/persistent/insistent

Context of situation: The speaker is about to take a bath when her sister interrupts, saying she needs to bathe first because she has to leave early. However, when the speaker notices her sister wasting time instead of heading to the bathroom, she gets irritated and urges her to hurry up and take her bath.

4. Attitude: anger

Context of situation: The mother has been patiently asking her child to take a bath, but after repeated refusals, she finally loses her temper. In an angry, commanding tone, she asks, "I inbual dawn em?" This rhetorical question is more of a direct order, implying that the child will face the consequences if he continues to disobey. It's her way of saying, "Go and take your bath right now!"

Similarly, contexts of situations were constructed for all 10 clauses, which were, later, rendered by 7 native speakers of Mizo. The recording sessions were conducted in the soundproof room of EFL University's Phonetics Lab using the CSL software. Later, the data was studied using PRAAT, a speech analysis software.

3.4 Attitudinal alternants

Each target clause can occur in certain contexts only; in other words, it can construe only certain attitudes, as the following table reveals.

Table 1: Target attitudinal alternants construed by ten (Y1-Y10) polar interrogative clauses.

Clauses	Attitude alternants					
	1	2	3	4	5	6
Set 1 Y1: <i>4em</i> Y2: <i>4em</i>	neutral (tone 4)	polite friendly affectionate	irritation annoyance insistence persistence	anger		
Set 2 Y3: <i>a2maw</i> ⁶ (statement question)					disappointed (tone 2)	surprised incredulous (high rise)
Set 3 Y4: <i>a3mi</i> Y6: <i>a3mi</i> Y9: <i>a3mi</i>	neutral (tone 3)	polite friendly worried concern	insistence persistence	anger		
Set 4 Y5: <i>e3law</i>	neutral (tone 3)	polite friendly worried	irritation annoyance	anger		

⁶ The polar element *a2maw* (Y3) is used only in specific contexts to indicate either ‘disappointment’ or ‘incredulity’. Therefore, no neutral instance is indicated.

		concern				
Set 5 Y7: <i>4em</i> Y10: <i>4em</i>	neutral (tone 4)	polite friendly	insistence persistence			
Set 6 Y8: <i>a3mi</i>	neutral (tone 3)	worried concern	irritation annoyance insistence persistence			

To facilitate analysis and discussion, the clauses are grouped into six based on the construal of attitudes as displayed in the above table. For instance, four polar interrogatives – Y1, Y2, Y7, Y10 – end with *4em* polar element, but they are grouped into two (Set 1 & Set 5), as Y7 and Y10 cannot be used in contexts for expressing ‘anger’, ‘irritation’, or ‘annoyance’.

4 Analysis: Phonological Realization of Polar Interrogative

This section begins by describing the phonological realizations of the 10 polar interrogatives in their neutral contexts. The analysis focuses on the acoustic features of each realization, including pitch movement, intensity, and duration. Following this, the phonological realizations of the target clause are compared across various contexts (which convey different attitudinal meanings) with those in the neutral context.

4.1 Neutral

Halliday (1970) states that the rising pitch contour indicates ‘uncertainty’ and the falling ‘certainty’. Therefore, in English, the neutral tone (unmarked realization) for a polar Interrogative is a rising tone, which construes the meaning of a ‘yes-no question’. However, this generalization of tones (and the

meanings that they construe) does not apply to Mizo, as it is a tone language. Further, in Mizo, the tonic syllable is always located in the last syllable of a tone group, which is the polar element in a polar interrogative. Consequently, the tone of the polar element determines the tone which phonologically realizes the polar interrogative clause. For instance, the polar interrogative - *Y1: I inbual dawn 4em?* is realized with tone 4, the tone of the polar element. Likewise, *Y4: Ui hi i ta a3mi?* is realized with a tone 3.

In the following sub-sections, the clauses are grouped according to the tone that realizes the polar element to facilitate discussion.

- (a) **Tone 3:** The polar elements *ami* (Y4, Y6, Y8 and Y9), and *elaw* (Y5) are realised with Tone 3, with the pitch falling from Mid-Low/Low to Low in the second syllable, as illustrated below.

(i). Y4: // ui hi I ta a / MI //

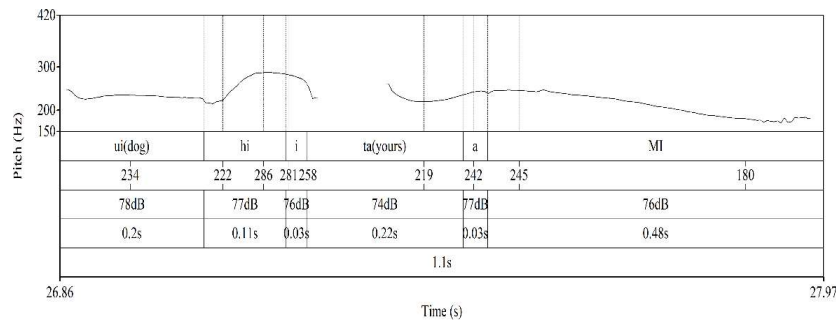


Figure 3: S2, Y4⁸ // ui hi I ta a / MI // ‘Is this dog

⁷ See Section 3.1 for glossing of all the clauses.

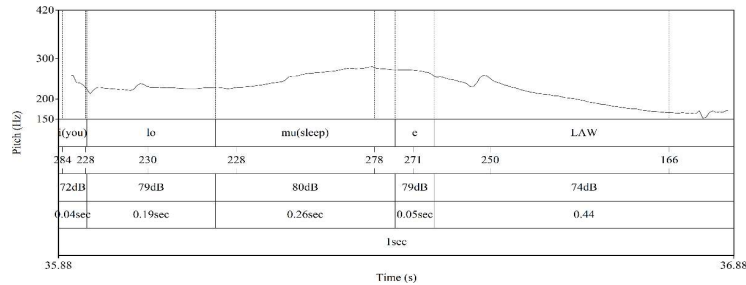
⁸ The speakers/informants are numbered S1 to S7, and the Yes/No interrogative clauses Y1 to Y10, where each clause is realized as one tone group. In this section, only S2 renderings are illustrated for ease of description and discussion.

yours?’, Neutral: Tone 3⁹.

The context is neutral as the speaker is making a simple enquiry, i.e., demanding information of the ‘yes/no’ (polarity) type. The second syllable of *ami* executes the low falling contour (Tone 3) from 245 Hz to 180 Hz. It is observed that the neutral meaning of ‘demanding information’ was realized phonologically with a low falling contour, i.e., Tone 3, by all seven informants.

(ii). Y5: // I lo mu e / LAW //

Figure 4: S2, Y5 // I lo mu e / LAW // ‘Were you sleeping?’,



Neutral: Tone 3.

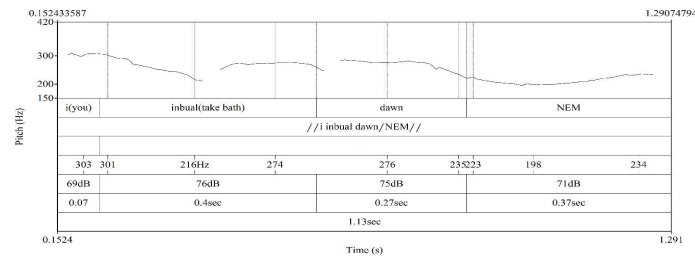
Similar to Y4 (Fig. 3), the polar element in Y5 is disyllabic (*elaw*) and the tone on *-law* is again Tone 3, with the pitch falling from 250 Hz to 166 Hz. As is evident from the above figure, the fall is almost to the lowest pitch level in the speaker’s pitch range.

(b) Tone 2: Meizial an zu a2maw?

The polar element *amaw*, as mentioned earlier, is used only in statement questions in special contexts to express either ‘disappointment’, or ‘surprise/incredulity’.

(c) Tone 4: The interrogative clauses with the polar element *em* (Y1, Y2, Y7 and Y10) are realized with Tone 4 (a fall-rise contour) in the neutral context, as illustrated in the following figure.

⁹ The figure displays the pitch contour and the textgrid with tiers displaying pitch (Hz), intensity (dB), and duration (s) readings of each syllable/word in the clause.



(i). Y1: // I inbual dawn / EM//

Figure 5: S2, Y1- // I inbual dawn / EM // ‘Are you going to take bath?’, Neutral: Tone 4.

Again, this is also a simple enquiry, but ending with the polar element *em*. The pitch in *em* first falls from 223 Hz to 198 Hz and then rises to 234 Hz, a fall-rise contour (Tone 4) which is used consistently by all the speakers to realize Y1.

4.2 Polite or Friendly

All the polar interrogatives, except Y3 and Y8, can construe a polite or friendly attitude. However, it is interesting to note that the speakers bring in specific changes in the pitch contour to realize these attitudes phonologically, as discussed below.

(a) **Tone 3:** In order to construe a ‘polite’ or ‘friendly’ attitude, the clauses realized with Tone 3 in a neutral context are now realized with Tone 2 (fall from a higher pitch level).

(i). Y4: // ui hi I ta a / MI //

Context	
Polite/ Friendly	When the speaker encounters a friend walking a dog, she politely asks if the dog is hers.
	Upon seeing a child playing with a dog, the speaker asks if the dog belongs to him, adjusting her tone to be warm and friendly, aiming to sound approachable to the child.

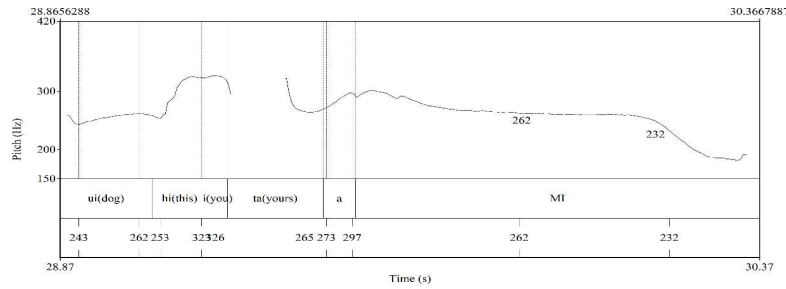


Figure 6: S2, Y4 - // ui hi I ta a / MI // ‘Is this dog yours?’, Polite/friendly: Tone 2.

Here, we observe the tone to be almost level at mid (262 Hz) pitch for a significant duration and then suddenly falling to 200 Hz. This is identified as tone 2, fall from mid to low pitch, but modified, as the major part of the syllable is executed as an elongated level pitch before the final fall.

Table 2: Comparative readings of **neutral** and **polite/friendly** renderings of ‘Ui hi I ta ami?’

Attitude	Neutral vs Polite/ Friendly					
Clause	<i>ui</i> ¹⁰	<i>hi</i>	<i>i</i>	<i>ta</i>	<i>a</i>	<i>MI</i>

¹⁰ Under each syllable, readings for the neutral rendering are in the first column, and for the target attitude in the second column. For instance, the pitch reading for the first syllable ‘ui’ is 234 Hz in a neutral rendering, but rises from 243 to 262 Hz in the ‘polite/friendly’ rendering.

Pitch (Hz)	234	243-262	222-286	253-323	281-258	326	219	265	242	273-297	245-180	262-200
Duration of word (s)	0.02	0.18	0.11	0.11	0.03	0.04	0.22	0.22	0.33	0.06	0.48	0.86
Duration of clause (s)	Neutral: 1.1; Polite/ friendly: 1.48											

The table reveals a higher pitched tone for construing the 'polite' or 'friendly' attitude when compared to 'neutral' (compare Figs. 3 & 6). Further, the durations of the clause and the tonic syllable are more when compared with those in the neutral realization.

(ii). Y5: // I lo mu e / law //

Context	
Polite/ Friendly	The speaker needed something from her sister's room, and assuming her sister was either awake or not in the room, she barged in. When she realized she had disturbed her, she asked, "Were you sleeping?"—a question that, in this context, served as a polite apology ("I didn't realize you were sleeping").
Worry/ Concern	The speaker returns from work and finds her usually energetic son lying in bed. Seeing this as unusual, she anxiously asks, "Were you sleeping?"—implying concern, as if asking, "Are you feeling unwell?"

Figure 7: S2, Y5 // I lo mu e / LAW // ‘Were you sleeping?’, Polite/friendly, or worried/concerned: Tone 2.

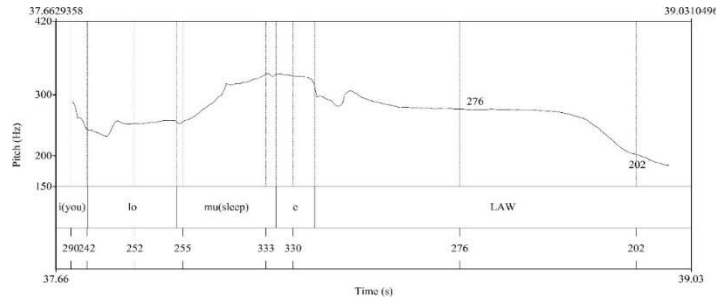
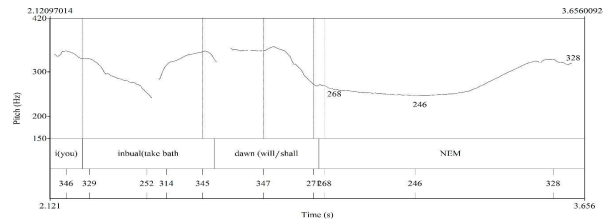


Table 3: Comparative readings of **neutral** and **polite/friendly** renderings of ‘I lo mu elaw.’

Attitud e	Neutral vs Polite/friendly, worried/concerned									
Clause	<i>i</i>		<i>lo</i>		<i>mu</i>		<i>e</i>		<i>LAW</i>	
Pitch (Hz)	2	290	230	2	2	2	27	3	2	2
	8	-		5	2	5	1	3	5	7
	4	242		2	8	5		0	0	6
	-				-	-			-	-
	2				2	3			1	202
	2				7	3			6	
	8				8	3			6	
Dur. of syllable (s)	0.	0.0	0.	0.	0.	0.	0.	0.	0.	0.8
	0	6	1	1	2	2	05	0	4	4
	4		9	9	6	1		8	4	
Dur. of clause (s)	Neutral: 1; Polite/friendly, worried/concerned: 1.36									

The context of this clause realizes a ‘polite’ and ‘friendly’ attitude and, in some cases, ‘worry’ or ‘concern’. Initially, this attitude is realized with a level contour, which is Level at 276 Hz, then it falls steeply to 202 Hz. As Table 3 reveals, the fall is from a higher pitch when the clause construes a polite or friendly attitude. The duration of the overall clause is more by 0.36 s, and the duration of the tonic syllable (-LAW) is more by 0.40 s when compared to the neutral.

(b). Tone 4: When both the neutral (Fig. 5) and the ‘polite/friendly’ (or, affectionate) attitudes are realized with Tone 4, the distinctive features are again pitch and duration; pitch is slightly higher, and duration longer, for the second attitude.



(i). Y1: // I inbual dawn / EM //

Figure 8: S2, Y1 // I inbual dawn/ EM // ‘Are you going to take bath?’, Politeness/Friendliness, Affectionate: Tone 4¹¹.

Context	
Polite/ Friendly	In this case, the speaker endeavors to be polite and friendly when asking her guest if he/she wants to take a bath.
Affectionate	Similarly, if the speaker is asking her grandmother or mother, he/she intuitively is more affectionate.

Table 4: Comparative readings of **neutral** and **polite/friendly**, affectionate renderings
of ‘I inbual dawn em?’

Attitude	Neutral vs Polite, friendly, Affectionate							
Clause	<i>i</i>		<i>inbual</i>		<i>dawn</i>		<i>EM</i>	
Pitch (Hz)	30	34	301-	329-		3	223	2
	3	6	216,	252,	27	4	-	6
				314-	6 -	7	198	8-
			27	345	23	-	-	2
			4		5	2	234	4

¹¹ Compare with Figure 5.

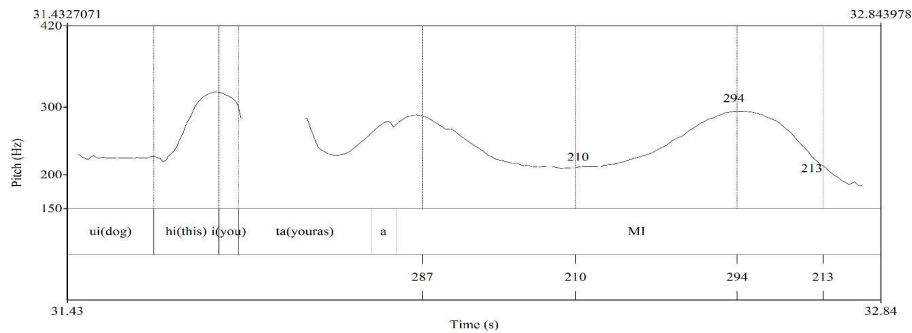
						7 1		6- 3 2 8
Dur. of word (s)	0.07	0.09	0.4	0.37	0.27	0.3	0.37	0.76
Dur. of clause (s)	Neutral:1.13; Polite, Friendly, Affectionate:1.23							

The pitch on the tonic falls from 268 Hz to 246 Hz and then rises steadily to 328 Hz. Further, the tonic syllable ‘em’ exhibits higher pitch and more duration while construing a polite attitude when compared with neutral. In addition, a comparison of Figs. 5 and 8 reveals more prominent pitch movements in the pre-tonic segment for the polite rendering.

4.2 Irritated/ Annoyed or Insisting

These sets of attitudes can be expressed by all the polar interrogatives, except Y3. In these contexts, the speaker is either annoyed or irritated, or is being very persistent about something, the phonological realizations of which are discussed below.

(a). Tone 3: The polar interrogative clause realized with Tone 3 in the neutral context is realized with a Rise-Fall contour to construe this attitude, which is uniformly evident for all the clauses - Y4, Y5, Y6, Y8 and Y9.



(i). Y4: // ui hi i ta a / MI //

Context	
Persistence/ Insistence	Upon seeing her cousin playing with a dog, the speaker asks if it's his dog, but he doesn't respond. He might be ignoring her, not hearing the question, or simply distracted. Determined to get an answer, she repeats the question with a more persistent tone.

Figure 9: S2, Y4 - // ui hi i ta / MI // ‘Is this dog yours?’,
Insistence/persistence: Rise-Fall.

A comparison of Fig 3 (neutral) with Fig 9 (insistence/persistence) reveals that while the neutral rendering is realized with Tone 3, the ‘insistent’ or ‘persistent’ is realized with a Rise-Fall contour. The pitch first rises from 210 Hz to 294 Hz and then falls to 213 Hz. The duration of the tonic syllable for these attitudes is also much more than the neutral.

(ii)Y5: // I lo mu e / law //

Context	
Irritated/ Annoyed	When the mother finds her daughter sleeping instead of studying for her exams, she becomes annoyed and asks, "Were you sleeping?" This question implies, "You shouldn't have been. You were supposed to be studying." Her irritated tone signals that she expects her daughter to get up right away.

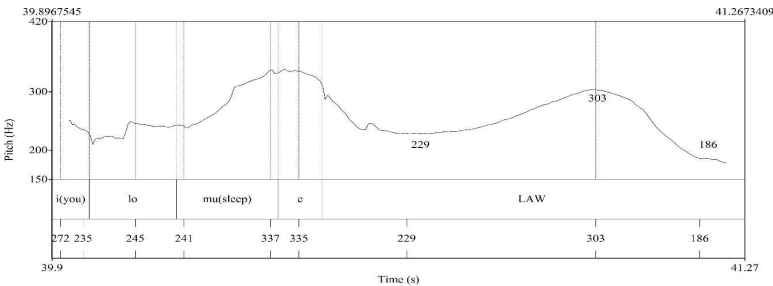
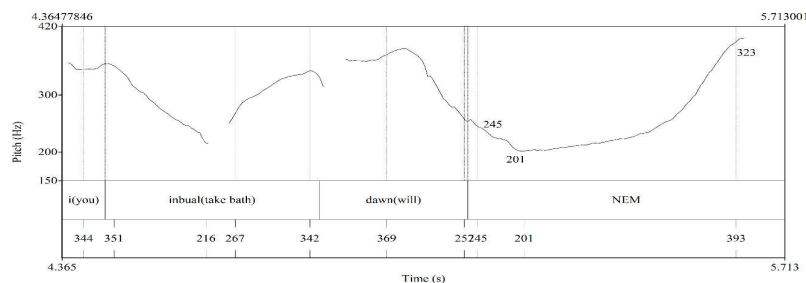


Figure 10: S2, Y5 - // I lo mu e / LAW // ‘Were you sleeping?’, Irritation, annoyance: Rise Fall.

The changes in the pitch contour for realizing ‘irritation’ or ‘annoyed’ attitude in Y5 is similar to Y4, i.e., Tone 3 in neutral (Fig. 3) changes to a Rise-Fall contour, when the clause operates in contexts conducive for construing an irritated or annoyed attitude. As observed, the pitch rises from 229 Hz to 303 Hz and then falls to 186 Hz.

(b). Tone 4: If the neutral takes Tone 4, as observed in Y1(Fig. 5), then for construing ‘irritation’ or ‘annoyance,’ the same tone is used. However, the duration of the tonic syllable is much longer, and the Rise is to a much higher pitch.

(i) Y1: // I inbual dawn / EM //



Context	
Irritated/ Annoyed/ Persisting/ Insisting	The speaker wants to take a bath, but her sister insists on going first because she needs to leave early. However, when the speaker later finds her sister stalling and not getting on with her bath, she becomes annoyed and tells her to hurry up and finish it.

Figure 11: S2, Y1 // I inbual dawn / EM // ‘Are you going to take bath?’, **Irritation /annoyance, insistence/persistence: Tone 4.**

Table 5: Comparative readings of neutral and irritation/annoyance, insistence/persistence renderings of ‘I inbual dawn em?’

Attitude	Neutral vs Irritation, annoyance, insistence, persistence							
Clause	<i>i</i>		<i>inbual</i>		<i>dawn</i>		<i>EM</i>	
Pitch (Hz)	303	344	301-216, 274	351-216, 267-346	276-235	369-257	223-198-234	245-201-393
Dur. of word (s)	0.07	0.08	0.4	0.39	0.27	0.27	0.27	0.59
Dur. of clause (s)	Neutral: 1.13; Irritation/annoyance, insistence/persistence: 1.34							

Although both contexts use Tone 4, the ‘irritation’ or ‘annoyed’ attitude is conveyed with a more noticeable fall-rise than in the neutral context. In this case, the pitch of the tonic syllable starts at 245 Hz, falls to 201 Hz, and then rises to 393 Hz, which is more pronounced than the neutral fall-rise, where the pitch remains lower. Additionally, the duration of the tonic syllable in the irritated or annoyed context is significantly longer than in the neutral one.

4.3 Anger

‘Anger’ can be construed with most of the polar interrogative clauses except Y3, Y7, Y8 and Y10. In the case of Y7, it construes an ‘offer’, and it is quite difficult to make an angry offer in Mizo. On the other hand, it is also difficult to express ‘anger’ with Y8 and Y10 because of the nature in which the question is asked. In Y10, one needs to replace *em* with *em ni/ami*, in order to construe an angry question, as in ‘I buai em ni (or ami)’. Similarly, Y8 would require the addition of ‘ka tih chu’ ‘I am asking you’, or ‘mawh’, where the speaker becomes

emphatic in an attempt to get information from the addressee, as in ‘Ruah a sur ami ka tih chu’ or ‘Ruah a sur ami mawh’.

It is noticed that when ‘anger’ is being construed, each word in the clause is enunciated clearly. Though the same tone realizes the two meanings, the angry utterance is considerably shorter and abrupt, in addition to clear enunciation of each word.

(a). Tone 3: Both neutral (Fig 3) and angry attitude (Fig. 12) are realized with Tone 3. The difference is observed in other acoustic features such as duration and intensity.

(i). Y4: // ui hi I ta a / MI //

Context	
Anger	The speaker becomes furious when a dog defecates on her freshly swept doorstep, forcing her to clean everything again. In her anger, she spots a person with a dog and demands to know if it belongs to them.

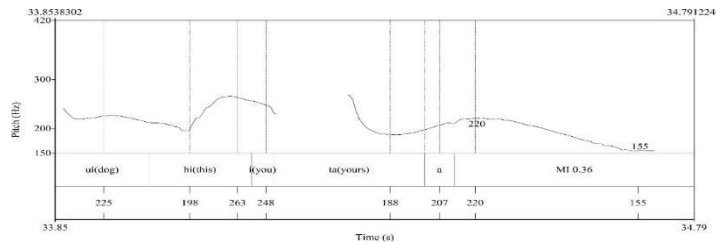


Figure 12: S2, Y4 - // ui hi I ta a / MI // ‘Is this dog yours?’ Anger: Tone 3.

Table 6: Comparative readings of **neutral** and **angry** renderings of ‘ui hi I ta ami?’

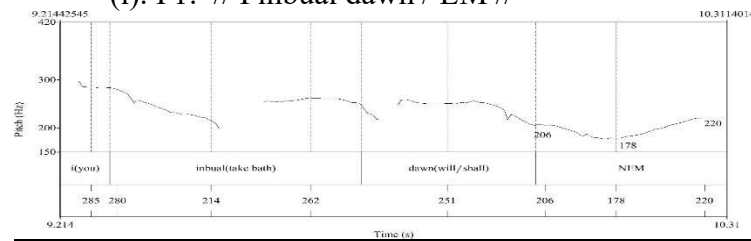
Attitude	Neutral vs Anger					
Clause	<i>ui</i>	<i>hi</i>	<i>i</i>	<i>ta</i>	<i>a</i>	<i>MI</i>

Pitch (Hz)	2 3 4	22 5	2 2- 2 8 6	1 9 8- 2 6 3	2 8 1- 2 5 8	2 4 8	2 1 9	1 8 8	2 4 2	2 0 7	2 4 5- 1 8 0	22 0- 15 5
Intensity (dB)	7 7	7 8	7 6	7 7	7 7	8 0	7 4	7 5	7 7	7 8	7 6	78
Dur. word (s)	0 .0 2	0. 1 3	0. 1 1	0. 1 5	0. 0 3	0. 0 3	0. 2 2	0. 2 2	0. 3	0. 0 4	0. 4 8	0. 35
Dur. clause (s)	Neutral: 1.17; Anger: 0.93											

Here, we notice that while expressing ‘anger’, the tonic syllable and the utterance on the whole are shorter when compared with the neutral. Further, overall intensity is slightly higher for the angry attitude.

(a). **Tone 4:** Y1 ‘I inbual dawn em’ (Are you going to take a bath?) is rendered with Tone 4 both in the neutral and the angry contexts.

(i). Y1: // I inbual dawn / EM //



Context	
Anger	The mother, who has been patiently trying to convince her child to take a bath, finally loses her temper when he refuses to listen despite her repeated requests. In a commanding and angry tone, she asks, "I inbual dawn em?" (Are you going to take a bath?), implying that

	there will be consequences if he continues to disobey.
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Figure 13: S2, Y1 - // I inbual dawn / EM // ‘Are you going to take bath?’, **Anger**: Tone 4.

Table 7: Comparative readings of **neutral** and **anger** renderings of ‘I inbual dawn em?’

Attitude	Neutral vs Anger							
Clause	<i>i</i>		<i>inbual</i>		<i>dawn</i>		<i>EM</i>	
Pitch (Hz)	303	285	301-216, 274	280-214, 262	276-235	251	223-198-234	206-178-220
Intensity (dB)	69	76	76	82	75	85	71	77
Dur. of word (s)	0.07	0.08	0.4	0.41	0.27	0.28	0.37	0.31
Dur. of clause (s)	Neutral :1.13; Anger:1.09							

As is evident, ‘em,’ the tonic in both the contexts is realized with Tone 4 (compare neutral Fig. 5 and Fig. 13), but the intensity of the tonic is slightly higher and the duration (of both ‘em’ and the whole utterance) is lesser when realizing the angry attitude.

4.4 Disappointment

The clause *meizial an zu amaw* (They are smoking cigarettes?) with the polar element *amaw* is used in special contexts only to express either ‘disappointment’ or ‘surprise’. In order to construe disappointment, the speakers used Tone 2 to realize this clause.

- (i) Y3: // meizial an zu a / MAW //

Context	
Disappointment	After a few students are caught smoking at school, their teacher visits their parents to inform them. One of the student's fathers, feeling deeply disappointed by his child's behavior, asks a rhetorical question. While it is framed as a question, it is a way of seeking confirmation of the situation, reflecting his shock and disapproval.

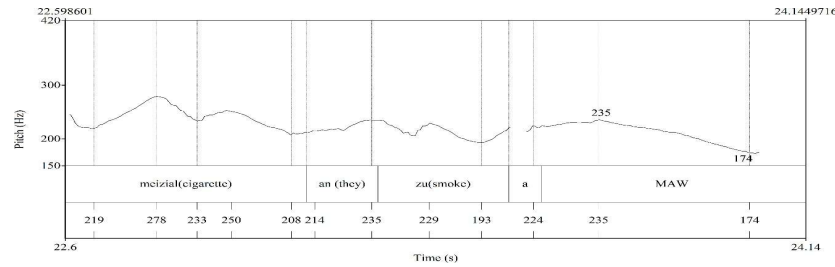


Figure 14: S2, Y3 // meizial an zu a / MAW // ‘They are smoking cigarettes?’, **Disappointment**: Tone 2.

As seen in Fig. 14, this attitude is expressed with a Falling contour from 235 Hz to 174 Hz, and the duration of the tonic syllable is 0.55 s.

4.5 Surprise/Incredulity

Amaw can also construe ‘incredulity’ or ‘surprise’ in certain contexts. When it does, it is realized with a high-pitched rise. The rising pitch is extremely high. Furthermore, the onset of the rising pitch starts from a high point.

- (i). Y3: // meizial an zu a / MAW //

Context	
Surprise, Incredulity	In this case, the father is genuinely shocked and surprised that his children had smoked, especially that they were bold enough to do so at school. His question reflects his disbelief, almost as if he’s

saying, "What! They did *what*?" or "Are you sure they did that?" It's more about expressing his astonishment than seeking an actual answer.

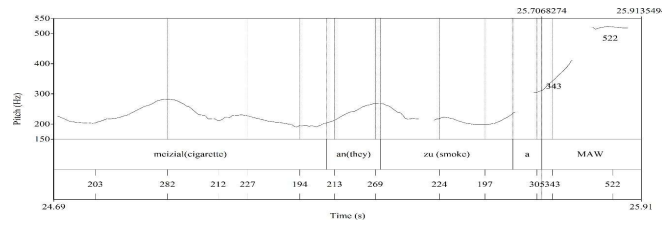


Figure 15: S2, Y3 - // meizial an zu a / MAW // ‘They are smoking cigarettes?’, **Surprise**: High Rise.

In the above figure, the Rise to indicate surprise is from 343 Hz to 522 Hz, which is a rise from Mid to High. The duration of the tonic syllable is also considerably shorter than that of the disappointment rendering, 0.2 s compared to 0.55 s.

5 Results

In this section, the study's results are presented using illustrations and tables that display the pitch and duration measurements of the tonic syllable from all the renditions of a selected clause by the speakers. The presentation is divided into three sub-sections (A: Tone 3, B: Tone 4, C: Tone 2) to highlight the acoustic cues used by the speakers in expressing the different attitudinal variants of each tone.

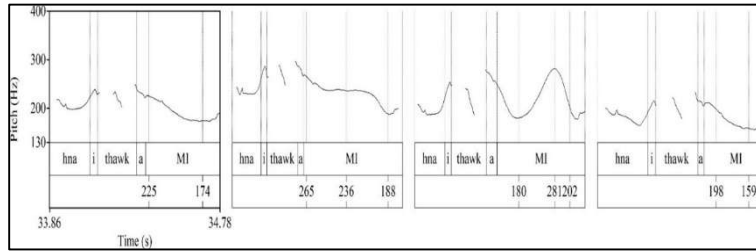
A. Tone 3:

1. Polar element: *a3mi* (Y4, Y6, Y9, Y8)

- a. Set 3: Y4, Y6, Y9
 - i. Neutral (Tone 3)
 - ii. Polite, friendly, worried, concerned (Tone 2)
 - iii. Irritation, annoyance, insistence, persistence (Rise-fall)

- iv. Anger (Tone 3; duration of tonic syllable and clause
anger < neutral; intensity: anger > neutral)

Figure 16: S6; Y6: *Hna I thawk a3mi?* (All attitudinal alternants: i,



ii, iii, iv).

Table 8: Y6; Pitch and duration readings for all the attitudinal variants.

Y 6		(i) Tone 3	(ii) Tone 2	(iii) Rise Fall	(iv) Tone 3
	S1	273-176 ¹² 0.51 ¹³	284-187 0.9	206-293-190 0.96	266-172 0.38
	S2	231-170 0.41	279-190 0.81	223-313-179 0.89	231-168 0.39
	S3	250-184 0.38	261-174 0.6	231-261-183 0.63	259-181 0.34
	S4	222-174 0.38	232-174 0.67	205-239-179 0.65	231-158 0.3
	S5	245-185 0.37	277-191 0.66	240-322-192 0.68	294-180 0.34
	S6	225-174	265-188	180-281-202	198-159

¹² Pitch readings of the tonic syllable in Hz.

¹³ Duration of the tonic syllable in secs.

		0.47	0.76	0.63	0.38
	S7	236-193	282-193	212-269-197	213-171
		0.43	0.73	0.8	0.37

b. Set 6: Y8

i. Neutral (Tone3)

ii. Worried, concerned (Tone 2)

iii. Irritation, annoyance, insistence, persistence (Rise-fall)

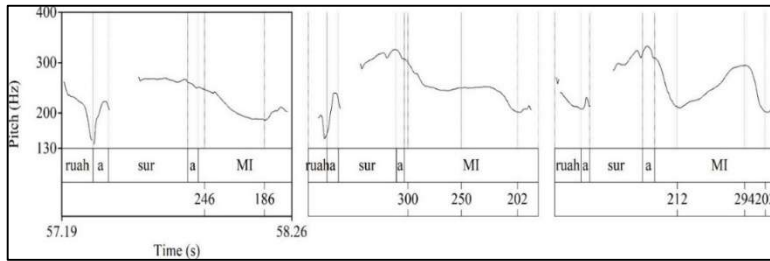


Figure 17: S7; Y8: *Ruah a sur ami?* (All attitudinal alternants: i, ii, iii).

Table 9: Y8; Pitch and duration readings for all the attitudinal variants.

Y8		(i) Tone 3	(ii) Tone 2	(iii) Rise Fall
	S1	269-176	298-165	203-298-188
		0.64	0.86	0.93
	S2	249-181	280-186	215-295-201
		0.46	0.87	0.82
	S3	272-187	283-181	232-257-191
		0.39	0.45	0.56
	S4	238-174	273-200	209-255-175
		0.44	0.69	0.72
	S5	279-189	305-185	288-355-209
		0.49	0.66	0.7
	S6	234-173	279-187	165-309-185
		0.4	0.73	0.75
	S7	246-186	300-202	212-294-202
		0.4	0.78	0.76

2. Polar element: *e3law*

- a. Set 4: Y5
 - i. Neutral (Tone 3)
 - ii. Polite, friendly, worried, concerned (Tone 2)
 - iii. Irritation, annoyance (Rise-Fall)
 - iv. Anger (Tone 3; duration of tonic syllable and clause: anger < neutral lesser; intensity: anger > neutral)

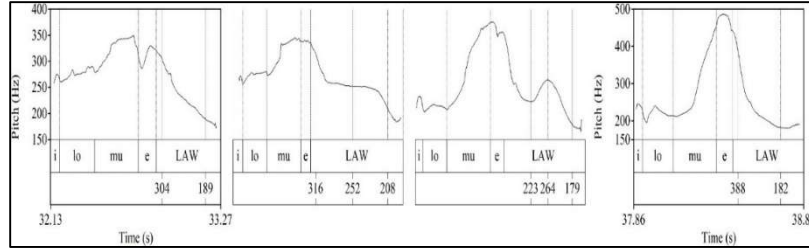


Figure 18: S5; Y5: *I lo mu elaw?* (All attitudinal alternants: i, ii, iii).

Table 10: Y5; Pitch and duration readings for all the attitudinal variants.

Y5		(i) Tone 3	(ii) Tone 2	(iii) Rise Fall	(iv) Tone 3
S1		248-180	294-178	190-283-184	262-164
		0.50	0.78	0.83	0.45
S2		250-166	276-202	229-303-189	231-162
		0.45	0.84	0.85	0.42
S3		275-178	267-181	222-238-190	314-181
		0.41	0.63	0.62	0.33
S4		221-179	235-183	185-260-185	213-159
		0.4	0.63	0.68	0.3
S5		304-189	316-208	223-264-179	388-182
		0.43	0.63	0.63	0.4
S6		224-167	276-181	186-287-186	200-150
		0.41	0.6	0.6	0.23
S7		252-193	283-197	205-269-210	226-174

		0.46	0.73	0.67	0.37
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B. Tone 4

1. Polar element: *4em* (Y1, Y2, Y7, Y10)

- a. Set 1: Y1, Y2
 - i. Neutral (Tone 4)
 - ii. Polite, friendly, affectionate (Tone 4: higher pitch; longer duration)
 - iii. Irritation, annoyance, insistence, persistence (Tone 4: rise is much higher; duration of tonic syllable is more)
 - iv. Anger (Tone 4; duration of tonic syllable and clause: anger < neutral; intensity: anger > neutral)

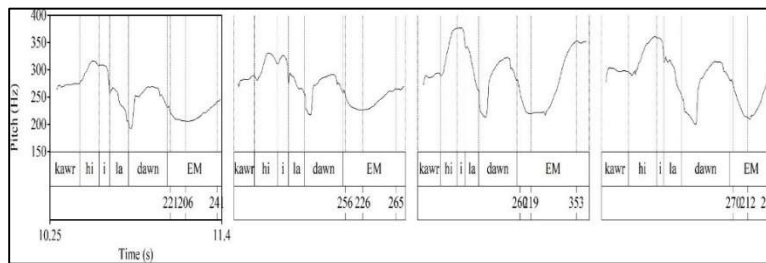


Figure 19: S5; Y2: *Kawr hi I la dawn em?* (All attitudinal alternants: i, ii, iii).

Table 11: Y2; Pitch and duration readings for all the attitudinal variants.

Y 2		(i) Tone 4	(ii) Tone 4	(iii) Tone 4	(iv) Tone 4
	S 1	230-190- 246	243-216- 275	263-190- 335	232-174- 274
		0.49	0.78	0.75	0.39
	S 2	222-200- 230	264-228- 310	273-210- 383	213-190- 220
		0.42	0.76	0.61	0.37
	S	232-181-	223-189-	222-195-	228-193-

	3	235	240	269	261
		0.33	0.52	0.42	0.27
	S 4	204-172- 200	193-236	232-171- 351	21-172- 210
		0.31	0.48	0.48	0.29
	S 5	221-206- 241	256-226- 265	260-219- 353	270-212- 284
		0.35	0.53	0.54	0.25
	S 6	203-167- 206	230-200- 223	209-175- 336	176-157- 203
		0.33	0.59	0.42	0.25
	S 7	214-200- 227	236-202- 255	226-197- 313	205-184- 217
		0.33	0.59	0.42	0.25

b. Set 5: Y7, Y10

- Neutral (Tone 4)
- Polite, friendly (Tone 4: higher pitch; longer duration)
- Insistence, persistence (Tone 4: rise is much higher; duration of tonic syllable is more)

Figure 20: S3; Y10: *I buai 4em?* (All attitudinal alternants: i, ii, iii).

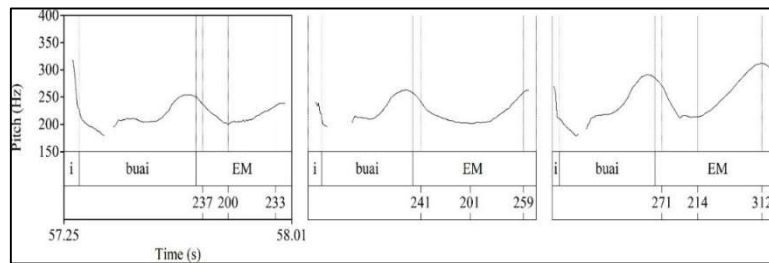


Table 12: Y10; Pitch and duration readings for all the attitudinal variants.

Y10		(i) Tone 4	(ii) Tone 4	(iii) Tone 4
	S1	231-194- 180	274-212- 263	265-207- 328

		0.40	0.77	0.79
	S2	222-191-218	282-252-282	296-229-389
		0.37	0.72	0.55
	S3	237-200-233	241-201-259	271-214-312
		0.29	0.47	0.42
	S4	220-194-234	239-205-257	258-194-335
		0.36	0.6	0.4
	S5	265-215-264	296-261-291	273-229-375
		0.36	0.58	0.7
	S6	215-185-216	237-213-238	248-189-323
		0.32	0.64	0.53
	S7	227-205-225	245-212-244	270-196-217
		0.28	0.76	0.56

C. Tone 2

1. Polar element: *a2maw* (Y3)

a. Set 2: Y3

- i. Disappointed (tone 2) (no neutral to compare with)
- ii. Surprised, incredulous (high rise)

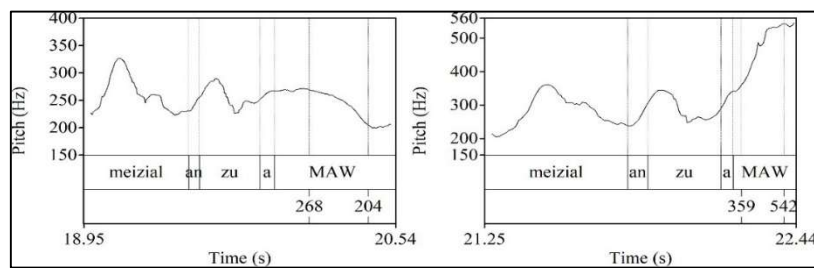


Figure 21: S5; Y3: *Meizial an zu amaw?* (All attitudinal alternants: i, ii, iii).

Table 13: Y3; Pitch and duration readings for all the attitudinal variants.

Y3		(i)	(ii)	(iii)
			Tone 2	High Rise
	S1	-	261-184	323-392
		-	0.51	0.25
	S2	-	235-174	343-522
		-	0.55	0.2
	S3	-	240-180	286-418
		-	0.43	0.22
	S4	-	210-178	243-285
		-	0.4	0.2
	S5	-	268-204	359-542
		-	0.61	0.26
	S6	-	208-176	289-416
		-	0.41	0.19
	S7	-	215-188	268-488
		-	0.5	0.17

The above illustrations and readings lead us to the following observations with reference to the phonological realization of Polar Interrogatives to construe the different attitudes:

1. *a3mi* & *e3law*: When the neutral tone is Tone 3, i.e., the pitch falling from ML/L-L,
- a. ‘polite/friendly’ attitude is realized with Tone 2 (M-L). The pitch falls from a higher level, the duration of the tone group and the tonic syllable is longer, and intensity is greater.

- b. 'irritated' or 'insisting' attitude is realized with rising-falling contour. Again, the duration of the tone group and the tonic syllable are more, and intensity is greater.
- c. 'anger' is realized with Tone 3, i.e., there is no change in tone, intensity is greater, but the duration of the tone group and the tonic syllable is shorter.

- 2. *4em*: When the neutral tone is Tone 4, i.e., a falling-rising contour tone,
 - a. there is no change in tone for realizing the target attitudes. However, there are differences in pitch movements:
 - i. The fall and rise pitch movements are pitched higher for 'polite/friendly' and 'irritated/insisting' attitude, with the latter exhibiting a more prominent rise than the former.
 - ii. The pitch movements for 'anger' are almost similar to those of the neutral.
 - b. The intensity is higher for all three attitudes. The duration, however, varies: it is shorter for 'anger,' longer for 'irritated/insisting,' and the longest for 'polite/friendly.'

3. *amaw*: This polar element is realized with a tone 2 to construe 'disappointment' and with a high rise (M-H) to construe 'surprise/incredulity', with the former exhibiting a greater duration of the tone group when compared with the latter.

6 Conclusion

In conclusion, though Mizo is a tone language, the analysis of tonal variations in the polar elements of Mizo Yes-No Interrogatives suggests that subtle changes in pitch, intensity, and duration significantly influence the expression of attitude in speech. It was intriguing to note tonal shifts for stronger emotions like 'surprise' (rising tone), or 'annoyance' (rising-falling tone). These findings contribute to a deeper understanding of how tone and prosody can influence interpersonal communication, with implications for linguistics, psychology, L2 learning, and language teaching. However, due

to the small sample size and limited regional focus of the study, further research across diverse Mizo-speaking populations is needed to generalize these findings. Future research could explore the interaction of tone and body language in Mizo speakers to further understand non-verbal cues in communication. Ultimately, understanding the nuances of tone in language is crucial, not only for linguistic research but also for enhancing cross-cultural communication and social interaction.

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Bonda (Remo) Women as Agents of Environmental Conservation and Stewardship: A Case Study of Bonda Hills of Odisha

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ABSTRACT

Bonda or Remo is one of the autochthonous communities of the Bonda Hills of Odisha. Women of this community are unique and have undertaken environmental responsibilities for generations. As a Particularly Vulnerable Tribal Group (PVTG), the community members, especially women, participate in a complex interrelationship of ecology, livelihood, and identity in day-to-day communication. Their worldview promotes women as critical environmental managers in various roles, including cultivators, food gatherers, and ritual experts, for managing the forest ecosystem. The present paper examines how Bonda/Remo women's ecological knowledge, agricultural practices, and cultural traditions operate as systems of environmental conservation. Further, it tries to address how ethnographic and linguistic perspectives really carry a rich ecological vocabulary and oral narratives reflecting the community's intimate connection with the forest. For this, field-based methods, including participant observation method, interviews, and cultural documentation, are used. Additionally, the paper examines how expressions of language and symbolic metaphors in Remo embody elements of ecological intimacy, spiritual respect for nature, and environmental ethics. In continuation, it also throws light on the cultural logic that brings women, environment, and spirituality together. The recent field study suggests that Bonda/Remo women's ecological engagement encompasses more than utilitarian subsistence and signifies a robust, community-based model of environmental stewardship that challenges contemporary models of resource management. Apart from that, the paper emphasises the lack

of interdisciplinary research connecting Bonda Remo women's ecological roles with language practices and their ideas of sustainable development. Finally, it highlights that their cultural knowledge forms a vital part of India's indigenous environmental knowledge systems and deserves greater academic and policy recognition.

Keywords: *Bonda Remo Women, Environmental Conservation, Stewardship, and Linguistic Ecology*

1 Introduction Bonda Remo

The Bonda people, who refer to themselves as Remo, reside in the remote hilly terrain of Malkangiri district, located in southwestern Odisha. This area is characterised by *sal* forests, rugged topography, and limited access through the plains. According to Mahapatra (1994) and Panda (2018), these are classified as a Particularly Vulnerable Tribal Group (PVTG) and have cultivated a cultural and linguistic identity shaped by the significant geographic isolation as well as integration with the surrounding environments. About twelve thousand Bondas inhabit approximately thirty settlements, or *gamsa*, located at the tops of hills, which are set up around communal clan relationships, cooperative labour, and ritual collaboration. In this context, Elwin (1950) states that these people cultivate foods to supplement their diets; their everyday dependence on the local ecosystems is framed by a subsistence lifestyle of shifting cultivation, foraging, and small-scale agriculture. From a linguistic perspective, Anderson (2008) states that Remo is a language of the South Munda branch of the Austroasiatic family, particularly close to Gorum and Gutob. While discussing on anthropomorphism, Abbi (2006) discusses that Remo serves as much more than a mode of communication, as it encodes and constructs ecological perception: an abundance of eco-vocabularies and metaphoric expressions anthropomorphise landscape features and animate the

environment. For example, terms and phrases that translate to ‘living hill’, ‘forest deity’ or ‘stream of life’ evoke how language acts as a carrier of environmental knowledge and shapes local cognition about human relations. In this cultural-ecological setting, Bonda women play important practical and symbolic roles. Further, Mahapatra (1994) and Elwin (1950) agrees that Ethnographies have shown that women are the principal managers of agricultural production, seed preservation, and the foraging economy; when women sow, harvest, and gather, they work with different plants and encounter different animals and water sources daily. In continuation, Panda & Nayak (2020) state that Bonda women are not passive, as their labour acts as custodians of biodiversity in ways that mix empirical observation of soil, seasons, and plant behaviour with ritual and social regulation.

As for the Bonda cosmology is concerned, it supports and legitimises these behaviours and practices. Singh (2019), in this context, endorses that the association of women with the environment holds that forests, hills and streams have gods like *Suru Gudi* and *Pat Kanda* whose favour must be secured before land is cleared or items harvested from the forest. Further, Baerkes (1999) also aligns with socially embedded prohibitions and states that ritual sanctions operate as informal mechanisms of resource governance, backed by community expectations, like prohibitions against felling trees during nesting or restrictions on harvest of certain items, that function to limit behaviour and conserve ecosystems as effectively as formal regulations. Following this, Gadgil & Berkes (1991) and Abbi (2006) state that oral traditions, in the form of proverbs, songs and tales, carry with them technical and ecological knowledge across generations, festooned with rules of restraint and reciprocity in memorable form. For example, an aphorism that warns against cutting a fruit-bearing tree before the subsequent

rain. It is designed to encapsulate both ecological foresight and community ethics, serving as a cognitive tool to remind people to use resources sustainably. This is trivialised by the present generation. Later, Rout (2010) states that modern-day pressures such as deforestation, infrastructure development and market integration are undermining the socioecological balance in the Bonda hills. While the women's stewardship practices and ritualised governance have adapted to change and provided alternative place-based models of sustainability based on cooperation, reciprocity. It is worth remembering Agarwal (1995), who states that conservation and development agendas that seek to improve livelihoods can still overlook indigenous women's epistemologies. Given this situation, women are often viewed as beneficiaries of management interventions rather than acknowledged as ecological stewards and knowledge holders. Therefore, this research investigates how the interplay of linguistic ecology, gendered labour, and ritual cosmology among the Bondas creates an original indigenous model for environmental stewardship. By recognising Bonda women as active agents of conservation, the paper argues for the appropriate recognition of their cultural knowledge in academic and policy frameworks. This recognition is important to sustain natural resources and enhance cultural resilience in the Bonda Hills and beyond.

2 Earlier Works on the Language, Women and Environment

Grierson's (1906) Linguistic Survey of India initiates the linguistic study of the Munda group of languages, where Bonda (Remo) could not find its place. The reason may be that the community may be inaccessible for the researchers at that time. Though Bonda was not mentioned in the study, it helped to establish some of the foundations for notions of Bonda linguistic studies. Several decades later, the first in-depth ethnographic study was carried out on the Bondas by Verrier Elwin in 1950.

His work captures the unique highland ecology, ritual life, and social organisation of the Bondas. In the study, he presents women as cultivators, gatherers, and the primary means of sustaining domestic and agricultural stability. However, Elwin also captures what could be considered ethnographically oriented studies of 'isolation' and 'exoticism', which were characteristics of his era of ethnography. Elwin's ethnography contains little analytical depth into women and their experiences related to ecological intelligence. Building on Elwin's proposal, Mahapatra (1994) revisited the Bonda community and situated them within the context of developmentalism in the post-independence era in his book *Tribal Development in India: Myth & Reality*. Mahapatra's research was both descriptive and critical, offering a critical viewpoint of development upon the lives and ecological practices of the Bonda people, focused upon the state efforts to influence their practices by establishing the *Bonda Development Agency*. He continued to describe and observe the Bonda women's devotion to the ecological systems and ritual life of the Bonda people, demonstrating that they were able to maintain the continuity of their traditional ecological practices and sustain the community through the exertions of women in agriculture. For the sake of context, given the shared interests, there were also some linguistic studies of the Munda family being developed through scholars like Norman Zide (1965), Gérard Diffloth (2005), and Gregory Anderson (2008, 2010). While these scholars began examining Munda languages' structural features and typology, contributing to the classification of comparative linguistics in eastern India. Anderson (2010) also recently called an urgency for the documenting of endangered languages among the Munda family, along with their potential extinction, thereby losing both cultural and ecological knowledge. However, these studies have generally been descriptive and have yet to describe other

inflexions, including the ways cognition, language, design, and gender interact with ecological practices.

By the 1990s, environmental anthropology and ecology contributed broader conceptual tools for understanding indigenous environmental knowledge. Gadgil and Berkes (1991) developed the idea of Traditional Ecological Knowledge (TEK), which was later expanded by Berkes (1999), stating that Sacred Ecology is a cumulative store of local knowledge consisting of moral, ritual, and ecological governance. Simultaneously, Vandana Shiva (1988) in *Staying Alive* highlighted how women's role in nurturing and production resonates with environmental custodianship. Karen Warren (2000) and Val Plumwood (2002) continued this critique through ecofeminism, recognising women's ecological knowledge as a nonpatriarchal and nonexploitative form of perceiving worlds. While these authors frame a theoretical perspective on gendered ecologies, none specifically explored the indigenous women from eastern India or the particular language in which ecological consciousness is articulated. In the early 21st century, several scholars turned their attention specifically to the tribal ecologies of Odisha. Dash (2002), Pattnaik (2010) and Rout (2010) summarised the effects of deforestation, market economies, and state projects on tribal livelihoods, with attention to how women labour and ritual work together to maintain ecological stability. Behera (2017) built upon these strands of inquiry by illuminating ecocultural conservation practices in the case of the Dongria Kondhs, where women are custodians of biodiversity through taboos and rituals. Panda (2018), Singh (2019), and Panda and Nayak (2020) elaborated upon ethno-conservation themes in the case of Odisha's tribal women, establishing Bonda women as ecological agents who conserve ancestral seeds and maintain ritual authority over environmental governance. Additionally, Abbi (2006) introduced the phrase "eco-semantic structuring" to describe indigenous languages as a custodian of ecological

knowledge, while Stibbe (2015) has developed the subfield of eco-linguistics to illustrate how language and discourse shape our environmental attitudes. These linguistic ecological perspectives combine to form an interpretive lens for understanding the Remo language as a living expression of environmental empathy. Despite this body of scholarship beginning with Grierson's linguistic classification to Stibbe's eco-linguistic theory, there is still a gap in the literature, as most studies remain focused purely on Bonda culture, language, or ecology. There is no interdisciplinary analysis that draws together language, gender, cognition, and environmental ethics to show how Bonda/Remo women's ecological roles are an interconnected indigenous system of conservation practices. This study hopes to fulfil that void through placing Bonda women as active environmental stewards whose linguistic, ritual, and cognitive practices sustain biodiversity and cultural continuity in the Bonda hills of Odisha.

3 Methodology

The study takes a qualitative, ethnolinguistic and ecological approach to investigate how Bonda/Remo women are agents of environmental conservation and stewardship in the Bonda Hills of Odisha. Mahapatra (1994) and Panda & Nayak (2020) state that integrating ethnography, oral traditions, and eco-linguistic analyses, the research prioritises the relevance of links between language, gender, ecology, and cognitive and cultural dimensions of indigenous environmental knowledge. Fieldwork was conducted in the Bonda Hills, Malkangiri district, in the villages of Mudulipada and Bondaghati, which are both Upper and Lower Bonda settlements featuring mixed deciduous rural forests and traditional *podu* shifting cultivation systems. A purposive sample of twenty Bonda women, whose ages range from 18 to 70 years old, was engaged for an in-depth study. Panda (2018) reports that the older women, or *Gurumai*, serve as custodians of ritual and medicinal knowledge and younger Bonda women act as agents in intergenerational learning of ecological knowledge. The investigators collected data using

participant observation, semi-structured interviews, and participation in rituals/events and seasonal festivals, including *Pat Kanda Parab* and *Chait Parab*, as events that symbolically represent human-nature reciprocity. Types of data included: oral narratives; ecological-oriented songs, and proverbs in the Remo language, to make known how meanings are environmentally constructed and encoded linguistically by way of metaphors and conceptual patterns. Data included a lexical record of ecological vocabulary used to intentionally name the flora, fauna, soil, and rhythms of seasons; the data itself takes into account the relationship between language and environmental knowledge. Ethical practices utilised UNESCO's 2018 Free, Prior, and Informed Consent process to sustain voluntary participation and confidentiality. The analysis and interpretation of the data included ecofeminist perspectives of Shiva (1988), Warren (2000) and Lakoff and Johnson's (1980) ethnolinguistic anthropological understanding of ecological knowledge-erasure to gendered language. The integrated analysis of the research situates the Bonda women's linguistic, ritual, and cognitive practices as central elements to indigenous conservation.

4 Data and Analysis

The lexical domains of fauna, avifauna, flora, plant resources, forest ecology, landscape elements, ethnobiological, cultural ecology, and ecological actions gathered in the field work are used for the discussion and analysis. The data gathered in the field revealed that Bonda Remo women exemplify a persistent environmental conservation model that is embedded in their daily life and worldview. Their elaborate nomenclature of plants and animals in terms of trees, creepers, tubers, fruits, and birds serves as the foundation of their subsistence activities related to gathering food, cooking food, preparing medicines, and managing shifting cultivation. Furthermore, it was noted that during sacred rituals around festivals, women pray to forest spirits, integrating ecological responsibility with their spiritual lives. Their everyday relationship with the forest includes action beyond prayer, involving seed-saving and ongoing soil

regeneration. Observing animal activity and ecological seasonality was also a very careful observance. These rituals reflect an understood relationship with biodiversity and a consistent practice of sustainable resource use. While modern societies may be grappling with sustainable development but Bonda women have been practising the principles of sustainable development through institutionalised ecological ethics, cyclical properties of natural resource consumption, and respect for regeneration. Their association with the forest, as both continuous and closer than that of men, situates them as the primary stewards of spiritual and material ecology. Thus, their lexicon is evidence of living archives of sustainable development, environmental ethics, and cultural resilience where language itself is a vehicle of conservation. The following are some of the vocabulary categorised under various semantic domains:

4.1 Flora and Plant Resources

The Remo lexicon for plant life indicates the Bonda women's knowledge of biodiversity and their involvement in its sustainability. For example, the words for trees, creepers, fruits, and seeds therein *tũar* 'banyan', *ŋkusuĩŋ* 'jackfruit', and *ɬola* 'mahua seeds' exhibit that any particular plant is identified based on how it functions ecologically and culturally. The way in which women engage with tubers, fruits, and leaves suggests this is not just subsistence knowledge but also practices of conservation, as women selectively use resources and monitor their availability. The women's linguistic categorisation among edible, medicinal, and ritual plants suggests ecological precision from lived experience. By naming, classifying, and preserving the uncommon or less edible or useful species, Bonda women are acting as the living archive record for forest biodiversity. The language used to name and describe plant species suggests cognitive mapping of the forest ecosystem. Whereas the trees are represented in the Bonda language, social life, and culture, language acts as a way to sustain environmental knowledge and social identity based on the environment.

Remo Word	Gloss	Remo Word	Gloss
<i>otōĩ</i>	‘a tree’	<i>kiruŋ / kiriŋ</i>	‘kuŋey tree’
<i>kumbi (De.)</i>	‘a tree’	<i>kurđu (De.)</i>	‘a tree’
<i>kulur</i>	‘a kind of tree’	<i>kɔ sela</i>	‘a tree called kosela’
<i>gĩlga</i>	‘a tree called gilŋgā (De.)’	<i>japra (De.)</i>	‘a tree’
<i>ɖɔndra (De.)</i>	‘a tree’	<i>ɖáŋni (De.)</i>	‘a tree’
<i>ɖelko (De.)</i>	‘a tree’	<i>ɖumri (De.)</i>	‘fig’
<i>tũar</i>	‘banyan tree’	<i>dwaŋa</i>	‘a kind of tree’
<i>panisad</i>	‘a tree’	<i>palda (De.)</i>	‘a tree’
<i>kunɖa (De.)</i>	‘a creeper’	<i>ɖaĩ</i>	‘a creeper’
<i>nseŋgu (H.)</i>	‘a creeper’	<i>uli</i>	‘mango’
<i>ager / ayer</i>	‘unripe mango’	<i>uliñer</i>	‘mango seed’
<i>kuʔre</i>	‘black berry’	<i>tarmaŋ</i>	‘an edible fruit’
<i>ɖɔla</i>	‘seeds of mahua’	<i>nsugra / nsugura</i>	‘banana’
<i>ŋkusuĩŋ / ŋkɔsĩŋ</i>	‘jackfruit’	<i>kuli</i>	‘a kind of tuber’
<i>ŋkuĩ</i>	‘a kind of tuber’	<i>ŋkurlɔp</i>	‘a kind of tuber’
<i>kerɔŋsari</i>	‘a kind of mushroom’	<i>khenɖa (H.)</i>	‘branch of tree’
<i>kɔm</i>	‘branch of tree’	<i>palni (De.)</i>	‘new leaf’

4.2 Fauna and Avifauna

The vocabulary set aside for animals and birds in the Remo language demonstrates the Bonda community's observant knowledge of the forest. Words like *kariṇe* 'parrot', *kukusag* 'tiger', or *elam* 'deer' name the species of animal or bird but also capture their meanings through folklore regarding animal behaviour, implicating the animal as a creature with ethical standing. Daily foragers or cultivators, the women in the Bonda community ascribe meanings to animal calls and movements, even if abstract, as signals of eco-social events like rain, harvest, or danger. Such animal points of reference are replicated in ritual songs and stories to demonstrate their own ethical, gendered relations to living beings. Naming animals in detail is an act of empathy and a source of togetherness in which the Bonda women do not typecast all creatures as subordinate to their own species. Naming animals by body parts and their habits provides a linguistic and cognitive link between the women and their animal neighbours, and often aids them in their sustenance practices and everyday activities. The language and worldview nurtured among Bonda women suggest that some fauna are agents in a balanced ecological community.

Remo Word	Gloss	Remo Word	Gloss
<i>kariṇe</i>	'parrot'	<i>kuṭrunḡa</i>	'a kind of bird'
<i>ṭiṭṭi surguna</i>	'woodpecker'	<i>kukuṇ</i> <i>kukum</i>	/ 'peacock'
<i>elam</i> / <i>ṇelam</i> (H.)	'cital deer'	<i>gṣak</i>	'monkey'
<i>nsɔnḡaṭ</i> (H.)	'squirrel'	<i>ḡurka</i>	'panther'
<i>kukusag</i>	'tiger'	<i>ṭukka</i>	'part of an ant hill'
<i>ḡurapi?</i>	'nest of a bird'	<i>ṇsaṭpi</i> (H.)	'(meaning needed/confirm context)'

4.3 Forest Ecology and Landscape Elements

Lexical items in this category, such as *kunḁa* ‘a hill deity or forest spirit’ and *kōman* ‘hill, forest’, indicate how spirituality and geography are combined in the Bonda people’s worldview. Women think of the forest as a sacred space inhabited by deities and ancestors, rather than as a simple neutral space. Their linguistic forms describe various types of terrain (fine, rough) as well as trees and elevations, indicating an ecological diversity and ritual geography. With language, each word implies adherence to practices or moral rules, such as not cutting trees near sacred hills or stumps. This vocabulary encapsulates and conveys environmental zones that typically dictate agricultural and ritual activities. In this way, the language representation of the forest serves as an indigenous environmental ethic based on reverence, restraint, and sustainability.

Remo Word	Gloss
<i>eri</i>	‘stump of tree’
<i>kuṭ</i>	‘stump of tree’
<i>kuruy H.</i>	‘stump of tree’
<i>kunḁa</i>	‘forest, hill, deity presiding over the hill’
<i>kōman</i>	‘hill, forest’
<i>kōḁm De.</i>	‘kadam tree Nauclea cadamba’
<i>nḁainḁa</i>	‘a tree looking like a date palm tree’
<i>ṅgunrak’, ṅgunraḁge, ṅgunrágle</i>	‘date palm’
<i>ḡṣaṅte tendka</i>	‘tree’
<i>taṛek De.</i>	‘the other side of tree stem, etc.’

4.4 Ethno-biological and Cultural Ecology

In this category, there are some like: *jaṛa* ‘castor plant’, *kōriṅ* ‘grass’, and *kunḁa* ‘forest deity’ which show the interconnectivity of biology, culture, and spirituality. Bonda women’s ecological identity is constructed in active practice by linking their resource uses to ritualistic symbolism. The plants

and trees used for healing, worship, and subsistence are not just things, gestural objects, but emblematic of spiritual significance. The way this particular community categorises flora reflects ethno-biological precision through gendered labour and an ecological cognition of their surroundings. This language creates connections between agriculture, health, and belief, which demonstrates a holistic ecological worldview. Nature becomes a part of social and spiritual order through its everyday vernacular.

Remo Word	Gloss	Remo Word	Gloss
<i>uli ula</i>	‘eco word’	<i>kasa bai</i>	‘unripe’
<i>jaṛa De.</i>	‘castor plant’	<i>pala semuk</i>	‘plant’
<i>koriṇ, kireṇ</i>	‘grass’	<i>kāraiṇ</i>	‘grass’
<i>ku?ṛe</i>	‘black berry edible fruit’	<i>kəɖəm De.</i>	‘kadam tree for ritual’
<i>kunḍa</i>	‘hill deity forest spirit’	<i>gu?ṇrem</i>	‘hunter’

4.5 Ecological Actions and Human–Nature Interaction

Action verbs such as *ga?* ‘to collect leaves from a tree’ and *gu?ṇrem* ‘hunter ecological role’ capture the performative dimension of Bonda ecological life. These words highlight human-nature interaction as a moral and ritualised process rather than an exploitative one. Women’s daily actions like collecting, sowing, or offering embody ecological reciprocity learned through oral transmission. The linguistic emphasis on reverence, seen in terms like *uli-ula* ‘eco word’, reflects a consciousness where every act toward nature carries ethical weight. Through their language and labour, Bonda women perform conservation as a lived practice, ensuring the continuity of ecological wisdom across generations.

Remo Word	Gloss / English Meaning
<i>ga?</i>	‘to collect leaves from a tree’
<i>kasa</i>	‘unripe knowledge of ripeness cycle’
<i>gu?ṇrem</i>	‘hunter ecological role’
<i>kunḍa</i>	‘deity presiding over the hill sacred ecology’

uli ula

‘eco word reflecting environmental reverence’

5 Gendered Roles and Ecological Responsibilities

Field research demonstrates that Bonda women occupy a key role in managing plant diversity and ensuring ecological integrity through deeply gendered practices. Women are entirely responsible for the selection and storage of seeds, with the use of bamboo seed baskets *penga kuyi* that store the advantages of speaking local varieties for planting and matrilineal transfer of agroecological knowledge. Women’s elder kin agree collectively to cut trees, but are discouraged from cutting sacred trees, indicating a regulated process of graduated deforestation ritualised authorisation. Women alone maintain sacred groves, regularly cleaning and maintaining boundaries (uninvited males are completely prohibited from entering these spaces) that represent sites of biodiversity patches linked to spiritual integrity. In addition, women’s efforts to promote river care, including cleaning, restricting washing areas, and other care, represent their reverence for *Jora Devi*, the river goddess, ultimately relating to spiritual commitment toward the care of rivers as symbols of purity. Similarly, regulated burns that women conduct post *Pat Kanda Parab* illustrate a scientific understanding of soil regeneration and pest controls, and are conducted under ritual order. In these interrelated practices, Bonda women demonstrate clearly that their ecological awareness is developed through both practical awareness and sacred obligation.

Activity	Responsibility	Field Data	Outcome	Function
seed storage & selection	women 100%	women maintain bamboo seed baskets <i>penga kuyi</i>	conservation of traditional crop diversity	matrilineal seed lineage

tree cutting decision	collective women elders approve	cutting is restricted to non-sacred trees	controlled deforestation	ritual authorisation required
sacred grove maintenance	Women only	regular cleaning, no male access cleaning streams,	preservation of biodiversity patches	spiritual purity and ecological order
river care	women groups	restricting washing zones	pollution control	reverence for <i>jora devi</i>
fire management	men + women joint	controlled burning after <i>pat kanda</i>	soil fertility and pest control	sacred timing under the deity's sanction

6 Traditional Ecological Laws and Sanctions: A Discussion and Analysis

The community's environmental ethics operate on a system of moral and spiritual governance provided by the *Panch Suru*, the women's council. Crimes such as cutting a sacred tree, *suru mali* or polluting the river *jora bandi* will accrue ritual responses such as animal offerings, fines of grain, or community cleaning to restore the relationship between people and nature. The *Gurumai* 'elder women' will conduct purifications, lead apology songs, and indicate sanctions, recognising that ecological restoration requires cultural, or moral, sanctions rather than coercion. Overharvesting bamboo or burning forests too soon can lead to temporary expulsion or fines, which are also constantly reinforced by the 'good' or 'bad' practice of the group, encouraging collective activity for sustainability. The punishments are educational, not punitive, reminding everyone that ecological balance is a moral and spiritual necessity.

Women are the leaders of such laws and therefore act as both custodians and enforcers of ecological order. This is a profound example of indigenous environmental governance traced through reciprocity and restoration.

Violation Type	Community Penalty	Purpose Belief	/ Women's Council
cutting sacred tree <i>suru mali</i>	one chicken + millet offering to forest deity	atonement; restores balance	gurumai conducts purification ritual
polluting the river <i>jora bandi</i>	ritual apology + cleaning task	restores the purity of the water spirit	women lead apology songs
overharvesting bamboo	one-month access ban	prevents depletion	women monitor regrowth
burning forest before ritual	fine of grains + social apology	prevents premature soil loss	women elders enforce ban
killing a sacred animal	community feast to honor spirit	spiritual reconciliation	women lead mourning ritual for <i>gudi rem</i>

7 Cognitive Linguistic Patterns and Environmental Metaphor: A Critical Analysis

The Remo language contains a wealth of ecological vocabulary that encodes the Bonda worldview and its moral relationship with the environment. For instance, phrases such as *banda rem denga* ‘the hill speaks’ or *jora penga anda* ‘the river sleeps’ anthropomorphise nature by representing hills, rivers, and seeds as conscious beings that human beings share with the world. These metaphors serve to provide cognitive models that teach restraint, awareness, and respect towards natural power. The phrases also reflect the community’s recognition of cyclical rhythms; they acknowledge that rivers rest, soil breathes, and

hills sleep, which shows an inherent understanding of ecological regeneration. Women narrate the metaphors, often within songs, folktales, or proverbs, to teach environmentally moral behaviour to the younger generation. Language, therefore, acts as a cognitive and moral medium in preserving environmental awareness through cultural communication across time.

Expression	Literal Translation	Metaphor	Implied Ecological Meaning
<i>banda rem denga</i>	the hill speaks	nature as communicator	listen to natural signs storms, soil, wind cyclical rest;
<i>jora penga anda</i>	river sleeps	nature as a living being	respect ecological rhythm harmony
<i>penga jora suru rem</i>	seed and stream are sisters	interconnected life	between agriculture and water
<i>tiri guma chasa</i>	soil breathes after fire	earth as animate	fire regenerates, not destroys
<i>suru mali anda</i>	the hill sleeps	landscape consciousness	seasonal dormancy; time for rest
<i>gudi rem ponga</i>	animal spirit returns	rebirth in the ecosystem	renewal of animal populations

8 Quantitative Synthesis: Indicators of Sustainability

The quantitative data corroborate the qualitative findings of women's ecological leadership in the Bonda society. About 82% of women are engaged in seed management, supporting the direct conservation of crop biodiversity. Approximately 90% of families observed sacred grove taboos, promoting forest preservation while adhering to spiritual discipline. All families

(100%) participated in *pat kanda Parab*, indicating an act of collective ecological renewal through ritual agrarian practices. The linguistic corpus includes 280 environmental words, of which 45% refer to animate natural entities, indicating high eco-semantic density and cognitive personification of nature. Market data show that 70% of households are headed by women traders who support economic-ecological exchange, and 16 environmental sanctions issued by the *panch suru* in one year demonstrate active forms of local governance. Altogether, these aspects offer integrated evidence of ecological stewardship in which Bonda women support biodiversity conservation, social order, and cultural resilience through interconnected linguistic, ritual, and ecological systems.

9 Conclusion

The findings indicate that Bonda (Remo) women are not only participants in environmental life, but the key agents to a longstanding folkrule of ecological stewardship. Their processing and facilitative roles, in agriculture, forest management, and ritual practice, continue to hold a sustainable relationship with nature founded on reciprocity, restraint, and appreciation. The observations demonstrate that the knowledge of women, inscribed in the Remo idiom, ritual metaphors, and group behaviour, is a narrative for both ecological ethics and cultural considerations for the stewarding of resources. The depth of the Remo language, notably through its anthropomorphising of nature, provides consequential environmental experience through a moral and ethical relationship with the understanding of nature. These cognitive acts illustrate a prodigious environmental text, combined with the culturally embedded aspects of knowledge, that are shared and maintained through generations.

The Bonda perspective endorses women's ecological agency through practices such as seed saving and deforestation, as well as ceremonial cleansing of rivers and regenerating soil as a complex indigenous model of sustainability. These practices

demonstrate that acts of conservation are integrated into cultural life and that they are built around the foundations of identity, community, and governance. The *Panch Suru*, or women's council, also constitutes the institutionalisation of this mindset, utilising moral sanctions and ceremonials that create equilibrium between the public and environmental activity. In this way, gender, language, and ecology converge into a comprehensive moral system that contributes both to biodiversity and social sustainability. Today, as global and national policies often exclude indigenous ways of knowing, it is important to recognise the ecological intelligence of Bonda women. Their practice of stewardship is a timeless model of an enduring, sustainable lifestyle, one that is reliant on emotional, linguistic, and spiritual attachment to the land rather than externally imposed regulations. This study highlights Bonda (Remo) women as political actors of ecological stewardship and cultural sustainability, arguing that Indigenous knowledge systems especially those practiced and communicated by Indigenous scholars should be regarded as living, dynamic systems of knowledge, rather than simply being static objects to be conserved or Instead, the Remo women's wisdom can serve as important knowledge systems of the past and a practice of guide for ecological futures on tribal landscapes in India.

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Understanding the Humanistic Approaches in the Changing Needs of Language Teaching and learning: An Insightful Study

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ABSTRACT

The proposed research paper seeks to explore various humanistic approaches in language teaching, with special reference to the evolving needs of contemporary learners. It aims to examine how these approaches respond to the realities of today's classrooms, where inclusivity, learner autonomy, and emotional engagement are increasingly vital. This study will analyze the core principles and practical applications of humanistic methods, focusing on how they empower both teaching and learning processes. By critically looking into the multiple dimensions of these approaches, the paper hopes to highlight their relevance in creating learner-centered, responsive, and transformative language classrooms.

Keywords: *Humanistic Concern -Paradigm Shift -Learners' Autonomy- Heterogeneous Nature-Language Acquisition and Learning—Learner Cantered Class Room-Innovative Methods-Era of AI*

1 Introduction

Humanistic approaches have become central to modern language teaching methodologies. These approaches emphasize the development of the whole learner emotionally, socially, and cognitively fostering a more inclusive, empathetic, and student-centered classroom environment. In the rapidly evolving landscape of education, language teaching is witnessing a paradigm shift. one that aligns with the changing cognitive, emotional, and technological needs of learners. Among the emerging methodologies, humanistic approaches have gained renewed relevance. These approaches prioritize the learner as a whole person, placing emphasis on individual growth, empathy, personal connection, and self-expression. In the age of Artificial

Intelligence and digital learning environments, humanistic teaching offers a necessary balance by reaffirming the value of human interaction, emotional intelligence, and meaningful communication.

2 The role of the language teachers

Language teachers today are not just facilitators of grammar and vocabulary, but mentors who foster inclusivity, creativity, and learner autonomy. As educational priorities shift from rote learning to competence-based, interactive learning, humanistic methods empower learners to become active participants in their own language journey. By creating a safe, engaging, and supportive classroom culture, teachers can respond effectively to diverse learner needs, making language education more relevant, inclusive, and transformative. The teacher plays a pivotal role as a facilitator, mentor, and guide. By adopting humanistic strategies, such as active listening, empathy, collaborative learning, and respect for individual differences, the teacher can create a supportive and interactive learning atmosphere. This not only enhances language acquisition but also builds learners' confidence, motivation, and communicative competence.

3 The background and need of the humanistic approaches

Humanistic teaching methods encourage the use of real-life experiences, personal expression, and learner autonomy. When effectively implemented, these approaches transform the language classroom into an engaging, meaningful, and participatory space, where every student feels valued and empowered to contribute. Language teaching across the globe is undergoing significant transformation. With the advent of Artificial Intelligence and digital technologies, traditional methods are gradually giving way to more dynamic, interactive, and learner-cantered approaches. This shift marks a tremendous evolution in how languages are taught and learned in the 21st century.

In this context, it is the need of the hour for language teachers to acknowledge these emerging realities and adapt accordingly. Teachers must equip their learners with not only linguistic competence but also with the necessary digital tools and skills that empower them to thrive in a tech-driven world. By embracing innovation while maintaining the human touch, educators can create a balanced and enriched language learning experience that meets the demands of modern communication.

In response to the evolving dynamics of the language classroom, humanistic approaches have emerged as essential tools to meet the diverse needs of today's learners. These methods emphasize learner-centeredness, emotional engagement, and meaningful participation, making students active contributors to the learning process. Given the global shifts in education—driven by technological advancements, cross-cultural interactions, and individual learner diversity—it has become crucial for educators to adopt such approaches in language teaching worldwide.

4 Types of Humanistic approaches

The present paper tries to explore some of the key humanistic approaches that effectively respond to these changing needs and promote a more inclusive, interactive, and supportive language learning environment. These strategies not only enhance linguistic competence but also foster personal growth, motivation, and classroom belonging.

There are four major humanistic approaches that have significantly influenced modern language teaching: the Silent Way Method, Total Physical Response (TPR), Suggestopedia, and Communicative Language Teaching (CLT). Each of these methods places the learner at the center of the learning experience, emphasizing interaction, creativity, and emotional well-being alongside linguistic development. In addition to these core approaches, the Eclectic Method has gained prominence in recent years. By drawing on the strengths of multiple methodologies, the eclectic approach allows teachers to adapt their techniques to the diverse needs, levels, and

contexts of learners. This flexibility makes it especially relevant in today's classrooms, where responsiveness to learners' individual differences is key. The following is the detailed outlook of each method.

4.1 Silent Way Method

The Silent Way Method, developed by Caleb Gattegno and introduced in his influential book *Teaching Foreign Languages in Schools* (1963), is recognized as one of the key alternative methods of language teaching. It is termed “silent” because of the minimal role of the teacher as a speaker in the classroom. Instead, the teacher acts as a facilitator, encouraging learners to discover, create, and solve problems on their own. According to Richards and Rodgers, the Silent Way emphasizes discovery learning, creativity, and problem-solving—making it a powerful humanistic approach. One of its main strengths lies in its ability to promote learner autonomy, divergent thinking, and self-reliance, while also bringing out the innate potential of language learners. However, the method is not without limitations. The teacher's silence can sometimes become a drawback, especially when learners are left to struggle without adequate support. Learning in isolation may hinder collaborative communication, and the method requires a range of specific, well-prepared materials, which may not always be readily available. Despite these limitations, the Silent Way remains a valuable and innovative humanistic approach, particularly for empowering learners and fostering independent language acquisition.

4.2 Total Physical Response (TPR)

Total Physical Response, commonly known as TPR, is a unique and engaging humanistic approach to language teaching, developed by Dr. James Asher, a psychology professor from the United States, during the 1960s. This method stands out for its strong emphasis on the connection between language and physical movement. The core idea behind TPR is that language learning should mirror the natural process of acquiring a first language where understanding precedes speaking. Just as

children learn their mother tongue by responding physically to parental commands long before they begin to speak, TPR encourages learners to physically respond to verbal instructions for example "stand up," "open the door," "touch your nose" as a way to internalize meaning. Dr Stephen Krashen said "allow students to produce when they are 'ready', improvement comes from supplying communicative input, not from forcing production". Advantages of the TPR are: it makes learning fun, stress-free, and memorable. It engages multiple senses, especially for kinaesthetic learners. It is useful for beginner and young learners. It builds listening comprehension before requiring verbal output. It has some limitations like less effective at teaching abstract concepts or advanced language, it may become repetitive or limited over time, it is not ideal for teaching writing and grammar in depth. Despite its limitations, TPR remains a powerful and dynamic tool, especially in the early stages of language learning. It reflects the humanistic values of respect for the learner's natural pace and encourages active, embodied participation in the classroom.

4.3 Suggestopedia

Suggestopedia is one of the most notable humanistic methods of language teaching, developed by Dr. Georgi Lozanov, a Bulgarian psychiatrist and educator. As the name suggests, the method is based on the power of suggestion to enhance learning. It operates on the idea that learners' beliefs, emotions, and mental state can significantly influence the effectiveness of language acquisition. In Suggestopedia, the classroom environment is designed to be relaxed, artistic, and emotionally supportive, often involving music, drama, and comfortable seating. The idea is to reduce psychological barriers and promote a state of "accelerated learning" where understanding happens almost unconsciously or accidentally, rather than through conscious effort alone. Key features of this method are use of baroque music to create a calm atmosphere, positive suggestions to build learner confidence, dialogues and reading materials presented in an aesthetic, emotionally rich way, it is a

focus on whole-brain learning (engaging both logic and emotion).

Advantages: it creates a stress-free, enjoyable learning experience, encourages emotional involvement and motivation, useful in helping overcome anxiety and build self-confidence. Its limitations are like it requires special preparation and environment; it may not suit learners who prefer structured, traditional methods some of its claims lack strong scientific backing. While it has its limitations, Suggestopedia remains a creative and emotionally rich approach, especially helpful in promoting confidence, memory, and relaxation in the language learning process.

4.4 Communicative Language Teaching (CLT)

Communicative Language Teaching (CLT)/ Communicative Language Learning (CLL) is a highly effective and learner-centered approach to language learning that emphasizes real-life communication and student autonomy. This method gained popularity in the 1970s, particularly through the influence of Charles Arthur Curran, and emerged as a response to the limitations of traditional, grammar-based methods. CLT prioritizes the needs, interests, and active participation of the learners. It encourages authentic communication over rote memorization and repetitive drills. In this approach, language is seen not just as a system of rules but as a tool for meaningful interaction. It supports the use of real-world materials, promotes collaborative learning, and values student creativity and self-expression. Key Features: 1. Emphasis on fluency and functional use of language 2. focus on student interaction and participation 3. Use of authentic materials (e.g., newspapers, videos, conversations) 4. encouragement of problem-solving, role-plays, and group activities. Advantages: 1. Builds confidence and communicative competence 2. Encourages student autonomy and motivation 3. helps learners apply language in real life contexts. Limitations: 1 it may overlook detailed grammar instruction 2. requires trained teachers and careful

classroom management 3. evaluation of learning can be more subjective and complex. In today's globalized world, CLT is widely regarded as one of the most effective methods for language teaching. It not only enhances communication skills but also prepares learners for real-world The Eclectic Method of Language Teaching.

5 Eclectic Method

The Eclectic Method is a modern, flexible approach to language teaching that does not rely on a single method or theory. Instead, it draws from a variety of methods, approaches, and techniques, combining the best elements of each to suit the specific needs of learners and classroom situations. This method recognizes that no single approach can address the diverse learning styles, backgrounds, and proficiency levels found in a typical language classroom. Therefore, the teacher must be attuned to the heterogeneous nature of the learners and adapt their teaching style accordingly. The central outline of the Eclectic Method: 1. Not a fixed method, but a thoughtful integration of multiple strategies 2. Encourages teachers to borrow principles and practices from traditional and modern methods (for example, grammar-translation, CLT, TPR, Silent Way, etc) 3. Enables the teacher to respond dynamically to the needs of individual students and classroom contexts. The prominent Advantages: It promotes flexibility and innovation, enhances learner engagement and inclusivity, it supports a balanced development of language skills (listening, speaking, reading, writing) and it can incorporate humanistic, communicative, and structural elements as needed. The relevance of this method are, in today's language classrooms, especially in multilingual and multicultural settings, the eclectic approach is highly effective. It allows teachers to integrate both traditional and humanistic approaches, while also making room for technological tools and learner autonomy. Thus, the Eclectic Method represents a practical, responsive, and inclusive approach to language teaching empowering educators to create adaptive and engaging learning environments.

6 Conclusion:

In the rapidly changing landscape of education, particularly in the era of Artificial Intelligence and technological advancement, language teaching is evolving at an unprecedented pace. While digital tools, smart classrooms, and AI-driven platforms offer vast opportunities, they cannot replace the human touch that lies at the heart of effective language learning. Humanistic approaches remind us that teaching is not just about delivering content, but about connecting with learners—emotionally, intellectually, and personally. These approaches emphasize empathy, creativity, learner autonomy, and holistic development, making them more relevant than ever in addressing the diverse and dynamic needs of today's language classrooms.

However, the true success of any approach, technological or humanistic, ultimately depends on the teacher's role, commitment, and understanding. It is the teacher who interprets the classroom reality, adapts methodologies, and breathes life into the learning process. In this context, humanistic methods offer a powerful framework for teachers to create inclusive, meaningful, and learner-centered environments, even amidst the waves of technological change. Therefore, the future of language teaching must be a balanced blend of innovation and humanity, where technology supports, but the teacher leads with heart, insight, and purpose. To conclude, technology is just a supplementary in the teaching learning process, but not a substitute to the role of the teacher.

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Meaning and Function of Interjections in Baule

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ABSTRACT

Interjections are a marginal but indispensable component of human language. Despite their ubiquity across languages, they remain underexplored in linguistic research, especially in African languages. This paper investigates the meanings, structures, and communicative functions of interjections in Baule, a Niger-Congo language spoken in Côte d'Ivoire. Building upon theoretical frameworks by Ameka and Wilkins (2006), Jakobson (1960), and others, the study categorizes Baule interjections formally into articulated, semi-articulated, and non-articulated types, and functionally into expressive, conative, and phatic categories. Data were drawn from natural speech interactions, complemented by secondary sources, and analyzed qualitatively. The findings reveal that Baule interjections are both monomorphemic and polymorphemic, often carrying rich semantic and pragmatic content independent of context. Unlike interjections in many Indo-European languages, Baule interjections are heavily tonal, with prosodic variation determining meaning. This research contributes to cross-linguistic understanding of interjections by highlighting their role in expressing emotions, cognitive states, social relations, and discourse management in Baule. The study concludes that interjections are central to Baule communicative practices and recommends further cross-linguistic studies to deepen theoretical insights into their place within language typology.

Keywords: *Baule, interjections, semantic meanings, communicative functions*

1 Introduction

Compared to other grammatical categories, interjections have historically attracted limited scholarly attention. Often dismissed as peripheral or paralinguistic features, they have been marginalized in linguistic description and typology (Quirk et al., 1985). However, contemporary scholarship increasingly

recognizes their significance in capturing speakers' emotions, regulating interaction, and structuring discourse (Ameka, 1992; Wharton, 2003).

Despite this growing interest, most studies of interjections have focused on Indo-European languages such as English, French, and German, or on a few Afro-Asiatic and Austro-Asiatic languages (Arabic, Vietnamese). African languages, in contrast, remain underrepresented in this field. This imbalance creates a distorted view of interjections as a universal category, ignoring the specificities of under-documented linguistic traditions.

Baule, an Akan language within the Niger-Congo family, provides a compelling case for the study of interjections. With over three million speakers (Ethnologue, 2013), Baule is among the most widely spoken languages of Côte d'Ivoire. Anecdotal evidence suggests that Baule speakers make frequent use of interjections in everyday communication, both in informal speech and ritualized discourse. These interjections are not mere fillers or paralinguistic markers but perform core expressive, conative, and phatic functions that structure social interaction.

This study aims to address three main questions:

1. What are the formal types of interjections in Baule?
2. What are their semantic meanings and communicative functions?
3. How do Baule interjections compare with cross-linguistic definitions and classifications of interjections?

By answering these questions, this paper not only enriches the description of Baule but also contributes to broader debates on the status of interjections in linguistic theory.

2 Research Methodology

The study employed a qualitative descriptive approach, drawing from field-based linguistic data and documentary analysis. This method was chosen because interjections are context-sensitive, multimodal, and resistant to quantification.

2.1 Data Collection

- Primary Data: Natural conversations among Baule speakers in marketplaces, households, and community gatherings were observed and recorded with consent. Spontaneous interjections were transcribed phonetically to capture tonal distinctions. Accompanying gestures (e.g., head nodding with hum hum) were documented.
- Secondary Data: Published works on Baule and Akan languages were consulted (Amani, 2015; Ameka, 1992). Comparative insights were drawn from cross-linguistic studies (Wharton, 2003; Ameka & Wilkins, 2006).

2.2 Analytical Framework

- Formal classification distinguished between primary and secondary interjections.
- Semantic analysis focused on the mental states or reactions conveyed.
- Pragmatic analysis used Jakobson's (1960) communicative functions.

2.3 Limitations

The study is based primarily on spoken data and does not account for written uses. While data were drawn from multiple dialects, analysis reflects mainly the Sakassou variety.

3 Review of Literature

Interjections occupy a contested space in linguistic theory. Quirk et al. (1985) regard them as peripheral, lacking grammatical integration. In contrast, Ameka (1992) argues that interjections are conventionalized linguistic signs that fulfill semantic and pragmatic functions. Wharton (2003) places interjections along a continuum between showing and saying, emphasizing their hybrid nature.

Ameka & Wilkins (2006) propose a tripartite definition of interjections: formal, semantic, and pragmatic. Jakobson (1960)

offers a functional framework dividing interjections into expressive, conative, and phatic categories.

Most studies of interjections focus on Indo-European languages (English, French, German). Arabic interjections encode politeness and religious invocations, while Vietnamese interjections highlight tonal distinctions. African languages remain less studied, though Ameka (1992) documented Ewe interjections, showing parallels with Baule.

Baule, within the Akan cluster, is a prime example of how interjections integrate into oral traditions and pragmatic routines.

4 Types, Meanings, and Functions of Baule Interjections

4.1 Formal Classification

1. Non-Articulated Interjections: e.g., hum hum (no/stop).
2. Semi-Articulated Interjections: e.g., ahhhh (rising tone = disgust, falling tone = exasperation).
3. Articulated Interjections: e.g., atchuiékééé (amazement).

4.2 Functional Classification

1. Expressive Interjections: wouh! (amazement), djassole! (anger), man wouh oh! (fear).
2. Cognitive Expressive Interjections: hanhannn (agreement), yohhh! (realization).
3. Conative Interjections: yassoua(é)! (attention), bélémi (oh)! (help).
4. Phatic Interjections: Weéh!/Yéh! (response), Yassoi/mobia (greeting).

5 Data Analysis with Examples

Examples:

1. Surprise: wouh! → astonishment at rainfall.
2. Anger: djassole! → anger at disobedience.

3. Fear: man wouh oh! → fear at danger.
4. Agreement: hanhannn → acknowledgment.
5. Attention: yassoua(é)! → summons.
6. Greeting: Yassoi! → market greeting.

6 Discussion

Findings show Baule interjections align with cross-linguistic patterns but with unique features:

- Semantic independence: many interjections are interpretable without context.
- Morphological complexity: some are polymorphemic.
- Tone and prosody: tonal variation crucially alters meaning.
- Multimodality: some require gestures.
- Sociocultural functions: phatic interjections reinforce social bonds.

7 Conclusion

This study examined the meanings and functions of Baule interjections. It identified three formal categories and three functional categories. The analysis showed Baule interjections are semantically rich, pragmatically versatile, and often independent of situational context. Tone and gesture play critical roles. Baule interjections exemplify the central role of interjections in African languages and challenge narrow definitions. Future research should expand to comparative Niger-Congo studies, ritual contexts, and language acquisition.

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Exploring the Impact of Verbal Deficit on Academic Performance of Higher Secondary School Students

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ABSTRACT

The hypothesis of Verbal Deficit suggests that variations in academic success among students can be attributed to their ability to effectively articulate themselves. It also says that some individuals, particularly those from socioeconomically disadvantaged backgrounds, may experience academic difficulties due to deficiencies in their verbal abilities. It posits that, difficulties in using language can significantly impact the ability to perform tasks that rely on verbal processing such as reading, spelling, and comprehending written and spoken language. This particular study aims to investigate the presence of verbal deficits among a group of higher secondary school students of Odisha and analyse the potential impact on their academic achievements, focussing specifically on non-literary or technical subjects. Through a series of verbal and written tests, questionnaires and interviews, the nature and patterns of verbal deficiencies will be examined and compared between students with and without verbal deficits.

Keywords: *Verbal Deficit Theory, Verbal Tests, Academic Performance, Oral Test, Psychological Perspective*

1 Overview

This chapter provides a detailed introduction to the topic of research done in this dissertation. Background information on Verbal Deficit Theory, the objectives, research questions, scope and significance of the study have been discussed in order to understand the purpose of this study.

The term Verbal Deficit refers to difficulties in expression of language, comprehension of language or both, which may affect students' ability to effectively engage with educational material and excel in their studies. The importance of proficient verbal skills cannot be overlooked, as they form the foundation for reading comprehension, written comprehension and effective communication in academic settings.

1.1 Background

The theory of Verbal Deficit suggests that difficulty in the ability of articulation can impact conceptual functions and academic performance of an individual. The theory is otherwise known as "Deficit Hypothesis" and it was proposed by British Sociologist Basil Bernstein. Bernstein got famous for his work on Sociology of Education. His studies are based on the principle that speech habits of lower-class people having little social influence differ syntactically and semantically from those of middle class or upper class who are influential because of their material and intellectual privileges. It also asserts that activities related to linguistic processing may get influenced due to limited verbal proficiency.

1.2 Objectives Of the Study

- To assess the existence of verbal deficits among high school students through various testing methods.
- To identify and analyse the patterns of verbal deficiencies exhibited by the students
- To compare and analyse the influence of verbal deficit on the academic achievements of students.

1.3 Research Questions

- How does verbal deficit influence the academic performance of higher-secondary school students?
- What are the specific characteristics and patterns of verbal deficiencies observed among students?

1.4 Scope and Significance of the Study

This dissertation on Verbal Deficit Theory holds substantial significance with greater scope in the fields like Education, Linguistics, Sociology and Psychology. Firstly, a clear picture on the pattern of verbal deficits among students can be drawn which can be an essential requirement for formulating effective strategies as well as interventions in educational sector. It can also influence diverse fields working for diagnosing disorders related to language and speech. By comparing the academic performances of students, the real-world implications of Verbal Deficit Theory can be analysed. By looking into the components that affect their holistic development in a classroom, educators and policy makers can be encouraged to address variegated linguistic necessities of students in order to form a neutral classroom environment. As the theory has been criticized for being language-specific, there are further scope of testing verbal deficit of an individual on different languages and analyse it.

2 REVIEW OF LITERATUR

2.1 Overview

This chapter deals with the literature and articles that were referred before starting research on this particular topic. The articles and books mentioned here may not directly relate to the topic but definitely contribute to the concept under discussion. Works of several research scholars have been briefly summarized in this chapter.

Literature Review is done essentially in any research dissertation to have preliminary idea about the topic by analysing existing scholarly works, academic articles, books and other sources related to the topic.

2.2 “Verbal And Numerical Abilities of Students in Senior High School in Wajo Regency, South Sulawesi, Indonesia”

The article by Syamsul Bachri Thalib, et al. (2021) published in the journal named International Journal of Sciences: Basic And

applied Research (Pg- 232 to 240) focuses on fundamental skills of high school students like verbal ability and numerical ability. This research aims to focus only on the verbal ability of students. The objective of this study is to give an account of the verbal abilities of new students in the high school and to describe the academic abilities of male and female students. The population is the students of class 10th only and the data was collected from a sample of 991 students from 5 schools. Data was collected by a psychological test (verbal ability subtest) which included understanding synonyms, antonyms and word analogies- total of 25 questions, 10 synonyms, 10 antonyms, 5 word analogies. The highest score was 25 and it was calculated by comparing the mark with the highest value then multiplied by 10. It was found out that female students as compared to male students have better grip on synonyms and word analogies whereas male students are more capable in analysing antonyms. The verbal ability in higher class is less than the low sort.

2.3 “Reading Disability: An Investigation of The Perceptual Deficit Hypothesis”

The experiment in this article “Reading Disability” by Frank R. Vellutino, et al. in the journal CORTEX, (1972, vol-8, page 106-118) examines and analyses an accepted notion that reading disability is caused by visual perceptual deficit. It was presupposed that poor readers comprehend or process visual stimuli in a similar manner as normal readers but are incapable in retrieving the information or input. This phenomenon was assessed by comparing visual skills and oral encoding of disabled and normal readers. Two groups were taken consisting of 34 subjects in each group. Both were comprised of 32 boys and 2 girls. The group comprised of poor readers was chosen from a group of children referred to the Learning Disabilities Centre with the help of reading specialists (each of the children got reading remediation for one or two years). For the normal reader group, the children were judged and chosen by school personnel. Both the groups were provided with tachistoscope exposure of non-verbal and verbal stimuli and then they were

asked to copy it from their memory. The performance of both groups was equal in the case of non-verbal stimuli and it showed variations when it comes to verbal stimuli. The pronunciations of poor readers were characterized by spatial and sequential errors. Poor readers and normal readers are comparable in graphic representation of unpronounceable letters and 3 and 4 letter words, but not in case of five letter words. It was concluded that disability in reading can be ascribed to cognitive aspect rather than perceptual disorder.

2.4 “Childrens’ Communication Accuracy Related to Race and Socioeconomic Status”

This research article published by Thelma L. Baldwin, et al. (1971) in the Journal Society for Research in Child Development (Vol 42, Page 345-357) Attempts to find out the relationship between form and use of language of a child to his/her academic achievements. Precisely speaking, the purpose of the investigation is;

- To find out whether there are differences between socially backward children and middle-class children I language use to successfully comprehend task-related information.
- If the differences exist, to identify the pattern and characteristics of it that account for the differences in accuracy and efficiency.

The sample consisted of 48 dyads, six dyads of boys and six dyads of girls. Subjects were selected from Negro and White fifth graders from low and middle SES (socio-economic status) background. Letter questionnaires were sent to the households of the children and who returned it were selected for the study. The children were divided into two groups as per the four population groups and seated at a table with a screen in between them to prevent non-verbal communication. One group of students on one side of the table were provided with a card with one picture and other group of students were provided with a page with seven pictures. The task for students was to find out

similar pictures through verbal communication. They were given freedom of asking different questions to each other to distinguish the attributes of the pictures. Total ten trials of the experiment were conducted.

Differences in the accuracy of communications were found between SES groups, middle-SES being more accurate than low-SES. White dyads were more accurate than Negro. The differences between low and middle-SES groups were attributed to differences in describing and requesting information about the figures. Middle-SES groups displayed more critical attributes in verbal expressions as compared to low-SES groups.

2.5 “Verbal Deficit and Educational Success”.

In the research paper by C.A. Winch (1985), published in the journal named “JOURNAL OF APPLIED PHILOSOPHY” (vol 2, page 109-120), the relationship between language use and educational success has been discussed and criticized. It examines different theories of verbal deficit to analyse the extent (if any) to which it affects the educational performance. Our languages contain the resources to carry out inductive and reasoning and to make universal judgements. A person is said to be competent in a language if he/she is able to distinguish logical, good and bad arguments under normal circumstances or contexts. Winch argues that to examine verbal competence of two individuals, the researcher needs to see whether the individuals are able to use the same given structures in the same given comparable circumstances or not. Even the differences in frequencies in the use of that particular structure correspond to same degrees of competence (Stubbs,1976). Winch has criticized the theory and proposed that if someone is less logical thinker or reasoner in one language then he/she might be an able reasoner in his/her own language which needs to be examined by looking out at the scope of that languages or speech. According to the present writer, more research is needed on social and cultural barriers to acquisition of full literacy which can be well compared to the educational effects.

2.6 “Pronunciation Problems: A Case Study on English Pronunciation Errors of Low Proficient Students”

This research paper by P. Shak, et al. published in the Journal, “International Journal of Language Education and Applied Linguistics” (2016, vol 4, page 25-35) has focussed upon the problems of pronunciation, which plays a vital role in the scenario of employability and for a successful communication. The objective of this study is to find out the common mispronounced words by low proficient Malaysian students. Twelve low oral proficiency students were identified and selected as the participants. Qualitative method was used to collect data which included reading aloud test and questionnaire. In order to find out the mistakes in pronunciation, data was collected from the audio recordings of participants’ reading aloud test. The findings indicate that vowels (short, long, diphthongs) were commonly mispronounced by the students. It also included consonants (plosives, fricatives, affricates), silent letters and -ed forms.

2.7 Conclusion

The literature review conducted for this dissertation has provided a thorough and inclusive understanding of this study. Through an examination of various sources, journals, books, academic papers, reports diverse perspectives related to the topic have been looked into. Examining different articles have been useful in forming questionnaire for the tests and analysing the future scopes have been easier by studying the views of the critics of this theory. With the knowledge gained from the reviewed literature, this dissertation aims to contribute to fields like Education, Linguistics and Psychology.

3 RESEARCH METHODOLOGY

3.1 Overview

Chapter 3 consists of a brief description about the research methodology used in this dissertation. The methods of data collection and analysis and other significant factors like selection of participants, selection of secondary sources and

ethical considerations have been discussed in this chapter. Moreover, the reason and purpose of the methodology followed have been mentioned.

3.2 Methodology

Research methods are the basic techniques, tools and methods employed by a researcher to methodically approach a problem. It is systematic and acts as a guide through which the reader gets familiarized with the key principles and strategies applied throughout the research process. The main objective of research methodology is to list out the different methods used for obtaining the data and to understand the reasoning behind the selection of the particular method.

The various aspects of a research methodology include –

- The data collecting methods used
- The reason for the preference of the particular method used
- Information on the selection of participants
- Information about the list of instruments used in the process
- The data analysis technique used
- Ethical considerations taken during the study

The research method adopted in this study is a mixed-method approach, which combines both qualitative and quantitative elements. A comprehensive analysis study was ensured by following the mixed-method approach. Quantitative method was used to show a distinction between students with and without verbal deficits by comparing their marks obtained in the written test. Quantitative data were collected to investigate whether the academic performance of a student gets affected by his verbal ability. Qualitative method was adopted to examine and investigate the nature and pattern of verbal deficits observed among students. The total number of participants involved in

this research is 10 of which 5 are boys and 5 are girls. All of the chosen participants are in the same class, studying 12th Science, in a higher secondary college under Odisha Board and their schooling was in English medium.

Different methods have been used for data collection which include questionnaire, written test and verbal ability test. Data, on their subject marks (science and math) of tenth board exams were also collected for the purpose of comparing it with their verbal ability.

Statistical method of correlation analysis has been employed to calculate the strength of relationship between verbal deficit and academic performance. Three anonymous individuals of expertise in English subject were requested for correction of written test papers and same procedure was adopted to evaluate the verbal recordings. Percentage marks of science subjects (Math and Science) and language subjects (English and Social Science) were compared with written test marks individually to examine the influences.

The questionnaire (Appendix A) was circulated to get an idea about the personal details of the informant such as their economic background, class status etc. The written test (Appendix B) conducted, included questions on prepositions, word-analogies, synonyms-antonyms and unseen passage.

Three rounds of verbal tests (Appendix C) were conducted. First, individual oral test was taken with the topic "Talk about your college life and how it is different from school life". For second round, a pair game was arranged where the students were paired in two and they were asked to choose one chit. The chits contained names of different things and some directions. In a pair, one was asked to explain the word by its features and the other was asked to guess it. A group discussion on the topic "Can Google replace teachers?" was conducted for the third round. The time limit given for the verbal ability test was one minute and all three rounds of oral tests were recorded properly.

3.3 Conclusion

This dissertation has adopted both qualitative and quantitative approach as the research methodology to ensure convincing results.

4 DATA COLLECTION AND ANALYSIS

4.1 Data Collection

Different methods have been used for data collection which includes questionnaire, written test and verbal ability test. Data, on their subject marks (science and math) of 10th board exams were also collected for the purpose of comparing it with their verbal ability. The sample was chosen by simple random sampling method and it included 10 students of which five are boys and five are girls.

The questionnaire was circulated to get an idea about the personal details of the informants such as their economic background, social class etc. The written questionnaire included questions on prepositions, word-analogies, synonyms-antonyms and unseen passage. The idea of formation of written test questionnaire was adopted from existing research whereas the personal information questionnaire was designed by me with the help of the supervisor.

Three rounds of verbal tests were conducted. First, individual oral test was taken with the topic “Talk about your college life and how it is different from school life.”

For second round, a pair game was arranged where the students were paired into two and they were asked to choose one chit. The chits contained names of different things and some directions. In pair, one was asked to explain the word by its features and the other was asked to guess it.

A group discussion on the topic “Can Google replace teachers?” was conducted for third round. The time limit given for the verbal ability test was one minute and all three rounds of oral tests were recorded properly.

4.2 Data Analysis

4.2.1 Overview

This research aims to investigate the interdependence of the variables Verbal Deficiency and academic performance of higher-secondary school students. It involves analysing the degree of correlation that exists between the above-mentioned variables. The investigation also finds out different patterns of verbal deficit present among participants and seeks to classify those.

Participants	Prepositions (20)	Synonyms (10)	Antonyms (10)	Word Analogies (10)	Unseen Passage (50)	Total (100)
1.	18	6	3	7	44	78
2.	14	0	2	4	30	50
3.	14	3	3	7	34	61
4.	17	0	5	7	39	68
5.	15	3	4	7	41	70
6.	6	0	0	2	14	22
7.	9	0	0	1	25	35
8.	6	0	0	1	16	23
9.	15	0	2	4	30	51
10.	15	3	5	6	38	67

Table 4.1.2 Marks Secured by Participants in Written Test

This table represents scores secured by the participants in written test. The written test was conducted for all of the ten participants to compare it with their academic performance and to find out the pattern of verbal deficiency.

The questionnaire included twenty marks of prepositions questions, twenty marks of synonyms-antonyms, ten marks

word analogies and fifty marks of unseen passages, which add up to hundred marks.

Use of prepositions plays very crucial role as they show relationships between different parts of a sentence by providing clarity and context. Prepositions in communication provide additional details that enhance the meaning of sentences. Synonyms- antonyms help to increase knowledge in vocabulary, comprehension and language skills. To understand interrelationship between words, analysing word analogies is a prerequisite. In order to test the comprehension skills in both reading and writing, unseen passages have been included in the questionnaire.

Participants	English (100)	Math (100)	Science (100)	Social Science (100)
1	86	76	88	77
2	85	72	80	75
3	81	71	82	84
4	88	80	76	84
5	87	83	94	84
6	68	63	72	62
7	70	73	71	71
8	77	75	73	72
9	82	86	96	89
10	92	85	86	94

Table 4.1.3 Marks Secured by Participants in Tenth (10th) Board

Marks secured by the participants in their tenth board exams have been listed here in the table 4.1.3. It shows marks secured in science subjects, which are Math and Science along with language subjects, which are English and Social Science.

4.2.2 Correlation Between Verbal Deficit and Academic Performance

Interrelationship between Verbal Deficit and academic performance is a prerequisite to explore the impact of one upon another. It helps in assessing the degree of effect one renders on other to demonstrate the domination. Here, in this study the statistical method of correlation has been used and applied on the data to measure the strength and direction of relationship between two variables. Correlation coefficient has been calculated to identify the strength of relationship.

Participants	Written Test Marks	Academic Performance (includes Math and Science marks)			
1	78	164			
2	50	152			
3	61	153		written	academic
4	68	156	written	1	
5	70	177	academic	0.677206	1
6	22	135			
7	35	144			
8	23	148			
9	51	182			
10	67	171			

Correlation coefficient = 0.67

Table 4.1.5 Correlation Between Verbal Deficit and Academic Performance (Science and Math)

Participants	Written Test Marks	Academic Performance (includes Eng and Social Science Marks)
1	78	163
2	50	160

3	61	165		written	academic
4	68	172	written	1	
5	70	171	academic	0.816771	1
6	22	130			
7	35	141			
8	23	149			
9	51	171			
10	67	186			

Correlation coefficient = 0.81

Table 4.1.6 Correlation Between Verbal Deficit and Academic Performance (English and Social Science)

Range	Strength of Association
0	No association
0 to 0.25	Negligible association
0.25 to 0.50	Weak association
0.50 to 0.75	Moderate association
0.75 to 1	Very strong association
1	Perfect association

Table 4.1.7 shows the range of correlation coefficient to corresponding strength of association.

According to this, Table 4.1.5, having correlation coefficient 0.67 shows moderate correlation between the variables, which advocates that students' mathematical aptitude exercises moderate influence on their ability to speak or communicate effectively.

Table 4.1.6 displays correlation coefficient 0.81 which is very strong correlation, exhibiting strong interdependence between students' verbal ability and subjects requiring linguistic skills like English and Social Science.

4.2.3 Analysing the Influence of Verbal Deficit on Academic Achievements

In order to examine and interpret the influence of verbal deficiency on academic performance of the students, they were

categorized into two groups on the basis of the marks obtained in written test and the oral(verbal) test conducted. Participants who secured less than fifty or around fifty marks out of hundred have been categorized under students with verbal deficit. The academic results were again divided into two parts for a clear understanding (science subjects and language subjects). Then, the academic results of each category students were compared.

participants	Written test marks (100)	Math and science (%)	Eng and social science (%)
2	50	76	80
6	22	68	65
7	35	72	70
8	23	74	74
9	51	91	85

Table 4.1.9 Students with Verbal Deficit

Table 4.1.9 shows the list of students having verbal deficit, who have been categorized according to their marks obtained in written test and verbal test. Percentage marks secured by the students in their 10th Board exams have been mentioned here. The marks have been again categorized into science subjects and language subjects.

The table suggests that much difference cannot be found out between the marks of their science subjects and language subjects, which indicates that those students who lack in their ability to express themselves, do not lack behind in their academics. The influence of verbal deficit on their academic performance is found to be negligible. Moreover, it can be noticed that in three cases, science subject marks top the language subject marks. This can be attributed to the fact that questions formed on science subjects need not necessarily contain linguistic features or different aspects of language which can cause any problem in comprehension. Whereas, language subjects compulsorily focus on various aspects of language that needs to be understood clearly before answering the questions.

Participants	Written test marks (100)	Math and science (%)	Eng and social science (%)
1	78	82	82
3	61	76	83
4	68	78	86
5	70	88	86
10	67	85	93

Table 4.2.0 Students Without Verbal Deficit

Table 4.2 shows the list of students without verbal deficit and their percentage marks secured by the students in their 10th board exam. By examining the table, it has been found out that students did perform well in both science subjects and language subjects without any influence on one another.

4.2.4 Pattern of Deficiencies Observed Among Students

From the three types of verbal tests conducted, the pattern of deficiency can be analysed.

- **Lexical Gap-** It was noticed that students often got stuck in finding and using correct lexical items which suit the given context. Same thing can also be noticed in their written test scores for synonyms and antonyms. It can be deduced that lack of linguistic knowledge in synonyms and antonyms could be a factor in their usage of words in different contexts.
- **Lack of functional words-** Functional words like tense, prepositions were found to be missing in most of their sentences. Students were found to be confused between prepositions like ‘beside’ and ‘besides’.
 - (1) there is a small cottage besides my farm.
 - (2) I know German beside English.
- **Difficulty in Comprehension-** It was noticed that students with verbal deficit did not even attend some of the questions or have answered in a way which shows that they have misunderstood the questions. From this it can be deduced

that these students lack in comprehending questions which affect their results.

- Malapropism- a funny mistake when an individual uses a word that sounds similar to the word, they meant but has a completely different meaning.

(3) spent in place of sapient

(4) secrete in place of secret

(5) distribute in place of distinguish

- Parts of Speech- Students were observed to get confused between different forms of words. They have been found to use obvious(n) in place of obviously(adj) and vice versa.

4.2.5 Analysing Observations from Verbal or Oral Test

- Students were observed facing problems in formation of sentences.
- Students were found to be using short forms of words like “wanna”, “gonna” etc.
- Most of the content were repetitious.
- Boys were found to be more outspoken and using formal speech as compared to girl students.
- Influence of first language can be noticed in their pronunciation.

4.2.6 Personal Information Obtained from Students

Through Questionnaire

The questionnaire was set and distributed among students to obtain personal information about students.

Participants	Parents' education (Father and mother)	Parents' occupation (father and mother)	Parents' income (father and mother)	Caste/ social class
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			mother)	
1	+2, +2	Shopkeeper, housewife	1 lakh No income	General
2	Graduate BA	Businessman housewife	3-4 lakhs	General
3	10 th pass 5 th pass	Driver homemaker	1 lakh	General
4	Late +2	teacher	15,000	General
5	+2 pass 10 th pass	Farmer housewife	50,000	Scheduled Cast
6	+3 +2	Farmer housewife	10,000	OBC
7	+2 +2	Army man housewife	80,000	Scheduled Cast
8	+2 10 th	Service housewife	50,000	Scheduled Cast
9	10 th 7 th	Late housewife		OBC
10	Graduation 10 th	Farmer homemaker	60,000	OBC

TABLE 4.2.4 Personal Information of Students

By analysing and interpreting the questionnaire, which included many self-assessment questions, it was found that most students do not feel confident while speaking in public although they rate their verbal ability as good or excellent. Some of them are interpreted as struggling to understand concepts due language barrier but that, according to them, do not affect their academic performance.

Social and economic background of students with verbal deficit can be analysed from the table 4.2.4. Their social background and parents' education can be considered as factors that might have deprived them in getting an environment for a full-fledged language development. Critical age period that lasts from birth till age 17-18 is very crucial for a child as this period makes it easier for him/her to learn a new language. Languages learnt in this age period contribute deeply to their development of language skills. Therefore, the environment, social class,

language use and attitude of that surrounding essentially influence the verbal ability of a child.

4.3 Conclusion

Correlation between verbal deficit and academic performance has been calculated to analyse the influence of one on the other. Different characteristics of verbal deficiency has been analysed to understand the pattern of it.

5 SUMMARY AND CONCLUSION

5.1 Overview

This chapter deals with the conclusion of this dissertation. The research and its results have been summarized here. This chapter also deals with the limitations present in this study with probable reasons for it.

5.2 Conclusion

1. The research has focused on analysing and examining the verbal ability of higher-secondary school students.
2. It has tried to assess the existence of verbal deficit among students through various testing methods.
3. It was conducted in order to find out the pattern of verbal deficit and the extent to which it influences the academic achievements of the students.
4. The influence of verbal deficit on academic performance was found to be negligible.
5. The correlation of verbal deficit to language subjects was found to be strong and it was found to be moderate for science subjects.
6. The pattern of deficiency can be attributed to choosing lexical items, sentence structure, functional words, mother-language influence etc.
7. Psychological perspective suggests that there are separate faculties for language and mathematical operations in human brain. Hence, both cannot influence each other.

5.3 Limitations of the Study

Due to time constraint, the sample size was limited to only ten students. More samples could have produced more effective and accurate results. Moreover, external factors like exam pressure of students could have influenced their performance in the tests which could have affected the accuracy of the result.

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LEXICAL VARIATION IN KUI LANGUAGE OF ODISHA

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ABSTRACT

This study examines lexical variation in Kui as spoken in three regions of Kandhamal district in Odisha: Baliguda, G. Udayagiri, and Phulbani. Based on fieldwork combining natural interaction, guided elicitation, and observation, the study documents how speakers choose different words for the same concepts across routine and ritual settings. The analysis centres on frequently used body-part terms and ritual vocabulary, since these items appear regularly in daily interaction and carry shared cultural value. The results show that everyday vocabulary displays clear region-based patterns that speakers learn, recognise, and sustain through regular use, while ritual vocabulary remains tightly regulated through community practice and elder guidance. Contact with Odia shapes lexical choice in schooling, markets, and public interaction, yet it does not displace core Kui forms within village life. Regional comparison points to uneven contact, with stronger Odia presence in Phulbani, moderate exposure in G. Udayagiri, and greater continuity of local forms in Baliguda. The findings show that lexical change in Kui follows selective paths shaped by setting and social authority rather than uniform spread. By documenting internal variation across regions and domains, the study shows how Kui-speaking communities manage continuity and change through everyday use and shared norms, which supports sociolinguistic accounts that link variation to social practice and contact conditions.

Keywords: *Dravidian, Lexical Variation, Tribal, Identity, Borrowed Words.*

1 Introduction

This paper examines lexical variation in Kui as spoken in three selected regions of Kandhamal district, namely Baliguda, G. Udayagiri, and Phulbani. Using field-based data drawn from everyday speech, the study records how speakers select different lexical items for the same concepts across regions. The focus remains on commonly used vocabulary such as body-part terms and ritual expressions, as these items surface regularly in daily interaction and reflect shared community knowledge. By comparing forms like *tlaa-u*, *Taa-u*, and *TakaLi* for ‘head’, or *muhu*, *muhun*, and *baanaa* for ‘face’, the study documents region-specific patterns that speakers recognize as normal within their own areas. The paper treats these differences as meaningful linguistic choices shaped by local usage rather than as errors or irregularities, drawing attention to how regional speech norms operate within a single language community (Labov, 2001)

The study identifies several widespread aspects of lexical variation in Kui that extend across the selected regions and form a shared pattern rather than isolated differences. One clear aspect is region-based lexical differentiation in high-frequency everyday vocabulary, especially body-part terms that speakers use in routine interaction. Forms such as *tlaa-u*, *TakaLi*, and *Taa-u* for ‘head’, or *muhu*, *muhun*, and *baanaa* for ‘face’, occur consistently within specific regions and appear across speakers of different ages. These patterns show that variation spreads through local usage norms rather than individual choice, which reflects socially grounded variation shaped by repeated interaction. A second widespread aspect involves small sound shifts attached to lexical items, such as *kaaDu* and *kaaLu* for ‘leg’, where phonological alternation accompanies regional identity without blocking mutual understanding. A third aspect appears in the clear domain-based split between everyday and ritual vocabulary. While daily speech allows regional diversity and limited borrowing, ritual terms such as *penu*, *penkaa*, *Aasaa* *penu*, and region-specific words for sacred places remain stable

and protected across communities. Odia forms like *bhajana* or *Aaseerbaada* remain widely known but stay confined to public or mixed-language settings and do not replace Kui terms during village worship. This pattern shows that lexical variation in Kui spreads unevenly across domains and remains shaped by social authority and cultural practice rather than uniform pressure from contact languages.

The influence of Indo-Aryan languages in Kui appears through selective borrowing shaped by sustained contact with Odia rather than through widespread replacement of core vocabulary. Field evidence shows that Odia impact concentrates in public-facing domains such as schooling, markets, administration, and mixed religious events, where speakers often recognise or temporarily use Odia terms like *bhajana* and *Aaseerbaada*. Within village interaction, speakers continue to rely on Kui forms such as *dahapaa*, *gaaRi kaha*, or *mela gibaa*, which indicates controlled contact rather than shift. This pattern reflects a moderate but continuous level of contact, strongest in regions like Phulbani that lie closer to administrative centres, moderate in G. Udayagiri, and lower in Baliguda, where daily life remains locally anchored. Studies on language contact show that such outcomes arise when bilingual speakers manage parallel lexical systems tied to setting and purpose rather than merging them indiscriminately (Winford, 2020; Matras, 2009). In this context, lexical choice and usage in Kui refer to how speakers select words based on region, activity, and social authority. A speaker may choose *tlaa-u* or *Taa-u* for ‘head’ depending on locality, or avoid Odia-derived terms during rituals where elders enforce Kui usage. Lexical choice, therefore, reflects social judgment rather than vocabulary shortage. Research on variation highlights that such choices index place and community norms while maintaining mutual understanding across groups (Eckert, 2012; Jeszenszky et al., 2024). This study treats lexical choice in Kui as an active practice shaped by contact intensity, domain boundaries, and

local regulation rather than as passive borrowing driven by external pressure.

The study also examines how contact with Odia influences lexical choice without leading to complete replacement of Kui vocabulary. It traces borrowing mainly in domains linked to schooling, markets, and public interaction, while showing that ritual vocabulary remains closely guarded through social practice. Terms related to worship, such as *penu* and its expanded forms, remain stable across regions, with variation limited to modifiers that reflect local ritual settings. Speaker accounts reported in the study show that elders actively correct the use of non-Kui words during ritual speech, which points to community control over specific lexical domains. By placing everyday and ritual vocabulary side by side, the paper shows that lexical change in Kui follows patterns shaped by place, use, and social regulation. The study contributes region-based evidence to discussions of language contact and variation, showing how Kui speakers manage continuity and change through daily linguistic practice rather than through formal planning or external pressure.

Kui belongs to the South-Central branch of the Dravidian language family and is commonly placed within the Kuvi–Kui subgroup. Linguistic scholarship situates it within the eastern extension of the Dravidian languages, distinct from neighbouring Indo-Aryan languages spoken in Odisha (Krishnamurti, 2003). The language has developed over a long period within the hilly and forested regions of present-day Kandhamal and adjoining districts, where Kui-speaking Kandha communities have maintained relative continuity of settlement. While Kui shares a historical relationship with Kuvi and other related Dravidian varieties, it displays its own phonological and lexical characteristics that mark it as a separate linguistic system shaped by local histories and sustained regional interaction

Kui remains largely an oral language. Intergenerational transmission takes place primarily through everyday

conversation, ritual practice, oral narratives, songs, and community interaction rather than through formal literacy. This strong reliance on oral transmission makes the language vulnerable to shifts in usage, especially in contexts where younger speakers spend increasing amounts of time in educational and economic settings dominated by other languages. The absence of sustained written domains also means that lexical change and borrowing often occur without formal standardisation, allowing variation to develop across regions and generations

The use of Kui details clear functional division shaped by multilingual practice. Kui continues to be used within households, among kin, during rituals, festivals, and in village-level interactions. This remains central to the social life of Kandha communities, particularly in villages that are geographically remote or closely tied to forest-based livelihoods. Outside these settings, Odia plays a dominant role. Schooling, government interaction, market exchange, and communication with non-tribal populations are conducted mainly in Odia. As a result, most Kui speakers develop functional bilingualism, using Kui for intra-community communication and Odia for formal and external purposes. This pattern is not uniform across regions; villages closer to administrative centres or with higher exposure to schooling and mobility show greater reliance on Odia in daily interaction than more isolated settlements

Sustained contact with Odia has had direct consequences for linguistic change in Kui. Lexical borrowing from Odia is visible in domains connected with education, governance, modern occupations, and market activities. In some cases, borrowed items coexist with older Kui terms; in others, they replace indigenous vocabulary, especially where traditional practices linked to those terms are no longer maintained. These study details process across Baliguda, G. Udayagiri, and Phulbani. Differences in settlement history, mobility, and access to state structures contribute to uneven degrees of contact-induced

change, making lexical variation a central feature of contemporary Kui speech across the selected regions

Lexical Variation of Kui is standardly observed and objectively detailed basing study on:

1. To examine the patterns and range of lexical variation in Kui across the selected regions of Kandhamal district speakers.
2. To identify the influence of Indo-Aryan languages on the Kui lexicon in everyday use.
3. To explore changes in lexical choice and usage across regions and generations relating to local social conditions.

Lexical variation has often remained peripheral within variationist sociolinguistics, where phonological variables dominate analytical attention. This imbalance becomes more pronounced in the study of minority and primarily oral languages, where vocabulary change is frequently described impressionistically or treated as incidental. Recent work calling for closer integration of lexis into variationist frameworks has pointed to the need for approaches that demonstrate patterned lexical behaviour without relying on large-scale quantitative modelling. The studies reviewed here converge on the view that lexical variation operates through social organisation, domain restriction, and repeated practice rather than through random fluctuation.

The study adopts a variationist sociolinguistic framework that treats lexical variation as a patterned outcome of social practice rather than as irregular use. Within this approach, words differ across regions because speakers participate in distinct local networks and shared routines. Lexical choices signal place-based norms that speakers learn through repeated interaction in daily life. Research in variationist sociolinguistics shows that such differences remain stable when they carry local meaning

and social recognition within a community (Eckert, 2012; Bleorțu & Alonso, 2013). In the context of Kui, this framework supports the analysis of body-part terms as region-specific forms maintained through habitual use rather than through formal instruction. The framework allows the study to examine how speakers recognise local forms as appropriate and identify alternative forms as belonging to other regions, which places everyday lexical variation within an ordered social system.

The framework also draws on domain-based perspectives in language contact studies, which explain why borrowing affects some areas of vocabulary while leaving others unchanged. Studies on language contact show that speakers adopt external words when social settings demand them, while culturally sensitive domains remain guarded through shared norms and authority figures (Matras, 2009; Brody, 2008). This perspective guides the distinction between everyday and ritual vocabulary in the study. In Kui-speaking communities, routine interaction permits region-based variation and limited borrowing linked to schooling and markets, while ritual language follows stricter rules enforced by elders. The framework helps interpret this contrast as a product of social regulation rather than resistance to change. By combining variationist and domain-based approaches, the study positions lexical variation in Kui as a socially guided process shaped by place, context, and collective practice rather than by uniform external influence.

The significance of this study lies in its detailed documentation of how lexical variation in Kui functions within everyday and ritual life across Baliguda, G. Udayagiri, and Phulbani. By grounding the analysis in field-based evidence, the study shows that variation follows shared regional norms rather than irregular use. The contrast between body-part terms and ritual vocabulary demonstrates that speakers allow flexibility in routine speech while maintaining strict control in sacred contexts. This finding offers clear evidence that lexical choice in Kui responds to place, activity, and social authority rather than uniform pressure from contact languages. The study also

clarifies how Odia influence remains limited to specific domains linked to schooling and markets, while core cultural vocabulary remains intact through elder supervision and community practice. These observations contribute to sociolinguistic research by showing that borrowing does not signal loss but reflects selective adaptation shaped by social structure and daily interaction (Labov, 2001; Thomason & Kaufman, 1988). For language documentation, the study highlights the need to record regional variation rather than rely on single forms, since local usage carries social meaning and identity. The findings also support cultural studies of Kandha communities by linking linguistic patterns to ritual practice and transmission routes affected by social change (Rath, 2011).

Thomason and Kaufman (1988) provides clear framework for tracing how elements from one language enter another through sustained contact. Their works separate socially motivated borrowing from changes that arise through long-term bilingual use. This distinction helps explain why some Odia words appear in Kui without altering its core structure. Lexical items linked to schooling, trade, and public interaction move into Kui because speakers find them useful in specific settings. These choices reflect social exposure and frequency of use rather than loss of linguistic control. The framework allows researchers to treat borrowed forms as patterned outcomes of contact rather than as random intrusion (Thomason & Kaufman, 1988). The same framework also supports analysis of sound-level adjustment seen among younger Kui speakers in areas connected to markets and towns. Phonological shifts appear alongside borrowed vocabulary, yet they remain limited in scope. Such changes follow regular paths shaped by repeated interaction with Odia speakers. This perspective helps place Kui lexical variation within a controlled contact setting where speakers maintain boundaries while adapting select features. The model strengthens the interpretation of Kui data by linking lexical choice to social conditions and patterns of bilingual use

rather than to structural breakdown (Thomason & Kaufman, 1988).

Rath (2011) documents visible cultural change among Kandha youth through the growing presence of cinema-style Kui songs. This shift shows how younger speakers draw on Odia and Hindi models while composing in Kui. The borrowing seen in song lyrics and style reflects exposure to media and changing leisure practices. These changes show that lexical and stylistic variation often enters through expressive domains before spreading into everyday speech. Rath's observations provide grounded evidence of how contact shapes language use in specific social spaces rather than across the language as a whole (Rath, 2011). Rath also links linguistic change to the weakening of traditional spaces that once supported oral creativity and transmission. The decline of the village dormitory reduced shared settings where elders guided language use and cultural expression. With fewer such spaces, younger speakers rely more on external models, which affects word choice and style. This account helps situate Kui lexical variation within broader social change. It shows that variation connects closely to shifts in community practice, transmission routes, and patterns of interaction rather than to linguistic pressure alone (Rath, 2011).

Brito's (2012) sociolinguistic study details a clear example of how variationist principles can reveal the social meaning of linguistic patterns within a specific community. Focusing on word-final postvocalic /s/ in the speech of residents from City of God in Rio de Janeiro, the study combines interview data with systematic quantitative analysis to show that aspiration of /s/ follows both linguistic conditioning and social patterning. The inclusion of race or color as a central social variable marks an important contribution, since the results show that age and racial identity shape the distribution of the aspirated variant alongside phonological factors such as following sound and stress. By grounding the analysis in a favela setting, the study links language use to lived social experience and shows how speech forms participate in the construction of local identity. The

discussion extends beyond statistical outcomes by highlighting the need to address race as a meaningful social category in sociolinguistic research, particularly in communities shaped by histories of marginalization. This perspective offers a useful point of reference for studies of lexical variation in languages like Kui, where social grouping, place, and community norms guide language choice. Brito's call for more situated and ethnographically informed approaches also resonates with research that seeks to move beyond surface description and examine how language patterns connect to identity, interaction, and social structure in everyday life (Brito, 2015; Eckert, 2012).

Todd (2021) provides a detailed account of how lexical variation operates within small rural communities where multilingual practice forms part of everyday life. The study shows that variation in naming plants and animals does not arise from random choice but from patterned social behaviour shaped by daily interaction, task-specific needs, and speaker experience. By examining how speakers move between multiple languages while referring to the same ethnobiological entities, the study demonstrates that lexical choice reflects how people organise knowledge and mark social belonging. The analysis highlights that variation often cuts across expected categories such as age and gender and instead emerges through shared practices and local groupings. This perspective is useful for understanding how lexical variation functions as a social act rather than as a breakdown of linguistic order, especially in communities where oral knowledge and local ecology guide vocabulary use (Todd, 2021). The insights from Todd's work offer a useful lens for the study of lexical variation in Kui. Like the multilingual setting described in rural Cameroon, Kui-speaking communities operate within layered linguistic environments where speakers manage more than one language depending on setting and purpose. Todd's emphasis on domain-specific lexical choice and socially guided boundaries helps frame Kui variation as a product of lived practice rather than external pressure alone. The focus on how speakers maintain

distinct naming systems while navigating contact supports an interpretation of Kui lexical variation as controlled and meaningful. This approach strengthens the analysis of regional Kui vocabulary by placing it within a broader understanding of how communities preserve knowledge, regulate word choice, and sustain linguistic continuity through everyday use and shared norms (Todd, 2021).

Rizki, Nadra, and Noviatry (2021) examine lexical variation in Javanese as used by transmigrant communities in Dharmasraya Regency and show how relocation reshapes everyday vocabulary. Using observation and conversation-based data, the study maps lexical differences across several settlement points and identifies distinct dialect groupings linked to distance, mobility, and communication routes. The findings show that daily Javanese speech in the transmigrant setting differs from homeland usage, with reduced use of traditional language levels. This shift reflects limited transmission of sociolinguistic norms alongside adaptation to a new social setting. The study demonstrates that lexical variation emerges through routine interaction and settlement history rather than through deliberate language change, which places everyday practice at the centre of dialect formation (Rizki et al., 2021). The study offers a useful parallel for research on lexical variation in Kui, where region and social setting also shape word choice. Like the Javanese data, the Kui study shows that lexical differences reflect place, contact conditions, and patterns of daily use rather than loss of linguistic structure. Rizki et al. highlight how mobility and separation from a homeland affect vocabulary and usage norms, which helps frame Kui variation across Baliguda, G. Udayagiri, and Phulbani as a product of local interaction and exposure rather than uniform influence. The focus on spoken data and settlement-based comparison supports an approach that treats lexical variation as grounded in social practice. This perspective strengthens the analysis of Kui by situating regional differences within broader patterns of language use shaped by movement, contact, and community life (Rizki et al., 2021).

Jeszenszky, Steiner, and Leemann (2024) present a method-focused study that reframes how dialect research accounts for speaker mobility and long-term exposure to linguistic variation. By proposing the Linguistic Mobility Index, the study shifts attention from static speaker location to lived linguistic experience shaped by family background, residence history, work environments, and education. Using data from Swiss German speakers, the authors show that exposure to multiple dialects often explains patterns of change more clearly than commonly tested social factors such as sex or education. At the same time, the findings caution against simple assumptions, since high mobility does not always result in greater change and low mobility does not guarantee stability. The observation that rural areas show notable change despite lower population density challenges views that associate change mainly with urban settings. This approach offers a useful reference for lexical studies like the present Kui research, where uneven mobility, market access, and settlement history shape regional variation. The study encourages closer attention to speakers' life trajectories when interpreting dialect difference, which helps move analysis beyond surface geography toward social experience as a key factor in language change (Jeszenszky et al., 2024).

Work on language contact provides a starting point for understanding how lexical elements enter and circulate within a language. Thomason and Kaufman's distinction between socially motivated borrowing and structural change remains central, particularly in settings of sustained bilingualism (Thomason & Kaufman, 1988, pp. 37–38). Their framework allows borrowed forms to be treated as outcomes of use in specific social domains rather than as indicators of systemic erosion. In the Kui context, this distinction helps account for the presence of Odia-derived items in schooling, trade, and public interaction while core lexical systems remain intact. Rath's documentation of cultural change among Kandha youth further situates lexical and stylistic shifts within changing leisure

practices and media exposure, showing how expressive domains often serve as entry points for contact-driven variation before such forms appear in everyday interaction (Rath, 2011, pp. 112–118).

Variationist and ethnographically informed studies reinforce the view that lexical choice is embedded in social space. Brito's analysis of postvocalic /s/ in Rio de Janeiro demonstrates how linguistic forms acquire meaning through locally salient social categories and lived experience rather than through abstract variables alone (Brito, 2012, pp. 65–70). Todd's work in rural multilingual communities shows that lexical variation reflects shared practices, task-specific needs, and ecological knowledge, cutting across simple age or gender distinctions (Todd, 2021, pp. 84–89). Studies of relocated and mobile populations, such as Rizki, Nadra, and Noviatr's work on Javanese transmigrant communities, further illustrate how settlement history and interactional routines shape vocabulary use over time (Rizki et al., 2021, pp. 214–219). Together, these studies frame lexis as a site where social organisation becomes visible through patterned choice.

Within this perspective, variationist sociolinguistics offers tools for treating lexical variation as ordered rather than incidental. Research emphasising place-based norms and locally recognised forms shows that lexical differences persist when they carry social meaning and are reinforced through repeated interaction (Eckert, 2012; Bleorțu & Alonso, 2013). Domain-based approaches to language contact add a further layer by explaining why borrowing concentrates in certain areas of use while remaining restricted in others. Work by Matras and Brody demonstrates how culturally sensitive domains remain governed by shared norms and authority figures, even under conditions of sustained contact (Matras, 2009; Brody, 2008). Applied to Kui, this combined framework supports an analysis in which everyday vocabulary allows regional variation and limited borrowing, while ritual lexicon remains subject to stricter regulation.

The methodological approach adopted here responds to a recurring challenge in lexical research, particularly in studies of spoken and minority languages, where vocabulary is often treated as supplementary evidence rather than as a structured object of analysis. The present design treats lexical items as socially distributed forms whose patterning can be observed through recurrence, domain restriction, and shared speaker judgment. Rather than relying on numerical frequency, the method focuses on stability across speakers and contexts as the primary indicator of patterned variation, following variationist positions that recognise regularity through distribution and use (Labov, 2001).

Fieldwork was conducted in three Kui-speaking regions of Kandhamal district: Baliguda, G. Udayagiri, and Phulbani. These sites were not approached as static geographical points but as distinct lexical environments shaped by settlement history, market access, and exposure to Odia-dominant public domains. The selection allows comparison of how lexical forms circulate under different social conditions. Variation observed across these regions is treated as an outcome of differential contact and local regulation rather than as isolated divergence. Thirty-six native Kui speakers participated, with twelve speakers from each region. The group included both men and women and ranged in age from approximately twenty to sixty-five years. Speakers were approached not as individual variables but as participants in shared regional norms. The age range allowed observation of continuity and change across generations without presuming linear shift. All speakers reported Kui as the primary language of household and village interaction, alongside functional knowledge of Odia acquired through schooling or economic activity.

Lexical data collection combined guided elicitation, participant observation, and informal interviews. Guided elicitation ensured that the same lexical items were recorded across regions, particularly for high-frequency everyday vocabulary such as body parts and common actions. These sessions took

place in familiar settings, including homes and shared village spaces, which reduced performative responses. Participant observation provided a check on whether elicited forms surfaced in natural interaction, allowing verification of lived usage. Informal interviews supported interpretation by recording speakers' assessments of whether forms were local, shared, or marked. Ritual vocabulary required a separate methodological treatment. Data were gathered through observation of worship practices, festivals, and preparatory conversations linked to ritual events. Where recording during rituals was not appropriate, speakers explained lexical choices before or after the event. Elders and ritual specialists played a central role in clarifying acceptable forms and in describing correction practices. These interactions revealed mechanisms of lexical regulation that differ from those governing everyday speech. Field notes supplemented recordings to capture contextual detail not evident in audio data alone.

Reliability was established through repeated elicitation and cross-checking. Lexical items were confirmed across multiple speakers within the same region and revisited across different sessions and days. When variation appeared, follow-up questions focused on place of use and perceived correctness, allowing distinction between shared regional norms and individual preference. Repetition across age groups and contexts supported identification of stable patterns. The analysis grouped lexical items by semantic domain and examined their regional distribution, treating variation as patterned social practice shaped by contact and local norms rather than as structurally disruptive change (Labov, 2001; Thomason & Kaufman, 1988; Rath, 2011).

2 Lexical Study Case 1

The lexical items examined in this case belong to a small, recurrent set of body-part terms that surface routinely in everyday Kui interaction across Baliguda, G. Udayagiri, and Phulbani. These terms do not appear sporadically or under

elicitation pressure alone. Speakers use them while talking about work-related injuries, physical movement, and household tasks, which makes them available for observation without prompting reflection on language choice. Their frequency and functional load allow them to be treated as a bounded lexical set rather than as isolated examples. Within this set, speakers consistently associate particular forms with particular regions and recognise alternative forms as belonging elsewhere. This shared recognition suggests that variation operates through locally sustained norms rather than individual preference, providing a suitable basis for examining how lexical differences organise themselves within daily Kui speech (Labov, 2001). Body-part terms recur with consistent forms within each locality, and speakers identify alternative forms as belonging elsewhere. The table presents a small but representative set of body-part terms that occur repeatedly in everyday Kui speech. These items were selected during fieldwork because speakers used them frequently in routine conversation related to health, work, movement, and domestic activity. The data emerged through repeated naming tasks during natural interaction rather than isolated questioning.

English	Odia	Phulbani	G. Udayagiri	Baliguda
Head	<i>muNda</i>	<i>tlaa-u</i>	<i>TakaLi / tlaa-u</i>	<i>Taa-u</i>
Face	<i>Muhn</i>	<i>muhu</i>	<i>muhun</i>	<i>baanaa</i>
Thigh	<i>jangha</i>	<i>pDaataa</i>	<i>Kuguju</i>	<i>kumugu</i>
Leg	<i>gooDa</i>	<i>kaaDu</i>	<i>kaaDu</i>	<i>kaaLu</i>

Table 2-1: *Lexical Shift and Variation*

The data emerged through repeated naming tasks during natural interaction rather than isolated questioning. Speakers referred to these body parts while describing daily labour, minor injuries, and household tasks, which allowed the researcher to record

forms used without prompting speakers to reflect on language choice. Each lexical item was confirmed through repeated use across speakers within the same region. When a speaker used a form such as *Taa-u* for ‘head’ or *baanaa* for ‘face’, the same form appeared in conversations with other speakers from the same locality. Speakers also commented on alternate forms when asked whether another word sounded local or external. This process helped establish whether variation reflected shared regional usage or individual habit. The table presents the stable forms that surfaced most consistently during these interactions and forms the basis for examining how lexical variation functions in daily Kui communication.

2.1 Analysis of Lexical Shift and Regional Variation

As per the data in Table 1, The term for ‘head’ shows a clear pattern of regional distinction. Speakers in Phulbani consistently used *tlaa-u* in everyday reference. In G. Udayagiri, speakers alternated between *TakaLi* and *tlaa-u*, often using *TakaLi* in careful speech and *tlaa-u* in casual interaction. Baliguda speakers used *Taa-u* almost without exception. This pattern shows that variation does not arise from uncertainty. Each region maintains a preferred form that speakers treat as normal. The repeated use of *tlaa-u* in Phulbani, *Taa-u* in Baliguda, and alternating *TakaLi* / *tlaa-u* in G. Udayagiri does not reflect uncertainty or fluctuation. These forms circulate through routine interaction and become locally expected. This recurrence matters more than the number of items listed, since it establishes lexical patterning as a shared system shaped by repeated use. The variations reflect local speech habits shaped by repeated use rather than influence from Odia, since all three forms differ from the Odia term *muNda*. The variation fits a regional pattern where sound structure and syllable shape shift without altering meaning, a feature noted in studies of socially grounded variation. Such behaviour aligns with variationist observations that regularity in distribution, rather than uniformity of form, marks systematic variation (Labov, 2001).

The word for ‘face’ highlights a sharper contrast across regions. Phulbani speakers used *muhu*, while G. Udayagiri speakers used *muhun*, which adds a final nasal element. Both forms show a shared base and appear mutually recognizable across regions. Baliguda speakers, in contrast, used *baanaa*, a form not reported by speakers from the other two regions. During field interaction, Phulbani and G. Udayagiri speakers identified *baanaa* as a Baliguda word and did not treat it as interchangeable with their own forms. This shows a case of lexical replacement rather than surface variation. The presence of distinct regional labels supports the view that Kui speakers maintain clear boundaries in everyday vocabulary and recognise regional identity through word choice.

The terms for ‘thigh’ further reinforce region-based patterning. Phulbani speakers used *pDaataa*, a form not shared with the other regions. G. Udayagiri speakers used *kuguju*, while Baliguda speakers used *kumugu*. The close similarity between *kuguju* and *kumugu* points to a shared base with minor sound adjustment, while *pDaataa* stands apart. Speakers from Phulbani described their term as the usual village word and did not report using the other forms. This distribution suggests that body-part vocabulary remains locally anchored and resists levelling across regions. The variation aligns with contact models that treat lexical difference as shaped by social grouping rather than structural pressure from a dominant language (Thomason & Kaufman, 1988).

The term for ‘leg’ shows a more subtle shift. Phulbani and G. Udayagiri speakers used *kaaDu*, while Baliguda speakers used *kaaLu*. Speakers from Baliguda often produced the lateral sound in several similar words, which points to a broader sound pattern rather than an isolated change. This feature appeared across multiple speakers and age groups, which confirms that it forms part of regional speech practice. The contrast shows how small sound differences can signal place-based identity without disrupting mutual understanding. Such variation supports the

idea that Kui change operates through repeated social use rather than loss of form or meaning.

Across all four items, the table shows that lexical variation in Kui remains stable and predictable within each region. Speakers use these forms in daily life without hesitation and recognise alternative forms as belonging to other localities. Odia terms appear alongside Kui forms in bilingual contexts, though speakers do not replace core body-part vocabulary in routine village interaction. The patterns observed reflect selective change shaped by contact, mobility, and local practice rather than uniform borrowing. This finding supports earlier observations that Kui speakers manage lexical choice through shared norms and daily usage rather than through external control or formal planning (Rath, 2011; Thomason & Kaufman, 1988).

3 Lexical Study Case 2

The lexical items examined in this case belong to a restricted domain of ritual vocabulary used during worship, prayer, and references to sacred spaces in Kui-speaking communities of Baliguda, G. Udayagiri, and Phulbani. Unlike everyday body-part terms, these items surface only in culturally marked settings and are subject to explicit expectations about appropriateness. Speakers do not treat them as freely substitutable expressions. Their use is shaped by setting, ritual role, and the presence of elders, who function as reference points for acceptable forms. Within this domain, variation appears across regions, yet it remains internal to Kui rather than drawing on Odia equivalents that speakers otherwise recognise. This combination of restriction and regional shaping allows ritual vocabulary to be treated as a bounded lexical system governed by social regulation rather than by frequency of use alone, creating a distinct site for examining how lexical variation operates under conditions of cultural authority (Thomason & Kaufman, 1988).

	English Gloss	Odia (Standard)	Phulbani Kui	G. Udayagiri Kui	Baliguda Kui
Ritual Vocabulary	blessing	<i>Aaseerbaada</i>	<i>melaagibaa</i>	<i>meLaa</i>	<i>negaaDaa-i</i>
	god	<i>debataa</i>	<i>penkaa</i>	<i>penu</i>	<i>penu</i>
	goddess	<i>debee</i>	<i>Aasaa penu</i>	<i>penu Aajaa</i>	<i>penangaa</i>
	Holy place	<i>Pabitra staana</i>	<i>supaaDi dinaa</i>	<i>negibaahaa</i>	<i>negaaLee baasaa</i>
	bhajana	<i>bhajana</i>	<i>dahapaa</i>	<i>gaaRi kaha</i>	<i>gaaRi kaahite</i>

Table 3-1: Lexicon on Vocabulary of Rituals

The analysis of ritual vocabulary follows directly from the patterns observed in everyday body-part terms. While daily vocabulary showed region-based replacement and sound variation, ritual terms reveal a different mode of lexical control. The table presents words used during worship, prayer, and sacred gatherings across Phulbani, G. Udayagiri, and Baliguda. These items were recorded through observation of ritual events and through explanations given by elders and ritual specialists before or after ceremonies. Speakers treated these words with care and often paused to confirm correct usage, which marked a shift from the ease seen in everyday speech. This contrast allows the study to examine how lexical choice changes when language use moves from routine interaction to culturally regulated practice.

The term for ‘blessing’ shows clear regional shaping without loss of ritual meaning. Phulbani speakers used *melaagibaa*, while G. Udayagiri speakers used *meLaa*. Baliguda speakers

used *negaaDaa-i*. Each form appeared consistently within its region and surfaced during ritual preparation and closure. Speakers did not substitute the Odia word *Aaseerbaada* during worship, even though they recognised it. Elders in all three regions described Kui forms as necessary for ritual speech. This pattern shows that ritual vocabulary allows regional expression while maintaining strict boundaries against external forms. Variation operates within Kui rather than through borrowing, which points to strong community regulation of sacred language (Bax, 2003).

The term for ‘god’ shows the highest level of stability across regions. Both G. Udayagiri and Baliguda speakers used *penu*, while Phulbani speakers used *penkaa*. Speakers identified these forms as referring to the same divine concept and treated them as part of shared religious knowledge. The Odia term *debataa* did not appear in ritual speech. During field interaction, elders corrected younger speakers if Odia terms surfaced in explanations of worship. This behaviour confirms that core religious terms resist replacement and remain anchored in Kui, even in regions with regular contact with Odia. Such control supports contact models that view borrowing as selective and socially guided rather than automatic (Thomason & Kaufman, 1988).

The word for ‘goddess’ shows controlled expansion rather than replacement. Phulbani speakers used *Aasaa penu*, G. Udayagiri speakers used *penu Aajaa*, and Baliguda speakers used *penangaa*. Each form builds on the base concept of *penu* while adding region-specific elements that reflect local ritual traditions. Speakers linked these forms to specific village shrines and lineage practices. This pattern shows that ritual variation often reflects local religious geography rather than language contact. The shared base across regions signals unity, while the modifiers mark local identity. Such structured variation mirrors patterns seen in other ritual systems where form and meaning remain tightly regulated through practice (Rath, 2011).

Taken together, the initial ritual terms already indicate how variation is organised within this domain. Regional forms differ, yet speakers treat them as equally valid within their own communities and do not replace them with Odia words during ritual activity. The evidence suggests that ritual lexis permits variation through internal differentiation while blocking external forms, even in regions with regular contact. Elder correction, pauses for confirmation, and setting-based judgments work together to sustain this boundary. These practices do not eliminate variation; they channel it. Such behaviour aligns with contact models that describe borrowing as selective and socially mediated rather than automatic, and with variationist accounts that locate stability in shared norms rather than uniformity of form (Labov, 2001; Thomason & Kaufman, 1988; Rath, 2011). The remaining items can be read as extensions of this same mechanism rather than as isolated cases.

The term for ‘holy place’ displays the widest surface variation. Phulbani speakers used *supaaDi dinaa*, G. Udayagiri speakers used *negibaahaa*, and Baliguda speakers used *negaaLee baasaa*. Despite the differences, speakers within each region treated their term as fixed and non-negotiable. These words surfaced during references to specific sacred locations rather than abstract discussion. Odia *Pabitra staana* did not appear in ritual contexts. Speakers described the Kui terms as tied to particular hills, groves, or ancestral sites. This shows that ritual vocabulary embeds spatial knowledge and local history, which limits lexical replacement across regions.

The term for *bhajana* further highlights domain-based control. While the Odia term is widely known, speakers used Kui forms during worship. Phulbani speakers used *dahapaa*. G. Udayagiri speakers used *gaaRi kaha*. Baliguda speakers used *gaaRi kaahite*. These forms appeared during singing and ritual narration. Speakers described Odia *bhajana* as suitable for school or public events but not for village worship. This distinction shows how speakers manage parallel vocabularies

based on setting. Such behaviour reflects patterned choice shaped by shared norms rather than by linguistic pressure alone, which aligns with sociolinguistic accounts of variation rooted in social practice (Labov, 2001).

Across all ritual terms, the data show that lexical variation in Kui operates under tighter control than everyday vocabulary. Speakers permit regional shaping within Kui while blocking external forms during sacred activity. Elders play an active role in monitoring usage, which reinforces shared expectations. This contrast with everyday speech confirms that Kui speakers do not experience uniform change across domains. Lexical choice follows context, authority, and cultural value. Ritual language remains a space where continuity holds priority, even as everyday speech allows wider variation shaped by contact and mobility (Rath, 2011; Thomason & Kaufman, 1988).

3.1 Lexical Study Case -3

The third case study examines how Kui speakers manage Odia-derived lexical items in schooling, market exchange, and public interaction while maintaining Kui forms in village and ritual contexts. The same communicative needs receive different lexical treatment based on setting, audience, and social authority. The study shows that Odia influence on Kui appears in a limited and patterned manner, with borrowing tied to public, administrative, and devotional domains rather than to core everyday vocabulary. Terms such as *bhajana* and *Aaseerbaada* represent clear cases where Odia words are known across all regions due to schooling, temple exposure, and public religious events. Speakers across Phulbani, G. Udayagiri, and Baliguda recognised these Odia forms and used them in non-ritual or mixed-language settings. During village worship and ritual speech, speakers avoided these terms and replaced them with Kui forms such as *dahapaa*, *gaaRi kaha*, or *gaaRi kaahite* for devotional singing and *mela gibaa*, *meLaa*, or *negaaDaa-i* for blessing. This pattern shows that Odia-derived vocabulary circulates in shared public spaces while remaining restricted in

sacred village contexts, which supports contact models that link borrowing to social setting rather than structural pressure (Thomason & Kaufman, 1988). The data below draw from field interactions in Baliguda, G. Udayagiri, and Phulbani and illustrate controlled alternation rather than unrestricted substitution. Speakers treat these items as context-bound choices and show clear awareness of when each form is acceptable (Thomason & Kaufman, 1988; Rath, 2011).

1. **School / Classroom:** Odia-derived term: *skuula*
In Kui, Speakers use *skuula* during interaction with teachers, officials, or when discussing attendance and schedules in public spaces. This term indexes formal education and engagement with state-run schooling. But locally speakers avoid this term during village meetings unrelated to schooling.
2. **Book / Textbook:** Odia-derived term: *boi*
In Kui, speakers use *boi* when referring to school materials or written content linked to examinations. This term indicates literacy practices tied to Odia-medium education. But in local prospects elders prefer descriptive Kui phrases when discussing traditional knowledge transmission.
3. **Market / Weekly fair:** Odia-derived term: *haata*
In Kui, speakers use *haata* when discussing buying and selling in mixed-language settings or travel to trading centres. This term marks participation in regional commerce beyond the village. But within the village, speakers refer to exchange activities without using the Odia label.
4. **Money / Cash payment:** Odia-derived term: *paisaa*
In Kui, speakers use *paisaa* in transactions involving shops, transport, or wage discussion. This term indexes monetised exchange and interaction with non-Kui speakers. Locally this term is controlled during ritual

preparation, speakers shift to Kui expressions related to offering and contribution.

5. **Office / Government place:** Odia-derived term: *ophisa*
Kui usage: Speakers use *ophisa* when discussing land records, welfare schemes, or official visits. This term marks contact with administration and bureaucratic spaces. But locally the term does not appear in village council talk that are not related to state matters.

6. **Form / Application paper:** Odia-derived term: *phaaraam*

In Kui, speakers use *phaaraam* when discussing documents for schools, pensions, or identity records. This term signals procedural interaction with state systems. But locally, elders discourage its use in ritual or lineage discussions.

These illustrated samples are few among many such terms which show that Odia-derived words in Kui function as lexical variables whose distribution follows social setting rather than lexical need. Speakers do not treat these forms as interchangeable with Kui vocabulary across all contexts. They use them in schooling, markets, and public interaction where Odia carries authority and shared understanding. In village and ritual settings, speakers avoid these terms or expressions and rely on Kui expressions that are governed by elder oversight. Field interaction confirms that elders correct younger speakers when Odia-derived terms enter ritual talk, which reinforces community boundaries around acceptable usage. This pattern demonstrates socially regulated lexical variation shaped by contact, domain, and authority rather than free synonymy or lexical loss (Thomason & Kaufman, 1988; Rath, 2011).

4 Discussion

The study's discussion is organised around the recognition that lexical variation in Kui operates as a patterned system shaped by region, domain, and shared social practice. Across Baliguda, G. Udayagiri, and Phulbani, everyday body-part vocabulary

clusters into locally preferred forms that speakers treat as normal within their own communities. Items such as *tlaa-u*, *Taa-u*, and *TakaLi* for ‘head’, or *muhu*, *muhun*, and *baanaa* for ‘face’, recur with consistency across speakers and settings. Speakers identify alternative forms as belonging elsewhere rather than as interchangeable choices. This pattern places lexical variation in Kui within the variationist understanding of structured differentiation tied to speech communities, where regularity lies in distribution rather than uniformity of form (Labov, 2001).

Seen from this perspective, the body-part terms do not function as isolated examples but as components of a shared lexical system sustained through repeated use. The presence of small sound differences, such as *kaaDu* and *kaaLu* for ‘leg’, shows that phonological alternation often travels with lexical choice. These alternations remain region-specific and do not interfere with mutual understanding, which suggests that sound and word form operate together as markers of place. What matters here is not the size of the dataset but the recurrence of the same forms across speakers, interactions, and days of fieldwork. Such recurrence indicates that lexical variation is learned and reproduced through everyday interaction rather than arising from momentary preference.

The methodological choices underlying the study support this interpretation by privileging repeated observation over single elicitation. Natural interaction, revisited naming tasks, and cross-speaker comparison allowed patterns to surface gradually rather than being imposed through questioning. Consistency across contexts confirmed that the observed variation reflects shared practice. In this sense, the method does not serve as an independent result but as the condition that makes lexical patterning visible. The findings show that lexical systems in Kui maintain internal coherence while allowing local differentiation, a balance often overlooked when lexis is treated as secondary to phonology.

Contact with Odia appears in the discussion not as a force of replacement but as a factor shaping where particular lexical items circulate. Comparison with Odia terms demonstrates that borrowing concentrates in domains linked to schooling, markets, and public interaction. Core everyday vocabulary, including body-part terms, remains largely unaffected in routine village speech. This distribution aligns with contact frameworks that separate socially motivated borrowing from structural change and treat bilingual practice as context-dependent rather than uniform (Thomason & Kaufman, 1988). Speakers draw on Odia forms when the setting demands them and return to Kui forms within intra-community interaction, which points to controlled lexical distribution rather than shift.

Ritual vocabulary introduces a contrasting lexical regime governed by stricter norms. Across all three regions, speakers retain Kui terms for key religious concepts such as ‘god’, ‘goddess’, and sacred spaces. Variation within this domain appears through compounding and local naming rather than substitution. Forms built around *penu* remain central, while modifiers reflect local ritual practice and sacred geography. Speakers consistently reject Odia terms during worship and report correction by elders when non-Kui words enter ritual speech. This behaviour highlights how social authority and shared expectations regulate lexical choice. Ritual contexts impose tighter constraints than everyday interaction, showing that lexical change in Kui does not operate evenly across domains.

Generational differences appear in the discussion with appropriate caution. Younger speakers report greater exposure to Odia in public and economic settings, yet they continue to follow established norms during ritual practice. The absence of a full generational comparison limits stronger claims, though speaker reports suggest that elders function as custodians of ritual language. This pattern aligns with observations that social change often affects public and expressive domains before sacred practice, where continuity remains central (Rath, 2011).

Lexical change in Kui follows paths shaped by authority, setting, and use rather than by age alone.

The broader comparative material situates Kui within a wider South Asian pattern of lexical variation. Across Indo-Aryan, Dravidian, and Munda languages, high-frequency everyday vocabulary shows region-based differentiation, while ritual and culturally anchored domains remain relatively stable. The parallels drawn with Odia, Telugu, Gondi, Santali, and Ho reinforce the view that Kui is not exceptional in this respect. Instead, its lexical variation reflects settlement history, interactional routines, and local regulation, consistent with patterns documented elsewhere (Krishnamurti, 2003; Bhaskararao & Subbarao, 2017; Anderson, 2019; Mohanty & Panda, 2019).

The findings present that lexical variation in Kui is neither random nor uniformly driven by contact. It operates through socially organised systems that differ by domain and region, allowing flexibility in everyday speech while maintaining continuity in ritual contexts. By foregrounding lexis as an analytic object rather than as an accessory to phonology or contact, the discussion places Kui within variationist approaches that treat vocabulary as a site where social practice becomes linguistically visible

5 Conclusion

The study shows that lexical variation in Kui across Baliguda, G. Udayagiri, and Phulbani follows stable regional patterns shaped by everyday interaction, mobility, and shared social expectations. The analysis of body-part terms confirms that speakers rely on locally preferred forms such as *tlaa-u*, *TakaLi*, and *Taa-u* for ‘head’ or *muhu*, *muhun*, and *baanaa* for ‘face’, which function as recognised regional choices rather than signs of instability. These patterns remain consistent across speakers within each region and reflect learned habits reinforced through daily use, which supports the view that variation operates as a socially organised system grounded in community practice.

The findings also show that contact with Odia shapes Kui in a limited and context-specific way. Odia-derived terms surface mainly in education, markets, and public interaction, while core village vocabulary remains intact. Regional comparison highlights uneven contact intensity, with Phulbani showing greater lexical resemblance due to closer engagement with administrative and educational spaces, G. Udayagiri occupying an intermediate position, and Baliguda maintaining stronger reliance on local forms through restricted mobility.

Ritual vocabulary provides the clearest evidence of social regulation, as speakers across all regions preserve Kui terms for worship, sacred spaces, and devotional practices while allowing only minor regional variation through compounding and local naming. Elders actively guide and correct usage in these settings, which maintains continuity even as everyday speech permits wider variation. Taken together, the findings demonstrate that lexical choice in Kui responds to region, domain, and authority rather than uniform external pressure, and that borrowing and stability coexist through active community control. This outcome reinforces the need for region-based and domain-sensitive documentation when examining lexical change in minority languages under sustained contact.

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Minority in Urban Space: A Case Study of Gujjar and Bakarwal Communities

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ABSTRACT

Urbanization has had a profound impact on the Gujjar and Bakarwal communities in Jammu and Kashmir, influencing their economic, social, political, and philosophical aspects. Historically, the Gujjar community has been engaged in a nomadic lifestyle, relying on cattle rearing and dairy farming for their livelihood. The advent of urbanization, however, has introduced challenges that have undermined these traditional practices. The rise of private dairy companies and modern farming techniques has made it increasingly difficult for these communities to compete, leading many individuals to abandon their ancestral occupations in search of alternative sources of income. As a result, a significant shift has occurred, with Gujjars seeking employment in sectors such as construction, retail, and services. Socially, the urban migration of the Gujjar population has resulted in the erosion of their cultural identity. The Gojri language, which is the third most spoken language in Jammu and Kashmir, is rapidly declining due to its absence in the education system and the dominance of languages such as Hindi, Urdu, and Kashmiri in urban areas. As the younger generation moves away from their rural roots, there is also a decline in traditional customs, practices, and community cohesion. Urban life has introduced a new set of values, leading to a generational divide where younger individuals are less connected to their cultural heritage. Politically, the Gujjar community has long advocated for Gojri language in education institutions and legal protection of their land and rights. A key demand is the implementation of a land protection act to prevent displacement. Philosophically, the Gujjar community has been rich in oral traditions, with folklore, proverbs, and folk songs playing an essential role in the transmission of cultural and moral values. These traditions have historically served as a means of educating the younger generation about respect for elders, community values, and

social cohesion. However, urbanization and the rise of digital media have led to the decline of these cultural practices, diminishing the transmission of core values. As the community becomes increasingly urbanized, the younger generation is at risk of losing touch with their rich cultural heritage. The study aim to address the effects of urbanization on Gujjar communities. For the present paper, an intensive field work has been done in the form of interviews of Gujjar community in a structure and semi structure pattern. The results of the study provides the drastic shift among generations which are considered as the outcome of urban politics and economic reflections that is compared with western context of minority communities in Urban space.

Keywords: *Gujjar, Bakarwal, Folklore, Sociopolitical Reflections.*

1 Introduction

Urbanization has brought significant changes to the modern world, particularly as a result of large-scale migration from rural areas to urban centers in search of a better lifestyle and access to essential facilities. This shift often exposes migrant populations to modernization, which can lead to the erosion of their traditional cultures. The impact of urbanization on culture is often evident in various aspects such as dress, food, language, and social practices. This paper aims to explore the effects of urbanization on the Gujjar and Bakarwal tribes of Jammu and Kashmir, two distinct ethnic groups with rich cultural histories and practices. These communities, traditionally nomadic pastoralists, have long migrated between the hilly Himalayan mountains in the summer and the plains in the winter. The Gujjars typically rear cattle like cows and buffalo, while the Bakarwals are known for their focus on goat and sheep herding. Together, they form the third largest ethnic group in Jammu and Kashmir.

The Gujjar and Bakarwal tribes have preserved their unique cultural practices over centuries, including their dressing, food, and language. Gujjar people spoken a Gojri language

which is part of Indo-Aryan language family that is spoken not only in Jammu and Kashmir but also in parts of Himachal Pradesh, Punjab, and other regions of India and Pakistan. Gojri, with its distinctive vocabulary, grammar, and pronunciation, has been deeply intertwined with the sociocultural life of these tribes. However, as these communities increasingly engage with urban centers and modernization, their traditional ways of life—along with their language—are at risk of being influenced, if not lost altogether. This paper will delve into the impact of urbanization on the Gujjar and Bakarwal tribes, particularly focusing on the changes in their cultural identity, language, and social structures.

2 Literature review

1. Naikoo and others in their paper: socio-Economic conditions of Gujjars in South Kashmir their challenges and strategies, discuss the social and economic aspects of Gujjar communities in four districts of Jammu and Kashmir Kulgam, Anantnag, Pulwama, and Shopian in these paper they discuss major challenges of Gujjar and the Bakarwal tribes such as education backwardness, economic disparity, and how the govt is also showing negligence for improvement in education for Bakarwal tribes.
2. Bandana A. in his paper: Social Status and Economy of Gujjar and Bakarwals of Jammu and Kashmir, discusses Gujjar communities of Baramulla and Kupwara. Authors discuss the culture and customs of Gujjar and Bakarwal communities' insights into different traditional customs of Gujjar and Bakarwal tribes, their marriages, food, dress, and lifestyle. Author discusses different marriage features of Gujjar and Bakarwal tribes in which marriages are fixed in adulthood by negotiation and by the elder member of the family. Bandana talked about the education system of Gujjar and Bakarwal in Jammu and Kashmir. Education status of these communities is not satisfactory as compared to other sections of society and point out that education backwardness in one

of the key factor for poverty, author further discuss the economic condition and economic potential of Gujjar and bakarwal

3. Zameer and Padiyar in their paper a study on modernization and its impact on the traditional lifestyle of Gujjars with special reference to the Rajouri district of j&k.in this paper they discuss the impact of modernization on the traditional culture of Gujjar tribes highlighted the education status of tribes in the modern era and how tribes are going through a transitional phase where there is a shift in literacy rate of tribal people of specially Rajouri district author discusses another urban culture impact on Gujjar and the baker was tribes like many of them switch into another sector for an economy purpose like in business government jobs earlier this tribe's primary source of economy is rearing animal but with the advent of modernization these people shift into sector as well. The author discusses other major aspects of modernization and their usage by `this community such as modern dresses, and modern equipment which are adapted by tribal members along with traditions.
4. Mushtaq. N in the paper tribes in India: tracing the Origin of the Gujjar Community discusses different approaches to the origin of the Gujjar community author in her paper discusses the etymology of Gujjar words and highlights the different hypotheses of the origin of Gujjar words some believe that Gujjar is a tribe which is an Arabs tribes name khazi and other believe it is a word which originated from Persian, or Sanskrit author in this paper talked about the historical pathway through which this community enters into Jammu and Kashmir and India there are different school of thoughts which discuss the migration of Gujjar community in this paper author discuss some of them believe Gujjar originally came from Georgia other believe they are from Greece and one school of thought which belief Gujjar basically from India. The author of this paper discusses the genetic Affiliation of the Gujjar community in different parts of India

Pakistan and Afghanistan at the end Author discusses the lifestyle of the Gujjar communities at present and puts insight into their dressing culture and customs in modern times.

3 Objectives of Study

The objectives of this paper are as follows:

1. To explore the social and cultural aspects of the Gujjar and Bakarwal communities.
2. To examine the traditional folklore of the Gojri language.
3. To analyze the economic challenges faced by the Gujjar community.
4. To explore the political aspirations of the Gujjar and Bakarwal communities.

4 Methodology

The methodology for this study involves both primary and secondary data sources.

1. **Primary Data:** Data is primarily collected from two districts, Poonch and Jammu. Direct interviews and questionnaires were conducted with native Gujjar speakers as well as individuals who have migrated from rural areas to urban centers. These interactions provide firsthand insights into the social and economic aspects of the Gujjar and Bakarwal communities, focusing on the impacts of urbanization and cultural transformation.
2. **Secondary Data:** Secondary data is gathered from a variety of sources, including books, research papers, and academic articles. These sources help provide a broader context and background to the study, offering insights into previous research and relevant theoretical frameworks on urbanization, cultural change, and the socio-economic conditions of these communities.

This combination of primary and secondary data ensures a comprehensive understanding of the economic and social

dynamics of the Gujjar and Bakarwal communities in the context of urbanization

5 Urbanization's effects on the Bakarwal and Gujjar communities

This study aims to provide an overview of urbanization and its effects on several facets, including social, political, economic, and philosophical ones, by describing how it has affected the Gujjar and Bakarwal tribes. Examine the various demands and difficulties faced by the Gujjar and Bakarwal communities, and talk about the benefits and drawbacks of urbanization.

5.1 *Social Status and Challenges of the Gujjar and Bakarwal Tribes in Jammu & Kashmir*

The Gujjar and Bakarwal communities in Jammu and Kashmir are traditionally nomadic pastoralists, migrating between different regions according to the seasons. In the summer, they move to the meadows in the hilly areas, known as *Dhok* in Gojri, and in winter, they relocate to the plains. These communities have a unique way of life, living in mud houses in the plains called *Kotha* during the winter, while in the summer, they reside in small hut-like structures called *Taara* in the hilly areas.

The educational status of these communities is relatively low compared to other sections of society. This is primarily due to the nomadic lifestyle, which creates a gap between teachers and students, making it difficult for children to receive consistent education. The lack of a fixed residence further hinders access to educational facilities, leading to lower literacy rates within the community.

Marriage practices among the Gujjar and Bakarwal tribes are unique. Traditionally, marriages are arranged, often at a young age, with a strong preference for endogamy, marrying within the community. Their traditional dress consists of *Shalwar Kameez*, *Lungi*, and a turban known as *Safo*. The Gojri language, spoken by these communities, plays a vital role in their cultural identity.

However, the advent of urbanization has significantly impacted these communities. Many Gujjar and Bakarwal families, seeking better facilities, have migrated to towns and urban areas. Those who are financially stable have moved to urban centers in search of better access to education, healthcare, and infrastructure. While this shift has brought about improvements in education, healthcare, and overall quality of life, it has also had detrimental effects on their traditional culture.

The younger generation, raised in urban areas, now has access to better educational facilities and modern amenities. However, this exposure to urban life has led to changes in their lifestyle and social practices. Many have adopted modern clothing and lifestyle choices, moving away from traditional attire. The most significant cultural loss, however, has been the erosion of the Gojri language. Despite being the third most spoken language in Jammu and Kashmir, Gojri is not used as a medium of instruction in schools, even at the elementary level. The lack of Gojri's presence in education, media, and other public spheres has contributed to a shift in language use within the community. The younger generation increasingly speaks Urdu and Hindi, with very little motivation to learn or preserve the Gojri language.

5.2 Economic Challenges and Potential of Gujjar and Bakarwal Communities

The Gujjar and Bakarwal communities have traditionally relied on animal rearing and dairy production for their livelihoods. The Gujjar population typically engages in cattle and buffalo rearing, selling products such as milk, butter, and ghee in local markets. In contrast, the Bakarwal community focuses on herding sheep and goats, with their primary economic activity being the sale of these animals. However, as urbanization expands, it has had significant effects on their economic conditions.

One of the key challenges faced by these communities is the change in land use due to urbanization. Much of the agricultural

land in Jammu and Kashmir has been converted for construction purposes, leading to a shortage of grazing land and fodder for livestock. This has resulted in a dramatic reduction in the livestock population, as the communities are unable to sustain their herds due to the lack of available land for grazing. The loss of grazing areas, combined with the pressures of urban development, has severely impacted their traditional livelihood.

Another challenge for the Gujjar community in urban areas is their limited access to land ownership. Traditionally nomadic the Gujjars rely on cattle rearing for their livelihood. However, in the modern context, with the rise of private dairy companies and large-scale dairy farms, the Gujjar community faces significant competition. These private farms, supported by better infrastructure, transport, and modern equipment, make it difficult for the Gujjar population to compete, further impacting their economic stability.

Despite these challenges, urbanization also brings certain economic opportunities. While urbanization has affected their traditional livelihoods, many community members have diversified into other sectors, including government jobs, construction, and private-sector employment. This shift has allowed some members of the Gujjar and Bakarwal communities to access stable income sources outside of their traditional occupations.

5.3 *Political Status of the Gujjar and Bakarwal Communities*

Historically, the Gujjar and Bakarwal communities in Jammu and Kashmir have not been politically active, largely due to their minority status in the region. However, in recent decades, there has been a noticeable shift in their political engagement. Traditionally, these communities showed limited enthusiasm for politics, but with the influence of urbanization and increased awareness, this has begun to change. Today, various ethnic and pressure groups have emerged to advocate for the welfare of the Gujjar and Bakarwal communities, which marks a positive development brought about by urbanization. People in these

communities are becoming more aware of their rights and are increasingly engaging in political and social discourse.

Despite these advancements, several long-standing demands from the Gujjar and Bakarwal communities remain unfulfilled at the ground level. One of the key demands is political reservation within the state assembly, which would ensure better representation of these communities in the political process. Another critical demand is the implementation of a land protection act, which would prevent the displacement of Gujjar and Bakarwal families from their ancestral lands. This demand has been pending for a long time and, despite being a pressing issue, has yet to be fully addressed in Jammu and Kashmir.

5.4 Erosion of Philosophical Values in Urban Areas

Philosophically, the Gujjar and Bakarwal communities have a deep connection to the natural environment, and their cultural practices reflect this bond. Traditionally, these communities have been rich in oral traditions, including folk stories, songs, and folktales, which were often shared in groups. The primary purpose of these narratives was to instill moral and social values, as well as to preserve their collective wisdom. In addition to storytelling, the recitation of poems, particularly for religious worship, was common, especially during important occasions such as marriages, where songs were sung in groups during the *barat* (wedding procession) and in the context of agricultural activities.

Another significant tradition was *kitab perhna*, a practice where the community would gather to recite prayers or poems to mourn the loss of a loved one, typically held in the home of the deceased. This sacred activity not only provided comfort but also helped preserve the social fabric by reinforcing shared rituals and beliefs. The Gujjar and Bakarwal communities have long been rich in oral traditions, using folk songs, folklore, idioms, and proverbs to transmit cultural knowledge and impart moral lessons to the younger generations.

However, in the face of urbanization and the rise of the digital era, these folk traditions are in decline. The younger generation, increasingly exposed to urban life and modern technologies, is less engaged with these cultural practices. As a result, not only is the folk culture diminishing, but the moral and social values embedded in these traditions are also eroding. This shift away from traditional practices in urban areas leads to a disconnection from the community's philosophical roots, weakening the transmission of cultural wisdom and the reinforcement of moral values.

6 Conclusion

while urbanization has provided the Gujjar and Bakarwal tribes with improved living conditions, it has also posed serious challenges to the preservation of their unique cultural identity, language, and traditional practices. Political reservation and land protection continue to be crucial issues that require attention and action from the government to ensure the long-term welfare and rights of these communities. urbanization has brought many benefits, it has also led to the decline of the philosophical values that were once transmitted through the rich oral traditions of the Gujjar and Bakarwal communities. The loss of these practices threatens the preservation of their cultural identity and the moral teachings that have long guided their way of life.

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NEGATIVE FORMS IN BANJARA

Dr. Korra Balu Naik

ABSTRACT

This research article presents a descriptive study of the negative forms in the Banjara language, focusing on their morphological, syntactic, and functional characteristics. Banjara, also known as Lambadi, is an Indo-Aryan language spoken by Banjara communities across several parts of India. Although the language has a rich oral tradition, systematic linguistic descriptions of its grammatical structures, particularly its negation system, remain relatively limited. The present study attempts to examine the major strategies used to express negation in Banjara.

The study investigates the formation and distribution of negative constructions in nominal, verbal, adjectival, and existential sentences. Particular attention is given to negative markers and their interaction with tense, aspect, mood, person, number, and agreement. The research also examines the position of negative elements within the sentence and the ways in which negation affects the grammatical structure and interpretation of utterances. Different types of negation, including declarative, interrogative, imperative, prohibitive, and existential negation, are discussed with appropriate linguistic examples.

1. Introduction

Banjara language is one of the Indo – Aryan language family. Banjara being nomadic tribe scattered throughout the central India with heavy population connection in Maharashtra, Karnataka, Telangana and Andrapradesh. The tribes are Known by various names Banjara, Lambadi, sugali, vanjari, Brinajari, Lamanis , Gurmit. According to Grierson the name ‘Banjara’ has probably developed out of Sanskrit word Banaj/ Vanijya (Trading), because of their main and age-old Vacation (prior to British Trade and Raj) of transportation of food grain and other commodities, the name Banjara is attached to them. The Original home of Banjaras was western Rajasthan. In their folk lore they are depicted as the descendants of Rajputs. Thurston

(1975) explains that the word got its form from the assimilation of the Sanskrit word “Vanijyakara” and some social scientists believe its origin to be from “Vanijya” (trade) linked to their occupation as traders. The other word Lambadi, Labhani, and Labhana is believed to have their root word as “Lavanam” which indicated the salt business, they used to export salt to various places and through this occupation, thus the root word “Lavanam/ Lavana” has taken the form of Laman, Labhani, Lambadi, etc.

They have a long history of migration not so much due to any invasions or the exhaustion of the sources of livelihood as usually the case with nomadic tribes as due to the business transactions as the carriers of merchandise to the invading. Telangana state is geographically surrounded by four adjustment states named by Maharashtra, Chathisghar, Karnataka and Andrapradesh. The Lambada language is continuous its existence in the form of oral communication. As its script has not been developed. In case of necessity of written communication, the script of local predominant language is used. Hence in Telangana also telugu script is used for the such kinds. Because of the influence of regional predominant language is most of the Lambada are generally either bilingual or multi lingual's. However, the influence of the other language belongs to adjustment-states is perceivable in lambada language.

2 Review of Literature

For this kind of interdisciplinary research, a researcher needs to have orientation in multiple fields of knowledge. Hence, certain books and research works in the fields of Lambada history, culture, literature, and language are studied as background knowledge for this study.

Culture Based Studies

- Gona Nayak(1993) worked on culture of Sugalis.
- D. Suryadanjay (2006) investigated life and literature of Banjaras in Nalgonda district.

- J. Shankaraiah (1993) studied customs and traditions of Lambadas in karimnagar district.
- Nagaiahbukya (2010) studied the significance of Lambada festivals in their culture. This study is restricted to Nalgonda district.

These culture-based research works are found to be very useful in present study to understand the cultural significance in Lambada communities. For the present study concerned, many words and expressions used on various cultural occasions are observed in research point of view.

Art and Literature Based Studies

- N. Lalitha (2011) studied lambada songs
- J. Shankaraiah(2000) studied songs of Lambada people who settled in Andhra Pradesh and Telangana.
- T. Suryanarayana (2006) investigated Banjara songs in Ananthapur district of Andhra Pradesh.
- L. Devendar (2011) studied various songs and dances which are generally performed on festivals.
- L. Nehru (2012) investigated about the influence of Telugu on Lambada folk songs. This study was conducted in Warangal district.

In spite of no direct relevance with present research view, all these works mentioned above reveal the connection with culture and lifestyle of Lambada community. Hence these art and literature based studies are also useful in this research as part of background literature.

Language Based Studies

- K. Padmavathi Bai (2000) studied proverbs used by Banjara people
- P. Raghunatha Reddy (2004) investigated Sugali language.

- Banoth Laxman (2009) studied riddles commonly used by Telugu speaking Lambada people.

The language-based studies, mentioned above are very useful as background literature for this research. Some of these have much relevance to the ethno linguistic study since these researches provide some culture specific insights (i.e. about proverbs and idioms) of Lambada language.

Uma Shankar Upadyay (1975) explained the grammar of Lambada language. The book included phonology, morphology, syntax and vocabulary. B. Cheeniya Naik (1998), in his book 'Banjara charithra samskruti pragathi', described various aspects such as history, tradition and culture of Lambada community. This book is a comprehensive description in Telugu language about life and living of Lambadas. Apart from these books, there are some studies to focus in this background. Most of these are written in Telugu language.

3 Methodologies

Researcher is fluent speaker of Banjara and it is also his mother tongue. The data was collected from his native village. It was validated by other speakers from his community. The data for this study was collected through face-to-face interviews. In order to avoid subjectivity, researcher's native experience is used only as supporting clarification to the information given by the informants. By spending days and weeks along with different tanda people, the questions were asked in casual and natural settings. As a part in casual conversation, the basic questions and their linked questions were asked. Since the researcher belongs to Lambada community, the interviews were done in the mother tongue, i.e. Lambada language. This facilitated the questioning and answering without communication gap. In this way, the information given by the informants was recorded for further purpose. Both cultural information and linguistic information are collected for this research.

4 Results & Analysis

The study investigates the formation and distribution of negative constructions in nominal, verbal, adjectival, and existential sentences. Particular attention is given to negative markers and their interaction with tense, aspect, mood, person, number, and agreement. The research also examines the position of negative elements within the sentence and the ways in which negation affects the grammatical structure and interpretation of utterances. Different types of negation, including declarative, interrogative, imperative, prohibitive, and existential negation, are discussed with appropriate linguistic examples

4.1. Negatives

Negative forms are grammatical forms used to express negation, indicating that an action, event, state, or situation does not occur, did not occur, will not occur, or is not true.

Examples:

- *He does not come.*
- *She did not eat.*
- *They will not go.*
- *He is not a teacher.*

In linguistics, negative forms are formed through negative particles, auxiliary verbs, negative affixes, or special negative verb constructions, depending on the language.

In Banjara Language Negatives occur in the verb phrase negating the sentence. There are four negative morphemes viz., ni, koni,,yi and mat

7 4.1.1. “ni”

“ni” precedes all the verb forms (finite and non-finite) and follows all the finite verb forms except the imperative, negating them. When ni follows the tense auxiliaries are dropped.

Examples:

1. nandi ma pa:ni che:ni “there is no water in the river”
river in water there-NEG
2. u: gi:d bo:l sak:e-ni “He cannot sing”
he song sing can-NEG
3. tu ab dʒ: sakas koni “You may not go now”
you now go may not
4. ham to:nekayi haki pa:ɖa:ni “We will not upset you.”
we you PL –dat upset will NEG
5. ma dha:n ka:vu-**ni** “I will not eat food”
1SG food will- NEG
6. mann bu:k la:gari koni. - “I am not hungry.”
1SG-DAT hungry feel NEG
7. o: a:ye-ni “He will not come.”
3PLS come-NEG
8. ma da:ru kannai pi:vuni “I never take alcohol”
1SG alcohol never drink-NEG

An allomorph of ni, -nti occurs only in the third person of the indefinite aspect after the verb.

u karenti 'he does/shall not do'
chenti 'is not'

Another allomorph -i occurs only after the 'is'.
chei 'is not'

4.1.2 “ŋhe:ji”

“ŋhe:ji” is a weaker negative occurring before all the verb forms (finite and non-finite).

8 Examples: -

1. etha ubare:r ŋhe:ni "Standing here is not allowed."
here stand COP-NEG
2. ghar mya:l ka:yi ŋhe:ji "The house is not dirty"
House dirty nothing COP-NEG
3. hame:n ab ti:rika ŋhe:ji "Let us not rest now"
2PLOBJ now rest COP-NEG
4. ma:r dahi pi:sa ŋhe:ji "I have no money"
1SGOBJ have money COP-NEG
5. o: etha ŋhe:ji "they are not here"
3PL here COP-NEG
6. wunde:n ma:lum ŋhe:ji "they do not know"
3PLOBJ know COP-NEG

9 4.1.3. “koni”

“koni” is a stronger negative preceding all the verb forms (finite and non-finite) and following all the finite forms except imperative. Tense auxiliaries are dropped when koni follows.

Examples: -

1. ma ka:le:n ka:do **ko:ni** "I did not eat yesterday"
1SG yesterday eat-PSTNEG
2. u: a:jo koni "He did not come"
3SG come PST- NEG
3. mann kuni di:te- koni "Nobody saw me"

1SG ACC nobody saw-PST NEG

4. ma lakhr-o-koni “I am not writing”

1SG write-MG-NEG

5. ma lakh-ri-koni “I am not writing”

1SG Write-FG-NEG

6. ham lakhre –koni “we are not writing”

We write-PL-NEG

7. u: ka:le:n ka:ji ka:do koni “she did not eat anything yesterday”

3SGF yesterday anything eat PST-NEG

8. u: udʒdʒi ka:d-i koni “She had not yet eaten”

3SGF not yet eat-F NEG

9. u: ʈi:ʃhar koni “He is not a teacher”

3SGM teacher NEG

Note: koni has a variant form konti, which is not very frequent.

4.1.4. “mat”

“mat” is a prohibitive form occurring before and after finite non-aspectual forms except the contingent forms.

Examples:

1. tu dʒo-mat - “Don't go.”

2SG go-NEGCOM

2. ko:-mat - “Do not eat.”

eat-NEGCOM

3. pi: mat “Do not drink.”

drink-NEGCOM

4. a:dʒ ke:t-en dʒo-mat “Do not go to the field today.”

today field-DAT go-NEGCOM

5. dʒorti wa:te kar-mat "Don't speak loudly"

loudly speak do-NEGCOM

6. kanisam ma:r ba:ji saka:ji nammari-koni

"Not even my sister believed me"

Not even 1SGOBJ sister even believe-NEG

7. je:th bi:dʒi pi:je:r nishedam tʃha "Smoking is prohibited here"

Here smoking drink prohibited- COP

8. se: pa:s je:koni "Not everyone passed"

All pass Come-NEG

9. tu a: mat "Do not enter"

2SG come-NEG

5. Particles

These are certain forms occurring at the phrase level connoting various modalities such as emphasis, request, agreement, assumption, etc.

5.1. "to" at least, however

Example: Meaning / Function

ma pa:nʒi to pi:do koni 'Water - however I did not drink'

ma to dʒa:wuni 'I, however, shall not go'

pa:nʒi to pi 'At least drink water'

tu gharene to dʒo: 'You at least go to the house'

5.2. "ko" 'ever'

"ko" indicates indefiniteness.

Example: Meaning / Function

kuŋiko a: jethe etha 'Somebody (do not know who he was) came here'

5.3. "bi" 'also; even'

“bi” indicates intensification and inclusion.

Example Meaning / Function

mar d̪hahi e:k pi:sa bi ʃhe:ni 'I do not have even a pisa'

mar d̪hahi e:k bi p:isa ʃhe:ni 'I do not have even one paisa'

mar d̪hahi bi e:k pi:sa ʃhe:ni 'I also do not have paisa'

mabi d̪ʒa:ro ʃhũ'I am also going'

5.4. “sai” 'please'

This indicates request, suggestion, or advice from the speaker. This particle occurs usually after 'to'.

Example Meaning / Function

tu de:kto sai 'At least you see, please!'

mane ke:to sai 'At least tell me, please!'

5.5. “le” 'agreed, believe'

This indicates agreement (anticipating satisfaction on the part of the listener) or disrespect. This occurs after the verb.

Example Meaning / Function

u moʃi:ja:r ʃhe le! 'Yes he is young (Agreement)'

u ai:s le! 'He will come (Agreement)'

watte ma jaũ ʃhũ le! 'I shall go there (Disrespect)'

u kiðo koni le! 'He did not do it (Disrespect)'

5.5. “kan” 'saying'

This occurs as a quotative particle. Non-quotatively it may indicate purpose or cause

Example Meaning / Function

ma d̪ʒaũ ʃhũ kan u ko (quotative) 'I shall go', he said.

baʃi khama kan ham d̪ʒa:re ʃʃja (purpose) 'We are going to eat bread'

5.6. “kache” 'they say'

This particle makes the speaker non-responsible for his statement, as it indicates that the speaker has received the information from somebody else. This occurs after the verb.

Form Meaning / Function

u ʃjo:r ʃha ka ʃha 'He is a thief, they say'

a:dʒ ʃhutʃi ʃha kaʃha 'Today is a holiday, they say'

u to go ka che 'He had gone; they say'

pi:sa ʃhe:ni kaʃha wo:r dhai 'He does not have money; they say'

Suffixes

This is a class of affixes which are added to words. These suffixes indicate inclusion, emphasis, exclusion, indefiniteness, likeness, etc.

Inclusive Suffix -i 'even; also'

Example / Form Meaning / Function

tui jaro che 'You also are going'

u pisai deni 'He does not give money also'

u kharoi koni 'Also he is not eating'

u aji ayo koni 'He did not come today also'

Exclusive Suffix -i/c 'only'

This indicates: (a) Exclusion, (b) Absoluteness, (c) Identification, (d) Moderation, and (e) Intensification.

Examples: Meaning / Function

tu:dʒ gare:n go (Exclusive) 'You only went to the house'

ma goi koni (Absolutive) 'I did not go at all'

u:dʒ ma:ro be:ta ʃha (Identification) 'He only is my son'

kunḁa aṭṭfo ṭḥa (Moderation) 'Boy is all right'

tu wAtte janoJ koni (Intensification) 'You must not go there (in any case)'

Note: In the exclusive and intensification functions, the particle can occur both in affirmative and negative sentences. In the functions of identification and moderation, it can occur only in affirmative sentences. As an absolute, it occurs only in negative sentences.

Diminutive Suffix -k

It is suffixed to certain pronouns indicating smallness. In certain cases, it indicates indefiniteness.

Example Meaning / Function

katrak 'How much (little)?'

atra-k 'This much (little)'

avḁa-k 'This much (small)'

kase-k 'Like what (Indefinite)'

This suffix is followed by gender-number suffixes, agreeing with the governing noun.

Likeness Suffix -s

It is suffixed to adjectives and pronouns expressing resemblance.

Example Meaning / Function

nankya-so kuṇḁa 'Small (like) boy'

kuṇ-si ḁokri '(Like whom) which old woman'

Conclusion

In Banjara Language Negatives occur in the verb phrase negating the sentence. There are four negative morphemes viz., ni, koni,,yi and mat. "ni" precedes all the verb forms (finite and non-finite) and follows all the finite verb forms except the

imperative, negating them. When *ni* follows the tense auxiliaries are dropped. *ʃhe:ji* is a weaker negative occurring before all the verb forms (finite and non-finite). ‘*koni*’ is a stronger negative preceding all the verb forms (finite and non-finite) and following all the finite forms except imperative. Tense auxiliaries are dropped when *koni* follows. ‘*mat*’ is a prohibitive form occurring before and after finite non-aspectual forms except the contingent forms. These are certain forms occurring at the phrase level connoting various modalities such as emphasis, request, agreement, assumption, etc. In the exclusive and intensification functions, the particle can occur both in affirmative and negative sentences. In the functions of identification and moderation, it can occur only in affirmative sentences. As an absolutive, it occurs only in negative sentences

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