



**JOURNAL OF DYNAMICS
AND CONTROL**
VOLUME 8 ISSUE 9

CONTRASTIVE ANALYSIS WITH QDA
MINER LITE: A QUALITATIVE STUDY
OF BALTI AND ENGLISH SYNTACTIC
PROCESS

Muhammad Mustafa, Professor Dr.
Lubna Ali Mohammed, Sadia Ayub
Lincoln University College, Malaysia

CONTRASTIVE ANALYSIS WITH QDA MINER LITE: A QUALITATIVE STUDY OF BALTI AND ENGLISH SYNTACTIC PROCESS

Muhammad Mustafa*, Professor Dr. Lubna Ali Mohammed, Sadia Ayub

Lincoln University College, Malaysia

*Corresponding Authors: mmustafa@lincoln.edu.my

ABSTRACT: *This qualitative study aims to bring in the application of a data analysis tool named QDA Miner software (version 3.1, 2023) for the contrastive analysis of Balti and English syntactic processes. CA, Contrastive Analysis is an approach to appraise the similarities and dissimilarities of two or more languages and this approach has been applied to assess the syntactic process of Balti and English limited to the Present tense, and its transformation processes accordingly. The data was collected from the selected grammar books “Balti Grammar by Lobsang and Essential Grammar (English) by Murphy” for the Contrastive Analysis and later on, was analyzed via QDA Miner Lite (Version 3.1, 2023), a qualitative data analysis software systematically. The current study unlocks the linguistic gap of the Balti word-order in disparity to English. It possesses significant value for future linguistics and education researchers as it has demonstrated the QDA Miner Lite (version 3.1) as a data analysis tool used in CA. The findings exemplified that Balti syntax functions with SOV (Subject plus Object plus Verb) course in contrast to English- SVO (Subject plus Verb plus Object) for sentence construction.*

KEYWORDS: *QDA Miner, Contrastive Analysis, Qualitative Data Analysis, Balti Syntactic Process*

Introduction

The notion of comparative or contrastive analysis (CAH) (Lado, 1957) functions as a linguistic research approach that aims at comparing along with contrasting two or more phenomena and their impact on the learning procedure of L2. The Balti language is widely spoken in many regions across the globe, but the linguistic domain of Morphosyntax, particularly the syntactic process, is dissimilar to English in terms of its sentence formation process. Balti people are mostly found in the north of Pakistan and speak Balti as L1, and this language is considered a branch of the Sino-Tibetan family, with picky Tibetan lettering and Arabic script (Bano, Mir, & Issa, 2024, p. 183). Balti, a language, is spoken at a minor level in Nepal, China, and Bhutan and, at a large scale, in Baltistan, north of Pakistan, and in Ladakh, Chhulunkhha, India. Balti is used for

communication purposes across regions Ladakh-India, Baltistan-Pakistan, Sherpa-Nepal, Qinghai, Sichwan, Shangai, and Yunnan-China (Issa, et al., 2022). English is considered the lingua franca, language of trade, language of medicine, language of technology, and international language, and it has a significant background and features regarding its linguistic features. English is the most spoken language in the world, and it is considered the most important language to achieve all types of personal or professional goals. Contrastive analysis is a linguistic approach used to compare two or more phenomena, like languages or others. This study aimed at identifying the similarities and differences between the syntactic processes of Balti and English, and the compared domains were the three tenses and their categories accordingly. The contrastive hypothesis proposed by Fries and Lado in the nineteenth century is considered one of the important domains of SLA (second language acquisition) and applied linguistics (Khansir et al., 2021, p. 36). It is mentioned that CA can be applied to assess language transfer errors where required. Balti, in terms of its usage, possesses dissimilar rules to English in the syntactic process, so the study was aimed at thrashing out the dissimilarities of both syntactic processes.

QDA Miner Lite is considered an enormous tool applied in qualitative study for data analysis systematically, and in the year 2023, 170 journals, 20 monographs, and 180 doctoral and graduate dissertations were published with data analyses by it (Weisser, 2023). In the current study, the researcher has applied Quirkos as a data analysis tool to thrash out the similarities and dissimilarities in the syntactic processes of the targeted linguistic domains of syntax.

The Balti language and Baltis in India and some other regions are facing a crucial treat regarding their real existence; major words have vanished and been replaced by loanwords. Many of others, Balti language is one that is undergoing fast eroding (Bano, et al., 2024). Still, it is

important to find the gap to keep them from extinction. One of the major domains of linguistics is called syntax, and it is the scientific study of syntactic processes or sentence formation processes in any language. Balti possesses its own particular rules and steps for sentence formation processes (syntactic process). The gap in contrastive analysis between Balti and English is concerned with the syntactic process, which is of great importance to keeping Balti from extinction.

The research objective of the current study is to thrash out the similarities and dissimilarities of the sentence formation process (syntactic process) of Balti tenses in contrast to English. To get through the process systematically, the researcher selected two grammar books in both Balti and English, one of which was written by Lobsang and Murphy. For the purpose of contrastive analysis, the rules and examples were taken and analyzed with the help of Quirkos until data saturation. To answer the research question of the paper, the proposed software would analyze the contrasting domains and provide the major dissimilar syntactic processes and their outcomes systematically.

Background Review

Balti people are mostly found in the north of Pakistan and speak Balti as L1, and this language is considered a branch of the Sino-Tibetan family, with picky Tibetan lettering and Arabic script (Bano, Mir, & Issa, 2024, p. 183). Balti, a language, is spoken at a minor level in Nepal, China, and Bhutan and, at a large scale, in Baltistan, north of Pakistan, and in Ladakh, Chhulunkha, India. Balti is used for communication purposes across regions Ladakh-India, Baltistan-Pakistan, Sherpa-Nepal, Qinghai, Sichuan, Shangai, and Yunnan-China (Maryam et al., 2024). Baltistan is famous among Baltis, as 425,000 Balti native speakers are found there (Costa, 2020). Balti is widely spoken in seven valleys in the north of Pakistan named Skardu, Roundu,

Khaplu, Shiger, Kharmang, Chhorbat, and Skardu Purki, and it has been noticed that all dialects are similar to others rather than the dialect spoken by Skardu-Purki (Kaplan, 1992, p. 1). This Sino-Tibetan language possesses its own morphosyntactic process, which may be contrasted to the other languages across the globe. Contrastive Analysis (CA), sometime Contrastive Analysis Hypothesis (CAH) is widely impacted in SLA (Second Language Acquisition) research, and it is mostly applied by linguists and language instructors for linguistic research concerned with linguistics across cultures (Rickaby, 2023). CA can be applied to thrash out the dissimilarities and similarities of linguistic features among languages, and it is often applied to predict the errors done by the L2 learners; consequently, the educators can predict the errors of the L2 learners and offer solutions to them accordingly (Wollacott, 2023). Assessment of the natural language through comparative analysis is of great worth and interest as the interfaces are interlinked structured figures of knowledge, and the formation of natural language text from the graph figured is very important for information seeking (Schneider et al., 2024). Contrastive analysis can be defined as systematic and synchronic comparison theoretically grounded in two or more languages in terms of small or large level, and in the earlier ages it was applied for translation and teaching (Mair, 2023). The contrastive hypothesis proposed by Fries and Lado in the nineteenth century is considered one of the important domains of SLA (second language acquisition) and applied linguistics (Khansir et al., 2021, p. 36). Contrastive learning is considered a dominant approach to training the learning of the skill or statement embeddings (Zhang, Lan, & He, 2024).

QDA Miner is considered a systematic device applied in qualitative research for information analysis systematically, and in the year 2023, 170 journals, 20 monographs, and 180 doctoral and graduate dissertations were published with data analyses by it (Weisser, 2023). For the qualitative data analysis to find the themes and other challenges, Miner Lite has made some

improvements to QDA Miner for codes, coding, thematic analysis, and much more (Turner, 2023). In case studies of Sage Research Methods, the famous researchers applied Quirkos for their data analysis and recommended it for other researchers as well. In the current study, the researcher has applied the QDA miner data analysis tool to thrash out the similarities and dissimilarities in the syntactic processes of the targeted linguistic domains of syntax so that the challenges of the L2 learners could be resolved. The most general word orders of the languages across the globe are SOV, SVO, VSO, and VOS (Dryer, 2005, p. 331).

Methodological Approach

The Balti language is generally spoken in various regions across the globe, but the linguistic domain of Morphosyntax, particularly the syntactic process, is dissimilar to English in terms of its sentence formation process. Balti people are mostly found in the north of Pakistan and speak Balti as L1, and this language is considered a branch of the Sino-Tibetan family, with picky Tibetan lettering and Arabic script (Bano, Mir, & Issa, 2024, p. 183). Balti possesses the sentence formation rule of SOV in contrast to English (SVO) rules. So, the current study aimed at comparing the syntactic process of the Balti language in contrast to English so that the challenges and errors faced by Balti learners could be identified accordingly.

This study is qualitative, as it aims to highlight the in-depth understanding of the syntactic process of Balti as an L2 and the impact of Balti (L1) on L2 learning processes. Thematic analysis of texts in both Balti and English was compared in terms of syntactic processes, and QDA Miner software (Version 3.1, 2023) was applied for data analysis systematically. QDA Miner supports Unicode entirely and possesses the capacity to store files in qlt and qdq format extensions with versions 1.x and 2.x (Provalis, 2023). Thematic analysis supports the researchers in exploring

patterns and links within the collected data. By thoroughly organizing and categorizing information, researchers can discern recurring themes so as to possibly offer a deeper perception of the phenomena under investigation (OpenAI, 2024). To explore the themes, follow the steps of ‘familiarization of data, generating the initial codes, exploring the themes, reviewing the explored themes, defining and naming the explored themes, presenting the themes, and providing feedback and review writing. In the review and feedback, the researcher has elaborated on the major similarities and dissimilarities proposed by Quirkos accordingly. The three tenses (Chhatkhhi Rgalbong)—present, past, and future—are named Dose Rgalbong, Gopa Gralphong, and Jukla Rgalbong accordingly. The selected tense is just present tense, which is called Chhatkhhi Rgalbong in Balti, and the sentence formation process and its transformation process have been analyzed contrastively.

Balti: Nгна zan zed. SOV

English: I take food. SVO

Application of QDA Miner Software

For the contrastive analysis of syntactic structures of both languages QDA Miner Software was applied for its robust qualitative data analyses capacity and capability. Firstly, data was collected from the concerned books mentioned above for Balti and English syntactic process and imported to the QDA software while coding each sentence according to various syntactic features, such as word order, clause structure, and syntactic markers. QDA Miner Lite's text retrieval and coding functions facilitated the recognition and evaluation of recurring patterns within two languages. By applying the software’s tagging and annotation tools, the analysis highlighted

distinct syntactic phenomena in English and Balti, enabling a detailed examination of differences and similarities. Additionally, visualization and other characteristics of QDA Miner Lite, such as code frequency charts and cluster analyses, were employed to demonstrate the occurrence and distribution of detailed syntactic constructions. This systematic move guaranteed inclusive and structured contrastive analyses, enlightening significant insights into the syntactic features of both Balti and English language.

Data and Analysis

The required data was collected from the chosen books, named Essentials of English Grammar by Murphy and Balti Grammar by Lobsang, for contrastive analysis, and among the three tenses (Chhatkhhi Rgalbong): present, past, and future, named Dose Rgalbong, Gopa Gralpong, and Jukla Rgalbong, only the present tense was chosen for data collection, and later on, the collected data was passed through the qualitative data analysis software Quirkos systematically.

Present Simple Tense in Balti and English

English: Bano drinks water. SVO Balti: Bano chho thung naid. SOV

English Negative: Bano does not drink water. Balti Negative: Bano chho thung maid.

English Interrogative: Does Bano drink water? Balti Interrogative: Bano chho thung nged da?

English Interrogative Negative: Does Bano not drink water? Balti: Bano chho thung med da?

English Positive: Bano and Singay drink water. Balti: Bano na Singay chho thung nged.

Negative: Bano and Singay do not drink water. Bano na Singay chho thungned da?

Present Continuous Tense in Balti and English

Positive: Bano is writing a folktale. Balti: Bano zdrung chik bren yod.

Negative: Bano is not writing a folktale. Balti: Bano zdrung chik bren med.

Interrogative: Is Bano writing a folktale? Balti: Bano zdrung chik bren yoda?

Interrogative negative: Is Bano not writing a folktale? Balti: Bano zdrung chik bren meda?

Present perfect tenses in Balti and English

Positive: Bano has a written book. Balti: Bano si shoqbu chik bri sed.

Negative: Bano has not written a book. Balti: Bano has not written a book.

Interrogative: Has Bano written a book? Balti: Bano shoqbu chik bre seda?

Interrogative Negative: Has Bano not written a book? Bano shoqbu chik bres meda?

Present Perfect Continuous in Balti and English

Positive: Bano has been writing a folktale since January 2024.

Balti: Bano zdrung chik January 2024 si khana na bren yod pin.

Negative: Bano has not been writing a folktale for many days.

Balti: Bano zdrung chik jhaq khayik la na bren yod pin.

Interrogative: Has Bano been writing a folktale since January 2024?

Balti: Bano zdrung chik January 2024 kha na bren yod pin ina?

Interrogative Negative: Has Bano not been writing a folktale for many days?

Balti: Bano zdrung chik jhaq khayik la na bren med pi ina?

Wordstat Balti



CASE	DOCUMENT
<i>Article; Contrastive with QDA</i>	<p>Contrastive Analysis with Quirkos: A Qualitative Study Balti and English Syntactic Process</p> <p>Present Simple:</p> <p>English: Bano drinks water. SVO</p> <p>Balti: Bano chho thung naid. SOV</p> <p>English Negative: Bano does not drink water.</p> <p>Balti Negative: Bano chho thung maid.</p> <p>English Interrogative: Does Bano drink water?</p> <p>Balti Interrogative: Bano chho thung nged da?</p> <p>English Interrogative Negative: Does Bano not drink water?</p> <p>Balti: Bano chho thung med da?</p> <p>English Positive: Bano and Singay drink water.</p> <p>Balti: Bano na Singay chho thung nged.</p> <p>Negative: Bano and Singay do not drink water.</p> <p>Bano na Singay chho thungned da?</p> <p>Present continuous tense</p> <p>Positive: Bano is writing a folktale.</p> <p>Balti: Bano zdrung chik bren yod.</p> <p>Negative: Bano is not writing a folktale.</p> <p>Balti: Bano zdrung chik bren med.</p> <p>Interrogative: Is Bano writing a folktale?</p> <p>Balti: Bano zdrung chik bren yoda?</p> <p>Interrogative negative: Is Bano not writing a folktale?</p> <p>Balti: Bano zdrung chik bren meda?</p>

Balti Syntactic Process ***English Syntactic Process***

Comparison of Syntactic Processes in Balti and English	
Balti Syntactic Process	
SOV Word Order	
Unique Grammatical	Features in Balti
+-----+	
Examples of Sentence Structures in Balti	Bano zdrung chik bred. SOV +-- Bano dzrung chik bred.
English Syntactic Process	
+-----+	SVO
SVO Word Order	
+-----+	Bano writes a folktale.
Common Grammatical	Structures in English
+-----+	
Examples of Typical	English Sentences
+Bano writes a folktale.	
Key Differences	
+--Syntactic process variations	
Unique Syntactic	Features in Each
+-----+	SOV vs. SVO
Linguistic	Influence
+-----+	
Impact on Communication	
+--Interference of L1 rules to L2	Interlingual errors and Intralingual errors Interlanguage
Challenges for	Learners In

Total codes found: 04 Total themes found: 01 Global theme: 01

Results

The results found in findings demonstrated the key dissimilar syntactic processes of Balti to English systematically. The outcomes illustrated that the basic rules of syntactic process between Balti and English are dissimilar, as Balti follows the SOV rule in contrast to English's SVO for sentence formation process in tenses. The most common word orders of the languages across the globe are SOV, SVO, VSO, and VOS (Dryer, 2005, p. 331). In linguistic typology, it has been noticed that around 45 percent of the world languages follow the SOV syntactic order,

42 percent follow the SVO, and the rest follow the VOS, OSV, and OVS. Balti falls in the category of 45% of the world's syntactic dominant languages and is therefore contrasted to English.

Limited to the Balti and English syntactic processes of present tenses in positive, negative, interrogative, and interrogative negative statement formation processes, were compared systematically. Contrast to English, Balti present tenses are generated with the SOV process, which sometimes leads the learners to challenges in learning English as L2. Rules of L1 become a hindrance for the enrollees of L2 when there are unlike morphosyntactic variations, and consequently, errors are made by the enrollees in the targeted situations. The results found with QDA Miner illustrated the variations in the syntactic procedure of the limited syntactic comparative analysis until the data saturation. The comparisons were done under the approach of CA-named contrastive analysis, which aimed to thrash out the key dissimilarities between Balti and English sentence structure processes.

Synthesis and Conclusion

The study aimed at exploring the dissimilar syntactic processes of Balti and English sentences under the approach of contrastive analysis, and the collected data was limited to the simple tense of both languages. The collected data was passed through the qualitative data analysis software named QDA Miner 3.1 version while focusing on the research objective of the current study and finding the dissimilar areas of syntactic processes in Balti and English accordingly. The findings illustrated that the basic rules of syntactic process between Balti and English are dissimilar, as Balti follows the SOV rule in contrast to English's SVO for sentence formation process in tenses. The most common word orders of the languages across the globe are SOV, SVO, VSO, and VOS (Dryer, 2005, p. 331). In linguistic typology, it has been noticed that around 45

percent of the world languages follow the SOV syntactic order, 42 percent follow the SVO, and the rest follow the VOS, OSV, and OVS. Balti falls in the category of 45% of the world's syntactic dominant languages and is therefore contrasted to English.

For the process of thematic analysis, the familiarization with data was done while observing the text given in the Balti grammar book and the English of Murphy; secondly, the codes were generated systematically and put in the QDA Miner (version 3.0, 2023); thirdly, we searched the themes and found a single theme as the central theme or global theme; fourthly, we reviewed the theme and the analysis of the theme; and lastly, after finalizing the analysis, the report was processed accordingly.

The study was just limited to the Balti and English syntactic processes of present tenses in positive, negative, interrogative, and interrogative negative statement formation processes. Contrast to English, Balti present tenses are generated with the SOV process, which sometimes leads the learners to challenges in learning English as L2. Rules of L1 become a hindrance for the learners of L2 when there are dissimilar morphosyntactic variations, and consequently, errors are made by the learners. The findings with QDA Miner illustrated the variations in the syntactic process of the limited syntactic comparative analysis until the data saturation. The comparisons were done under the approach of CA-named contrastive analysis, which aimed to thrash out the major dissimilarities between Balti and English sentence formation processes.

In short, the study proved the linguistic variation and the typology in terms of the syntactic processes of Balti and English accordingly, and the findings illustrated the position of the Balti and English syntactic processes in the languages across the globe. The findings of this study aligned with the proposed theoretical framework of the current study and indicated that the

dissimilarity of the rule of target language, or L2, became a hurdle for the learners with variant L1 rules. The English syntactic process of English tenses is found to be dissimilar to Balti, and it is the major cause of syntactic errors by the Balti students while using English as an L2. So, this study has contributed to the field of linguistics, particularly Balti and English syntactic processes, in terms of contrastive analysis. The findings will be a guideline for future researchers to thrash out the remaining gaps in Balti syntactic processes in English or any other prominent language across the globe.

Replication of Results

For the replication of the results, two statements of each (limited to the selected tenses) from both languages were taken from Balti by (Shafique, 2022) and English by (Kaufman, et al., 2021). Consistent with the original study, the replication analysis confirmed a comprehensible difference in the syntactic procedure between Balti and English Syntax. Balti predominantly exhibited a Subject plus Object plus Verb (SOV) pattern, where the subject precedes the object and the verb occupies the final position in the statements. In contrast, English consistently followed a pattern of Subject plus Verb plus Object (SVO) structure, where the subject is followed by the verb and then the object in the syntactic process for sentence formation.

References

Bano, N., Rehman, A. M., & Issa, M. (2024). The Extinction of Words from Use: A Critical Aspect of Balti Language Endangerment. Researchgate. *Annals of Human and Social Sciences*. DOI:10.35484/ahss.2024(5-I)17

Costa, J. (2020). Balti Documentation. A Sketch Grammar for the Balti Language.

<https://blogs.cuit.columbia.edu/baltidocumentation/2020/09/29/hello-world/>

Dryer, S. M. (2005). 81: Order of Subject, Object, and Verb. [www.acsu.buffalo.edu](http://www.acsu.buffalo.edu/~dryer) > ~dryer >

DryerWalsSOVNoMap

Kaufman, L. & Straus, J. (2022). The Blue Book of Grammar and Punctuation. An Easy-to-Use Guide with Clear Rules, Real-World Examples, and Reproducible Quizzes.

Bookauthority. <https://bookauthority.org/books/best-english-grammar-books>

Khansir, A., Dehkordi, F. & Mirzaei, M. (2021). Learning strategies and English language teaching. Theory and Practice in Language Studies. DOI: 10.17507/tpis.1106.19

Mair, C. (2023). Contrastive Analysis in Linguistics. Oxford Bibliographies.

https://www.researchgate.net/publication/343748870_Contrastive_Analysis_in_Linguistics_Oxford_Bibliographies_Mair_2018_submitted

Maryam, F., Niazi, S. & Lashari, A. A. (2024). Tense and Aspect in Balti Language: Morphological Perspective. Journal of Asian Development Studies.

Researchgate. DOI: 10.62345/jads.2024.13.1.66

OpenAI. (2024). *ChatGPT* (3.5) [large language model]. <https://chat.openai.com>

Provalis, R. (2023). New enhanced topic modeling features and significantly faster performance.

Provalis Research Releases WordStat. <https://provalisresearch.com/news-events/provalis-research-releases-wordstat-2023>

Rickaby, A. A. (2023). The Survival of Contrastive Analysis Hypothesis: A Look under the Hood. *Theory and Practice in Language Studies*, Vol. 13 (No. 1): 1–7.
DOI:10.17507/tp1s.1301.01

Schneider, P., Klettner, M., and Matthes, F. (2024). A Comparative Analysis of Conversational Large Language Models in Knowledge-Based Text Generation. *Researchgate*. Conference: 18th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2024)

Shafique, H. (2022). Balti Language Sentences and their Translation into English. *Wordymagazine*. <https://wordymagazine.com/balti-language-sentences/>

Weisser, J. (2023). Quirkos Unwrapped 2023: An Amazing Year in Qualitative Research.
<https://www.quirkos.com/blog/post/quirkos-unwrapped-2023/>

Wollacott, M. (2023). What is contrastive analysis? *Language and Humanities Organization*.
<https://www.languagehumanities.org/what-is-contrastive-analysis.htm>

Zhang, J., Lan, Z., and He, J. (2024). Contrastive Learning of Sentence Embeddings from Scratch. *ALC Anthology*. <https://aclanthology.org/2023.emnlp-main.238>. DOI: [10.18653/v1/2023.emnlp-main.238](https://doi.org/10.18653/v1/2023.emnlp-main.238)