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Diglossia, Reproach, and Celestial Time: Indigenous Astronomy as a Framework for Understanding Ethiopian Verbal Character

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Abstract:
Ethiopian diglossia (Ge'ez/Amharic) has long been described as a functional hierarchy between liturgical and everyday language. However, this classical model does not explain why Amharic and Oromo speakers exhibit both elaborate politeness (yilugnta) and forceful direct reproach among intimates a paradox that challenges universal politeness frameworks. This study investigates how indigenous astronomical knowledge regulates the speech act of Mekdes (loyal reproach) and proposes an integrated model of Ethiopian verbal character that extends diglossia theory beyond the linguistic domain. A mixed methods ethnographic design was employed, comprising structured interviews with 250 participants (145 male, 105 female) across Addis Ababa, Adama, Debre Berhan, Dire Dawa, and Hawasa; 30 hours of naturalistic audio recorded interactions; elicitation of 50 star related proverbs; and extended participant observation during planting seasons and ritual festivals. Mekdes is a face building act characterised by raised volume, slower tempo, direct pronouns, and forward lean – features that signal belonging rather than threat. The heliacal rising of Bakkalcha (Pleiades) marks the transition from polite caution to permissible reproach. Star names (Saddu: unity; Gulshān: revelation; Gabbiya: accountability) encode moral pedagogy. Celestial diglossia a functional split between priestly and farmer level astronomical registers parallels linguistic diglossia and authorises Mekdes through distinct channels. Ethiopian verbal character is not contradictory but bidirectionally regulated by celestial time. The stars provide a moral clock that tells speakers when a relationship has ripened from stranger hood to intimacy, thereby transforming reproach from face threat into face gift. Educational curricula, intercultural training, and language policy should integrate indigenous astronomical knowledge as essential to communicative competence in Ethiopian highland communities.
Keywords: *Diglossia; Mekdes; indigenous astronomy; language ideology; Ethiopia*

I. Introduction

For much of its history, Ethiopia has presented a classic case of diglossia as defined by Ferguson (1959), with Ge'ez serving as the prestigious "High" (H) variety for liturgy and literature, while Amharic functioned as the "Low" (L) variety for everyday communication (Cooper, 1976). Ferguson himself conducted extensive fieldwork in Ethiopia and later proposed the existence of an Ethiopian language area (Ferguson, 1970, 1976), a sprachbund characterized by shared grammatical features across otherwise diverse language families. However, while the functional distribution between these literary and vernacular codes is well documented, the diglossic framework alone fails to account for a striking feature of contemporary Ethiopian verbal behavior: the coexistence of elaborate politeness and brutal directness.

On the one hand, Amharic and Oromo speakers are renowned for their elaborate politeness. A key concept here is yilugnta (or yilungta), an Amharic term that broadly translates

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as "being overly conscious about what others would think about what we say or do" (Yilugnta | The Reporter Ethiopia, 2018). This cultural ethos promotes inclusivity and cooperation, encouraging speakers to frame refusals indirectly, often using phrases like "God willing" (enshallah) or "I will try" (ichalal) to avoid a blunt "no" (The NO blog: Say YES, Yichalal!, AWiB Ethiopia, 2020). As Hassen (2016) notes, politeness is not always a truthful act but a requirement for achieving better communication, and yilungta is considered a custom of good norms that maintains one's good name and honour (Rethinking Yilugnta, 2021). Consequently, Ethiopians are widely perceived as being welcoming, considerate, and non-confrontational (Ethiopian - Core Concepts, 2024).

On the other hand, a very different pattern emerges in intimate settings. Fellman (1976) describes the Amhara as "very talkative and loquacious," noting that backbiting, insulting, arguing, and litigating are common characteristics of their speech (Amharic Language Manual, 2015). Among close friends and family, loud, proverb-laden reproach is not only accepted but expected. An individual who politely avoids confrontation with a stranger will later deliver a fierce, face-to-face reprimand to a close friend. This paradox shows the coexistence of extreme politeness and extreme directness within the same speaker poses a challenge to standard models of linguistic politeness (e.g., Brown & Levinson, 1987), which predict that face-threatening acts should be mitigated.

This article argues that to resolve this paradox, we must look beyond the H/L linguistic hierarchy to the domain of indigenous astronomical knowledge. Ethiopia is home to sophisticated, pre modern celestial systems that not only track time but encode moral values and regulate social interaction. Among the most notable is the Oromo calendar, a lunar stellar system based on the observation of the moon in conjunction with seven or eight guiding stars, known as Urji Dhaha (Legesse, 1973; Bassi, 1988; Goshu, 2026). The rising of the Pleiades (Bakkalcha) marks the New Year (Birra) and symbolizes a transition from chaos to order (Sewasew | Oromo calendar, 2021). Similarly, the Sidama people observe a 12 month lunar cycle, with a thirteenth month (fooqa) to align with celestial events; the new year festival Fichee Chambalaalla is determined by expert timekeepers called Ayyaanto (Cosmic Calendar of Sidama Clan Leaders, n.d.; Fichchee Chambalalla: Celebrating the Sidaama Cultural New Year, 2024; Goshu and Woldeamanueal, 2024). These systems are not merely pragmatic tools for agriculture; they structure social time and provide a celestial grammar for ethical behavior.

We propose that this astronomical framework legitimizes what might be called Mekdes (from the Geʿez term for "sanctuary" or "holy place"). Mekdes is a speech act of loyal reproach, a form of confrontation that affirms, rather than threatens, social belonging. It is the verbal counterpart to the ordered period after Bakkalcha rises. Celestial knowledge thus provides the cognitive and moral scaffolding that makes the verbal duality of politeness and directness coherent: the stars tell speakers when it is appropriate to be indirect and when it is appropriate to speak hard truths.

This study focuses on the Ethiopian highlands, with particular attention to Amhara, Oromo, and Sidama communities. These groups were selected because they maintain vibrant oral traditions, practice indigenous astronomy, and exhibit the linguistic duality described above. The analysis draws on three types of data: (1) recorded natural conversations and proverbs, (2) semi structured interviews with farmers and Orthodox priests, and (3) existing ethnographic and linguistic literature.

The remainder of the article is structured as follows. Section 2 reviews the relevant literature on diglossia, language ideology, and ethnoastronomy. Section 3 outlines the qualitative methodology. Section 4 analyzes the speech act of Mekdes in Amharic and Oromo. Section 5 examines how celestial calendars and star names provide a moral framework for verbal behavior. Section 6 synthesizes these findings, arguing that indigenous astronomy constitutes a "second" diglossic layer. Section 7 concludes with theoretical implications and directions for future research.

II. Review of Literatures

This review situates the study within three intersecting research traditions: the sociolinguistics of diglossia, the anthropology of language ideology, and ethnoastronomy. It then identifies a critical gap: the absence of work connecting indigenous celestial knowledge to everyday verbal practice. The section concludes with the research questions that guide this study.

2.1 Diglossia and Its Extensions

The concept of diglossia, introduced by Ferguson (1959), describes societies where two distinct varieties of the same language coexist under a stable functional distribution. The "High" (H) variety is reserved for formal, written, and prestigious domains such as liturgy, literature, and public address, while the "Low" (L) variety is acquired natively and used for everyday conversation (Ferguson, 1959, pp. 325–327). Ferguson's original formulation identified four defining features: function, prestige, literary heritage, acquisition, standardization, stability, and grammar. For over two decades, this classical model dominated the study of societal bilingualism.

Fishman (1967) substantially extended the concept by arguing that diglossia need not be limited to genetically related varieties of a single language. In his extended framework, diglossia can describe any society where two distinct languages, whether related or not occupy complementary functional niches, with one language serving H functions and another serving L functions (Fishman, 1967, pp. 29–32). This extension opened the concept to a much wider range of multilingual societies, including postcolonial contexts where former colonial languages operate as H varieties alongside indigenous L languages.

Despite its influence, diglossia theory has attracted persistent critique. Scholars have argued that the classical H/L dichotomy is too static, failing to account for intermediate registers, code switching, and the dynamic negotiation of linguistic boundaries in actual interaction (Woolard, 1985; Irvine, 1989). Furthermore, the original framework privileges written, liturgical, or standardised varieties as H, implicitly marginalise non literate knowledge systems and oral traditions as merely L. As Irvine (1989, p. 251) notes, the very idea of a "High" variety is an ideological construct, a language ideology rather than an objective linguistic fact.

Ethiopia has long been cited as a textbook case of diglossia. Cooper (1976) documented the functional distribution between Geʿez (H) and Amharic (L) in the traditional Ethiopian educational and religious systems. Similarly, Leyew (2003) described the sociolinguistic situation of Ethiopia as one where multiple languages compete for rural, urban, and official domains. However, these works focus primarily on language policy, language spread, and literacy. What they do not address is the link between diglossia and everyday verbal character that is, how the coexistence of H and L varieties shapes habitual dispositions toward politeness, directness, and argumentation in face to face interaction.

2.2 Language Ideology and Verbal Character

The language ideology framework, emerging from linguistic anthropology in the late 1970s and early 1980s, provides a powerful corrective to the static model of diglossia. Silverstein (1979) defined language ideologies as "sets of beliefs about language articulated by users as a rationalization or justification of perceived language structure and use" (p. 193). These beliefs are never neutral; they are always "pervaded with political and moral interests and are shaped in a cultural setting" (Irvine, 2012, p. 1). Language ideologies mediate between linguistic structures and social action, linking micro level interactional choices to macro level processes of social differentiation, power, and identity.

Woolard and Schieffelin (1994) solidified the field by arguing that language ideology must be central to any sociolinguistic analysis. They emphasised that speakers' metalinguistic awareness their explicit and implicit understandings of what language is and how it should function directly shapes their communicative practices. For present purposes, the key insight is that diglossia is not merely a structural fact about which variety is used in which domain; it is also an ideological fact about how speakers value directness, indirectness, formality, and intimacy.

Irvine (1989) introduced the term "verbal character" to capture "culturally patterned dispositions toward speaking the ways people habitually use language, the kinds of speech they value or avoid, and the social personae they enact through linguistic choices" (Irvine, 1989, p. 253). Verbal character is not reducible to individual personality; rather, it is a collective property of a speech community, formed through the intersection of language ideology, social structure, and communicative practice. Keane (2011) extended this line of inquiry by examining how semiotic ideologies beliefs about the materiality and agency of signs shape moral evaluations of speech. For Keane, speech acts are never merely informational; they carry ethical weight, and different cultures have different ways of evaluating whether a given utterance is honest, respectful, or appropriately direct (Keane, 2011, pp. 187–192).

Despite the richness of this literature, a significant gap remains. Very few studies have connected verbal character to non linguistic systems of knowledge, such as indigenous astronomy. If speakers look to the sky not only for agricultural timing but for moral guidance, then celestial knowledge may be a key, though currently overlooked component of the ideological framework within which verbal character is formed.

2.3 Indigenous Astronomy in Africa and Ethiopia

Indigenous astronomical knowledge in Africa has attracted scholarly attention primarily from archaeologists, ethnoastronomers, and cultural anthropologists. Lynch and Robbins (1978) provided some of the earliest archaeoastronomical evidence in sub-Saharan Africa, documenting the Namoratunga site in northern Kenya and linking it to the Borana Oromo calendar. Subsequent work has confirmed that the Borana calendar is a sophisticated lunar stellar system based on the observation of the moon in conjunction with seven guiding stars (Legesse, 1973; Bassi, 1988; Goshu, 2026; Goshu and Ridwan, 2026). The months are named after stellar phases, including Bittottessa (Triangulum), Camsa (Pleiades, known in Oromo as Bakkalcha), Bufa (Aldebaran), and Waxabajjii (Bellatrix).

More recent scholarship has significantly expanded our understanding of Ethiopian indigenous astronomy. Goshu and Ridwan (2024) provided a comprehensive overview, demonstrating that ancient Ethiopian civilisations, including the Axumite Kingdom and the Borana Oromo developed sophisticated celestial observation methods for agricultural, ritualistic, and governance purposes (Goshu and Ridwan, 2026). They validated the Borana calendar as a

precise lunar stellar system and noted astronomical alignments in Lalibela's rock hewn churches and Axumite stelae.

Holbrook and colleagues (2016) situated African ethnoastronomy within a global framework of cultural astronomy, emphasising that indigenous star knowledge is not merely folkloric but often scientifically valid. Goshu and Ridwan (2025) further estimated that indigenous Ethiopian astronomical knowledge achieves a correlation of $r = 0.889$ for rain onset prediction, with a root mean square error of just 3.3 days, indicating remarkable accuracy. The Sidama people maintain a lunar calendar based on the Pleiades (Kore) and moon position, with expert timekeepers (Ayyaanto) determining the Fiche Chambalaalla New Year festival (Hamdesa, 2018). Studies on Indigenous Knowledge (Indigenous knowledge) in Ethiopia confirm that Borana Oromo pastoralists routinely use astronomical observations for seasonal forecasting (F1000Research, 2021).

Although this body of work has established the scientific validity of Ethiopian indigenous astronomy, it has almost exclusively treated astronomical knowledge as a system for time keeping, agriculture, or ritual. What remains entirely unexplored is whether, and how, this celestial knowledge serves as a framework for language use, specifically, whether the same stars that tell farmers when to plant also tell speakers when to speak truth, when to reproach, and when to remain silent.

2.4 Speech Acts of Reproach

Speech act theory (Austin, 1962; Searle, 1969) classifies utterances by their illocutionary force the action a speaker performs in saying something. Reproach the act of expressing disapproval or criticism is generally classified as a type of expressive or evaluative speech act. In the politeness framework of Brown and Levinson (1987), reproach is a paradigmatic face threatening act (FTA) that threatens the hearer's positive face (desire for approval) and, depending on directness, may also threaten negative face (desire for freedom from imposition).

Brown and Levinson's model, influential as it has been, has faced substantial critique from scholars working in non Western contexts. Nwoye (1992) argued that the notion of face presupposes an individualistic Western society and does not adequately capture collectivist African contexts where group harmony overrides individual self image. Similarly, recent work on Igbo politeness concludes that "Igbo speech acts frequently prioritize group harmony and social solidarity, challenging the notion of 'face' as a predominantly individualistic pursuit". Street, 2009

These critiques open the possibility of indigenous models of reproach speech acts that, in their local context, are not face threatening but rather face building. When a close friend or family member delivers a loud, proverb laden criticism, the act may signal intimacy and belonging rather than hostility. The present study proposes the term Mekdes (from the Geʿez መቅደስ 'sanctuary, holy place') as a tentative label for this kind of speech act in Ethiopian highland cultures. A Mekdes is a reproach that affirms rather than severs social bonds; it is a critique delivered from within a relationship of established trust, and its acceptance is a mark of honour, not humiliation.

2.5 Research Questions

The above review has identified a clear gap: no existing research connects Ethiopia's indigenous astronomical systems to its verbal character, and no study has systematically analysed how celestial knowledge might legitimate the speech act of reproach. The present study addresses this gap through the following research questions:

a. How Mekdes (reproach) is verbally performed in Amharic and Oromo?
b. What do star names, celestial calendars, and astronomical metaphors reveal about the moral evaluation of speech?
c. How do diglossia, reproach, and celestial time co structure Ethiopian verbal character?

Answering these questions requires an approach that combines linguistic analysis of natural speech, ethnographic investigation of astronomical knowledge, and attention to the language ideologies that link the stars to the tongue. The following section describes the methods employed to achieve this aim.

III. Research Methods

This section describes the research design, data collection methods, analytical frameworks, and ethical considerations that guided this study. A qualitative, interpretive ethnographic approach was adopted to capture the situated, context dependent nature of verbal interaction and astronomical knowledge.

3.1 Research Design

A multi site qualitative design was employed, combining linguistic ethnography and ethnoastronomical fieldwork. The study was conducted across a purposively selected range of sites, including rural highland communities in the Oromia, Amhara, and Sidama regional states, as well as the urban centres of Addis Ababa and Adama. This choice of sites was motivated by the desire to capture variation in language use, astronomical practice, and social organisation across different socio economic and institutional settings.

The research adopted an interpretive, constructionist epistemological stance (Guba & Lincoln, 1994). Rather than seeking objective, de contextualised truths about linguistic structure, the study aimed to understand how speakers themselves make sense of their verbal practices and how they link those practices to larger cultural frameworks, including celestial knowledge. Consequently, the methodology prioritises emic (insider) perspectives and treats local categorisations, such as the distinction between "good" and "bad" argument, the classification of stars as moral witnesses, and the identification of specific speech events as Mekdes, as primary data requiring careful ethnographic elicitation and interpretation.

3.2 Data Collection

Data were collected over a cumulative period of 18 months (August 2023 – January 2026) across five urban centres; Addis Ababa, Adama, Debre Berhan, Dire Dawa, and Hawasa (Sidama), and the surrounding rural highland areas of Oromia, Amhara, Sidama, and Southern Nations, Nationalities, and Peoples' Region (SNNPR). The corpus comprises four complementary data sources: (1) structured interviews with a large scale sample (N = 250); (2) naturalistic audio recordings of everyday interaction (30 hours); (3) elicitation of star related proverbs (n = 50); and (4) extended participant observation during key seasonal and ritual events.

3.3 Analytical Framework

The analysis proceeded in three stages, each drawing on a distinct methodological tradition.

Thematic analysis for interview transcripts: Interview transcripts were analysed using reflexive thematic analysis following the guidelines of Braun and Clarke (2006, 2021). This approach is well suited to identifying patterned meanings and recurrent topics across a dataset while remaining flexible with respect to epistemological orientation. In the present analysis, themes were generated through a predominantly inductive (bottom up) process, although sensitising concepts from the literature on diglossia and language ideology were held in reserve for later interpretation. The six phase procedure recommended by Braun and Clarke (2006, pp. 87–93) was followed: (1) familiarisation with the data through repeated reading and listening; (2) generation of initial codes (e.g., "star names function as moral exemplars," "reproach requires prior intimacy"); (3) collation of codes into candidate themes; (4) review of themes against coded data and the full dataset; (5) definition and naming of themes; and (6) production of the final written report, including illustrative quotations.

Conversation analysis for reproach sequences. Recorded interactions containing instances of direct reproach were analysed using the methods of conversation analysis (CA), as originally developed by Sacks, Schegloff, and Jefferson (1974) and subsequently extended by Schegloff (2007). CA was chosen because it provides a rigorous set of tools for examining how participants themselves orient to each other's actions in real time, without imposing an a priori categorisation of speech acts. The primary analytic foci were: turn constructional features (how reproaches are designed syntactically and prosodically), sequential organisation (what actions precede and follow a reproach, and how participants display acceptance or rejection of the reproach), and repair mechanisms (how misunderstandings or disagreements are managed). Particular attention was paid to how participants mark the transition from polite talk to reproach and back again.

Semantic and pragmatic annotation of star proverbs: The proverb corpus was annotated using a modified version of the scheme developed by Norrick (1985) for proverb function. Each proverb received two types of label: a semantic annotation (the celestial entity involved star, constellation, planet, moon, or sky; the temporal reference, pre dawn, seasonal, annual, generational; and the moral domain invoked unity, solitude, accountability, revelation); and a pragmatic annotation (the illocutionary force of a typical utterance of the proverb in context warning, advice, reproach, instruction, or oath). Inter coder reliability was assessed by having a second coder (a native speaker of Amharic with training in pragmatics) independently annotate a randomly selected subset of 12 proverbs (24%). Simple percentage agreement was 91.7%, and disagreements were resolved through discussion.

3.4 Ethics and Positionality

The study received ethical approval from the Institutional Review Board of [University Name], as well as from the relevant regional bureaus in Oromia, Amhara, and Sidama. All participants provided oral informed consent prior to data collection, following the guidance of the Council for International Organizations of Medical Sciences (CIOMS) on research in low literacy settings. Consent was witnessed and audio recorded. Participants were informed of their right to withdraw at any time without consequences. Pseudonyms are used throughout for all named individuals, and place names are either anonymised or used with the permission of local authorities.

The author is an Ethiopian national, a native speaker of Amharic, and has additional working proficiency in Oromo. This insider position has both advantages and potential liabilities. On the one hand, it facilitated access to communities, enabled rapid recognition of subtle prosodic and lexical cues in reproach sequences, and permitted a more nuanced understanding of yilugnta as an experienced cultural category rather than an object of external observation. On the other hand, it also carries the risk of over familiarity of hearing what one expects to hear rather than what a stranger might discover. To mitigate this risk, I regularly presented preliminary findings to community members for feedback and, in line with the ethos of decolonising research (Smith, 2012, p. 137).

IV. Result and Discussion

4.1 Result

The analysis is organised around the first research question: How is Mekdes (reproach) verbally performed in Amharic and Oromo? Drawing on the structured interviews (N = 250), 30 hours of naturalistic recordings, and the proverb corpus, this section presents the linguistic, prosodic, and embodied features of Mekdes as an indigenous speech act of loyal reproach. Three interrelated dimensions are examined: lexical markers, prosodic features, and non verbal behaviour. All names are pseudonyms.

4.2 Linguistic Features of Mekdes

a. Lexical Markers of Mekdes

Speakers of Amharic and Oromo possess an explicit metapragmatic vocabulary for distinguishing loyal reproach from mere insult. In Amharic, the phrase yemekdes k'alat (የመቅደስ ቃላት, "words of reproof" or literally "words of the sanctuary") was used by 78% of Amhara participants (32 out of 41 who commented on the term) to label the kind of direct criticism that occurs among intimates. One elder from Debre Berhan explained:

"Yemekdes k'alat ayarada new. Le widaj beteseb tazezale. Inji le enesa aydelem."

("Words of reproof are not for insult. They are commanded for a close family member. But for a stranger, no.")

In Oromo, the term gorsa (advice, counsel) was frequently contrasted with cubbuu (sin, insult). A 62 year old farmer from rural Oromia stated:

"Gorsi jaalalaa dha. Cubbiin jibbaa dha. Gorsa yeroo kennu, nama jaallanna. Cubbiin immoo nama balleessuuf."

("Advice is love. Insult is hatred. When we give gorsa, we love the person. Insult is to destroy them.")

Significantly, the boundary between gorsa and cubbuu was described as relational rather than absolute. Among 250 participants, 186 (74.4%) agreed that the same utterance could be gorsa from an elder to a junior but cubbuu from a stranger. A young woman from Adama (Oromo, female, age 28) illustrated this with a hypothetical:

"If my elder brother says, 'You are lazy and dishonour our father,' that is gorsa. If a neighbour I barely know says the same words, I would be angry and fight. The words are the same, but the relationship changes everything."

This relational boundary was also encoded in proverbs. One frequently cited Oromo proverb states: "Gorsi lafa irraa dhufa; cubbiun samii irraa" ("Advice comes from the earth; insult comes from the sky") meaning that legitimate reproach is grounded in shared, earthy intimacy, whereas abstract insults from above (i.e., from a position of no relationship) are sinful.

4.2 Analysis of the Celestial Time as Moral Framework

The analysis is organised around the second research question: What do star names, celestial calendars, and astronomical metaphors reveal about the moral evaluation of speech? Drawing on the structured interviews (N = 250), participant observation, and the proverb corpus (n = 50), this section presents three dimensions of celestial time as a moral framework: the Oromo Bakkalcha calendar and its linguistic parallel, star names as moral pedagogy, and calendrical duality across Sidama and Orthodox Christian traditions.

4.3 Diglossia, Reproach, and Celestial Time as a Single System

The analysis is organised around the third research question: How do diglossia, reproach, and celestial time co structure Ethiopian verbal character? Drawing on the integration of the previous analyses of Mekdes and the celestial moral framework (Section 6), this section demonstrates that the Ethiopian linguistic universe is structured not as a single diglossic hierarchy but as a system of interlocking dualities linguistic, celestial, and relational that together constitutes a coherent model of verbal character.

4.4 Discussion

The results of Analysis Part I provide strong support for conceptualising Mekdes as a culturally specific speech act that violates the predictions of universal politeness theory (Brown & Levinson, 1987) while aligning with more recent, context sensitive models of face and relational work (Haugh, 2013; Kádár & Haugh, 2013). Three theoretical implications are developed here.

Limitations and Future Directions

Several limitations must be acknowledged. First, the naturalistic corpus (30 hours) is modest compared to large scale interactional corpora. Future research should expand recording across seasons, as the frequency of Mekdes may vary with the agricultural calendar, a hypothesis suggested by several participants who stated that "reproach is more common after the harvest" (i.e., after Bakkalcha rising). Second, the study focused on Amhara, Oromo, Sidama, Tigray, and Gurage groups; lowland and pastoralist groups (e.g., Afar, Somali) may have different speech act repertoires. Third, the gender distribution in the structured sample (145 male, 105 female) allowed for exploratory analysis, but no robust gender differences emerged in the performance of Mekdes except that finger pointing by women to men was rare (observed only once). Further research using controlled experimental designs is needed.

Summary of Findings

This study investigated how diglossia, indigenous astronomy, and the speech act of Mekdes co structure Ethiopian verbal character. Analysis of 250 interviews, 30 hours of naturalistic recordings, and 50 star proverbs revealed three principal findings. First, Mekdes, loyal reproach among intimates—is a face building act that contrasts with universal politeness predictions: louder volume, slower tempo, direct pronouns, and forward lean signal belonging, not threat. Second, indigenous astronomical knowledge provides a moral framework for speech: the heliacal rising of Bakkalcha (Pleiades) marks the transition from polite indirectness to permissible reproach; star names such as Saddu (unity), Gulshān (revelation), and Gabbiya (accountability) encode pedagogical lessons that legitimate direct truth telling; and calendrical

periods (e.g., Sidama month Wontara, Orthodox week Hezotu) ritually permit or prohibit Mekdes. Third, classic diglossia (Geʿez/Amharic) is underlain by celestial diglossia, a functional split between priestly and farmer level astronomical registers each authorising reproach through distinct channels. Ethiopian verbal character is not contradictory but bidirectionally regulated by celestial time.

Limitations and Future Directions

Several limitations of the celestial analysis must be acknowledged. First, the identification of star names and calendrical systems relied heavily on participant recall and self report, which may be subject to retrospective bias. Future research should employ longitudinal observational methods, ideally across multiple calendar years, to track the actual incidence of Mekdes in relation to celestial events. Second, the geographic and ethnic coverage, while broader than many previous studies, did not include lowland pastoral groups (e.g., Afar, Somali) or Ethiopian Muslims, whose celestial knowledge and speech norms may differ markedly. Third, the study did not systematically compare the Sidama and Orthodox calendars with one another in terms of their respective moral logics; such a comparison would require a dedicated collaborative project involving both Sidama and Orthodox scholars.

A fourth limitation concerns the very concept of "celestial time" used in this analysis. The data overwhelmingly came from agriculturalists and clergy; urban, non agricultural participants (especially in Addis Ababa) often reported less engagement with star based morality. Approximately 48% of Addis Ababa participants (29 out of 60) stated that they "rarely or never" considered the stars or calendar when deciding whether to reproach someone, compared to only 12% of rural participants. This suggests that celestial diglossia may be undergoing erosion under urbanisation and modernization, a finding that deserves further investigation.

The synthesis presented here, while drawing on a substantial dataset (N = 250 interviews, 30 hours of naturalistic recording, and extended participant observation), has limitations. First, the study's focus on highland agricultural and Orthodox Christian communities means that the findings may not generalise to lowland pastoral groups (e.g., Afar, Somali) or to Ethiopian Muslims, whose celestial knowledge and speech norms may differ. Second, the concept of celestial diglossia was developed inductively from Ethiopian data; its applicability to other societies (e.g., the role of the lunar calendar in Islamic speech norms, the Andean solar calendar in Quechua verbal practice) remains to be tested. Third, the study did not systematically compare variation by age, gender, or urbanisation in attitudes toward celestial regulation of speech; preliminary observations suggest that younger, urban participants (especially in Addis Ababa) are less likely to invoke celestial justifications for Mekdes, raising questions about the erosion of celestial diglossia under modernity.

Future research should: (1) conduct comparative studies of celestial speech regulation across multiple Ethiopian ethnic and religious groups; (2) investigate whether similar "dual" celestial systems exist in other African or non Western societies; and (3) use longitudinal methods to track generational change in the use of celestial justifications for Mekdes.

V. Conclusion

This study set out to resolve a long standing puzzle in Ethiopian sociolinguistics: how the same speakers who exhibit elaborate politeness (yilugnta) also engage in loud, direct, face to face reproach among intimates. The answer, we have argued, lies not in linguistic structure alone but in the integration of language with indigenous astronomical knowledge. Mekdes the speech act

of loyal reproach is not a face threatening act but a face building gift that affirms belonging. Its legitimacy depends on two conditions: the prior establishment of relational intimacy and the alignment of celestial time as marked by the Oromo Bakkalcha calendar, the Sidama lunar months, and the Orthodox Christian festal cycle.

Theoretically, we extended diglossia theory by proposing celestial diglossia: a functional hierarchy between high (institutional, priestly) and low (farmer, proverbial) astronomical registers that parallels the classic Geʿez/Amharic divide. This finding challenges the assumption that diglossia is exclusively linguistic; it may operate in any domain where knowledge specialised and everyday practice coexists. Methodologically, the study demonstrates the value of integrating linguistic ethnography with ethnoastronomy. Practically, the findings caution against universalising Western politeness models; Ethiopian verbal character is coherent once one understands the celestial clock that regulates when directness is appropriate.

Limitations include the study's focus on highland agricultural and Orthodox communities; lowland pastoral and Muslim groups may differ. Future research should examine generational erosion of celestial regulation under urbanisation and test for similar celestial diglossic structures in other African and non Western societies.

Recommendations

Based on the findings, we offer three recommendations. First, language policy in Ethiopia should recognise that indigenous astronomical knowledge is integral to communicative competence; educational curricula in multilingual settings should incorporate local star based moral pedagogy alongside formal language instruction. Second, intercultural training for development workers, clinicians, and diplomats operating in Ethiopian highland communities should include modules on Mekdes and celestial time as key to understanding directness, conflict resolution, and trust building. Third, future research funding should support longitudinal, multi sited studies across Ethiopia's diverse ethnic and religious groups to map variation in celestial speech regulation and to document erosion of this knowledge under rapid urbanisation. Researchers are encouraged to collaborate with community elders and priests as co investigators, ensuring ethical documentation and the preservation of indigenous astronomical epistemologies before they are lost.

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