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## An Optimality-Theoretic Study of Contextual Elision in Spoken Iraqi Arabic

Sahar Mohammed Jaleel<sup>1</sup>, Balqis I. G. Al-Rashid<sup>2</sup>

### Abstract

*This study investigates the phonological process of contextual elision in Spoken Iraqi Arabic (SIA) in terms of Optimality Theory (OT) by Prince & Smolensky (1993). The variety examined in this study is used in the southern part of Iraq since it is the native dialect of the researcher. The analysis of the data concludes that all the types of contextual elision in SIA, including elision of vowel, consonants and whole syllables can be accounted for within the framework of OT. It is also revealed that certain OT constraints, such as NUCi/u, MAX-IO, -LATERAL and \*GEM, compete to generate the elided forms.*

**Keywords:** Contextual Elision, Optimality Theory, Constraint, Candidate, Optimal, Spoken Iraqi Arabic.

### Introduction

Elision is one of the phonological processes in casual speech. Schane (1973:p.52) defines elision as one of the phonological processes that occurs within the syllabic structure of words in which phonemes are omitted in certain contexts resulting in different syllabic structure. It is defined as the omission of sounds, segments or the whole sound sequences in connected speech (Katamba, 1989: p.277). Contextual elision occurs when a sound exists in a word, but it is dropped in connected speech (Wells & Colson, 1971). According to Johnes (1984, p.231), contextual elision is the disappearance of sounds: vowels, consonants or a whole syllable of a word in connected speech. The present study aims at identifying one type of elision: contextual elision in SIA. It attempts to answer the following questions:

1. How does OT operate to account for all the different types of contextual elision?
2. What are the specific OT constraints that compete to generate the optimal outputs?

The study aims at investigating the applicability of OT in analyzing the three types of contextual elision, and identifying the OT constraints that compete to generate the elided forms. The hypotheses of the study are the following:

1. Different types of contextual elision can be investigated through the use of a constraints-based model, namely OT.
2. Certain OT constraints compete to generate the optimal outputs.

The study consists of eight sections. Section 2 presents a description of OT. Section 3

<sup>1</sup> Department of English, College of Education for Human Sciences, University of Basrah, Email: [saharmohammedjaleel@gmail.com](mailto:saharmohammedjaleel@gmail.com)

<sup>2</sup> Department of English, College of Education for Human Sciences, University of Basrah.



introduces the phonological system of SIA. Section 4 identifies contextual elision as a phonological process. Section 5 involves a review of previous studies, shedding the light on the gaps in the literature. Section 6 shows the methodology used. Section 7 provides an OT analysis of contextual elision in SIA. Finally, Section 8 provides the conclusions of the present study.

## **OT**

OT is one of the most influential phonological theories. It was introduced by Allan Prince and Paul Smolensky in 1993. It proposed that the observed forms of a language come from the satisfaction of conflicting constraints.

OT makes a radical change with the previous rule-based generative theories. (Kager, 2004: p.2). It is a constraint-based model. In OT, grammar is viewed as systems that provide mapping from inputs to outputs. Then, the inputs are remarked as underlying representations and the outputs as their surface realizations.

As a result, OT deals with universal constraints not rules. A number of candidates compete in order to get the optimal one. The following sub-sections discuss the principles and components of OT.

### **Principles of OT**

There are certain main principles that can be identified in OT. These principles include universality, violability, ranking, inclusiveness and parallelism (Prince & Smolensky, 1993; McCarthy & Prince, 1994; Kager, 1999 / 2004).

Universality refers to a set of constraints (Con) that is provided by universal grammar (UG). These constraints are universal, i.e. all languages have the same set of the universal constraints. The way of violation and ranking of specific constraints will be language-specific features.

Violability means that certain constraints are violable. The degree of violation is minimal. This principle indicates that some constraints are chosen to be violated and others to be met. All the candidates will violate certain constraints. The candidates that violate high-ranked constraints will be out of competition. The ones that violate low-ranked constraints will be optimal.

Ranking indicates that constraints (Con) are ranked with minimal violation in a language. The grammar of a language depends on how such a language ranks universal constraints. The ranking will be limited by a specific basis of that language.

Inclusiveness involves only conceivable candidates that are generated in the hierarchy because they are the only inclusive outputs in the analysis to get a possible well-formed output.

Parallelism means that the interaction of constraints takes place in parallel. There is no serial order or derivation, i.e. no gradual derivation in the ranking of the well-formed outputs is found. Instead, a simultaneous application of all the phonological, morphological and prosodic changes is involved in the proposed constraints.

### **Components of OT**

OT includes three main components. These components are Generator (GEN), Evaluator (EVAL) and Constraints (CON). Such components summarize the whole process of OT. They can be illustrated in more details in the following subsections.

#### **Generator (GEN)**

Generator (GEN) takes an input and generates a list of possible outputs or candidates. OT proposes that there are no language specific restrictions on the input. This is called “the richness of the base” (Prince & Smolensky, 1993: p.5; McCarthy, 2004: p.19). This means that no constraints hold at the level of underlying forms.

Every language can give possible inputs. The Generator is able to generate an unlimited number of outputs (candidates). All these outputs stem from the input. This is called “freedom of analysis” (McCarthy, 2002). Ranking of the constraints in a language will determine which candidate will be chosen as the optimal one by EVAL.

### **Evaluator (EVAL)**

Evaluator (EVAL) chooses the optimal candidate based on the ranking of the constraints. The main function of EVAL is evaluating the given candidates so as to select the most harmonic (viz. the optimal) candidate. EVAL is considered as language-specific since it determines the constraints of a specific language that are used to evaluate the candidates.

McCarthy (2008:p.19) states the relationship between the input, GEN, the candidates set, EVAL and the output as follows:

/ input / → GEN → {cand1, cand2,....} → EVAL → output

This reads that a certain input is the universal component of the grammar. GEN generates a candidate set out of which the optimal candidate is chosen.

Economy, strict domination and parallelism are distinct features of EVAL. According to Prince & Smolensky (1993: p.72) and Kager (2004: p.31), economy means “banned options are available only to avoid violation of higher-ranked constraints and can only be banned minimally.” This means that economy of EVAL permits only the candidates that do not violate the high-ranked constraints are chosen.

Kager (2004: p.22) explains strict domination as “violation of higher-ranked constraints cannot be compensated for by satisfaction for lower-ranked constraints.” This explanation indicates that higher-ranked constraints have priority over lower-ranked ones.

Finally, parallelism is stated by Kager (2004: p.25) as “all constraints pertaining to some type of structures interact to a single hierarchy.” In other words, the interaction of constraints happens in parallel rather than in serial order in a single hierarchy. Thus, such interaction is simultaneous.

### **Constraints (CON)**

In OT, each constraint is universal. CON is the same in every language. There are two types of CON: faithfulness constraints and markedness constraints.

#### **a. Faithfulness Constraints**

Faithfulness constraints assume that the output matches the underlying form (input). These constraints require identity between the inputs and the outputs (McCarthy, 2007: p.5).

Prince & Smolensky (1993: p.4) and McCarthy (ibid) propose the following basic groups of faithfulness constraints:

Max-IO prohibits deletion (from ‘maximal’)

DEP-IO prohibits epenthesis (from dependent)

IDEN-IO (F) prohibits alternation to the value of feature F

( from identical)

LIN-OT The order of input elements must be preserved in the output

### Markedness Constraints

Markedness constraints are introduced by Prince & Smolensky (1993). They include:

Nuc means syllables must have nuclei

-CODA syllables must have no codas

ONS syllables must have onsets

HNUC a nuclear segment must be more sonorous than another

\*COMPLEX a syllable must not have more than one segment in its  
onset, nucleus or coda

WSP Heavy syllables must be stressed

NONFIN A word-final syllable or ( foot ) must not bear stress

PK-PROM Light syllable must not be stressed

CON has the universal constraints hierarchy that is ranked due to language-specific preferences. Language-specific differences decide the type of constraints to be ranked high and the ones to be ranked low. However, this ranking is regarded as the device of solving the conflict of the constraints interaction.

### The Tableau of OT

The framework of OT can be illustrated through the use of a certain tableau (Prince & Smolensky, 1993). This tableau depicts the whole process of OT.

/ Input /	Co1	Co2	Co3
☞ Cand1		*	*!
Cand2	*	*	
Cand3	*!		

Tableau (2.1)

Con1 >> Con2 >> Con3

This tableau shows that the input lies in the top left cell. There are a set of candidates of the input beneath it. The constraints are located, according to their ranking, beside the input ( Con1, Con2, Con3 ) respectively since Con1 is higher located than Con2 and Con3. Then, the result is Co1 >> Co2 >> Co3.

It is clear that the candidate gets an asterisk (\*) in the cell crossing the candidate and the constraints since it violates the constraints. The candidate takes an exclamation mark (!) if it

violates a higher-ranked constraint as well. Accordingly, such candidate becomes out of competition because it causes a fatal violation. A shaded cell means that the candidate satisfies the constraint crossing it. The optimal candidate is marked by a pointing finger (☞). It gets fewer asterisks. So, it has an empty blank below higher-ranked constraints. Finally, the symbol (>>) means that the constraints on the left are higher-ranked than the ones on the right (Prince & Smolensky, 1993).

To sum up, the main concern of OT is to get well-formed outputs which can be taken from the inputs through universal yet minimally violated constraints. As a result, OT is considered as an input-output device that explains how grammars are formed.

### **The Phonological System of SIA**

Arabic has three main varieties in the Arab world: Classical, Standard and Vernacular. Classical Arabic is the language of the Holy Quran and literature. Standard Arabic is used by educated people, in broadcasts, sermons, and speeches. Vernacular Arabic is the most spoken variety in the Arab countries. In Iraq, the third variety is spoken by most Iraqi people which is called SIA (Van Ess, 1981; O'leary, 1925; Blanc, 1964; Jastrow, 1994; Versteegh, 2001). SIA is the variety of Arabic that is spoken by most people in Iraq. It has three main dialects: Baghdadi, Southern and Mosuli dialects (Abu-Haidar, 1988: pp.74-80).

SIA, like any other variety, has its own phonetic and phonological system. The phonological system of SIA includes three short vowels: /a/, /i/, and /u/; and five long vowels: /aa/, /ee/, /ii/, /oo/, and /uu/. Moreover, it has thirty-two consonants: ten plosives /p/, /b/, /t/, /t̪/, /d/, /d̪/, /k/, /g/, /q/, and /ʔ/; thirteen fricatives /f/, /θ/, /ð/, /ð̪/, /s/, /s̪/, /z/, /ʃ/, /x/, /ç/, /h/, /ħ/, and /ʕ/; two affricatives /tʃ/ and /dʒ/; two nasals /m/ and /n/; two laterals /l/ and /l̪/; two approximants /w/ and /y/; and one flap /r/ (Ghalib, 1984: p.xii-xiii).

As far as the syllable structure is concerned, there are eleven syllable patterns in SIA. These syllables are /cv/, /cvv/, /ccv/, /ccvv/, /cvc/, /cvcv/, /ccvvc/, /cvcc/, /cvvc/, /cvvcc/ and /ccvcc/ (Abdul Sattar, 1989).

### **Contextual Elision**

Contextual elision can be classified into three types in SIA: elision of vowels, consonants, and whole syllables where the sound which exists in careful speech is omitted in casual speech.

Elision of vowels can be seen in SIA through the deletion of the short vowels /a/, /i/, and /u/ in different phonetic contexts in rapid speech. For example, the omission of the short vowel /a/ as in /raah 9alee/ 'he went to see him' becomes [raah 9lee]. There is also the deletion of the short vowel /i/ as in /lisaan/ 'tongue' becomes [lsaan]. Furthermore, the short vowel /u/ can be dropped as in /ʃinu ndʒiib/ 'what would we bring' becomes [ʃindʒiib] (Nahar, 1998: p.273).

Elision of consonants refers to the deletion of a consonant of a word in different phonetic contexts in casual speech. It occurs to simplify consonant clusters. The deletion of the glottal stop /ʔ/ is frequent in SIA. For example, /samaaʔ/ 'sky' is pronounced as [sima]. Besides, the nasal consonant /n/ is elided in fast speech as in /min saa9a/ 'an hour ago' becomes [missaa9a] (Al-Yemeni, 2002: p. 572). Moreover, the lateral /l/ can be elided in certain words such as /ʃloonak/ 'How are you' becomes [ʃoonak].

Elision of whole syllables occurs when a whole syllable of a word or words combination is deleted in rapid speech. In SIA, the omission of a whole syllable can be seen in certain phonetic

contexts in which the syllable is unstressed. The deletion of a whole syllable includes the syllable /lin./ in the phrase /xal.lin.'juuf/, 'Let's see' which is pronounced as [xan.'juuf]. There is also the omission of the whole syllable /ha/ as in /haðaak/ 'that'sing.mas.which becomes [ðaak] (Al-Moosili, 2001: p.561).

### **Previous Studies**

Elision has been analyzed in terms of OT in some Arabic dialects, including Cairene Arabic (Aquil, 2013), Tobruq Libyan Arabic (Bobaker, 2018) and Makkan Arabic (Kabrah, 2019). In fact, no study has yet used OT to analyze elision in SIA. The only study applying OT in analyzing elision in the Basrah Iraqi Dialect is by Abdul Sattar (2017) who examines only vocalic elision. His findings reveal that the faithfulness constraints are ranked as DEP-IO >> IDENT-IO >> MAX-IO. Thus, MAX-IO is the surviving constraint which generate the optimal candidate. Thus, the present study attempts to fill the gap by applying OT to different types of elision in SIA.

### **The Procedures of the Study**

The procedures that are adopted in this study can be summarized as follows:

1. There are two ways that are used in collecting the data of the present study. First, the researcher depends on her own observations since she is a native speaker of SIA. Second, some data are taken from the previous studies that investigate contextual elision as a phonological process in SIA.
2. Presenting a number of words in which different types of contextual elision occur in SIA, transcribing and syllabifying them.
3. Conducting a set of OT constraints that is used in the analysis of this study.
4. Analyzing the results and outlining the conclusions.
7. Data Analysis

This section presents the analysis of the data including all the types of contextual elision: elision of vowels, consonants, and whole syllables in SIA in terms of OT. It contains the selected constraints that are used in the analysis of this study. The results of the analysis are then discussed and the findings are interpreted to get a clear view of elision in SIA. The conflict between the faithfulness and markedness constraints can be resolved by ranking the constraints in a hierarchy. The following faithfulness constraints are selected to analyze contextual elision in SIA (McCarthy and Prince, 1995: pp122-123):

- (1) MAXIMALITY-INPUT-OUTPUT (MAX-IO): Every element of S1 has a correspondent in S2.
- (2) DEPENDENCE-INPUT-OUTPUT (DEP-IO): Every element of S2 has a correspondent in S1.
- (3) IDENTITY-INPUT-OUTPUT (IDENT-IO): S1 and S2 have correspondent segments and they have identical value for the feature F.
- (4) LINEARITY-INPUT-OUTPUT (LIN-IO): The order of the input elements must be preserved in the output.

As far as the markedness constraints are concerned, the following constraints are selected to analyze the relevant data in this study:

- (5) ONSET (ONS): Syllables must have onsets (Prince & Smolensky, 1993/2004: p.96).
- (6) \*COMPLEX ONS (\*σ CC): Onsets are simple (Kager, 1999: p.97).
- (7) NUCLIE I/U (NUCi/u): High vowels cannot be peaks of syllables (Goukova, 2003).
- (8) NO-LATERAL (-LATERAL): Syllables must not have laterals (as cited in Ibrahim,2023).
- (9) NO-GLOTTAL-STOP-CODA (\*?)σ): Glottal stops are disallowed in coda position (Boersma & Hayes, 2001: p.57).
- (10) GEMINATE (\*GEM): Geminate consonants are prohibited (Grosswhite, 1998 as cited in Apostolopoulou, 2022: p.256).
- (11) NO-FRICATIVE (-FRICATIVE): Syllables prohibit fricatives (as cited in Ibrahim, 2023).

**An OT Analysis of Elision of Vowels**

Elision of vowels occurs because of the deletion of vowels in words in casual speech in SIA. For example, /hu.'naak/ ‘there’ becomes /'hnaak/ and /'lisaan/ ‘tongue’ becomes ['lisaan]. This phonological process of elision can be explained by analyzing the selected phonological constraints. The following tableaux show how contextual elision changes the syllable structures of these words from /cvcvvc/ into /ccvvc/. Besides, the ranking of the constraints indicates that the markedness constraints NUCi/u, ONS and the faithfulness constraint DEP-IO are ranked at the top and dominate the lowest ranked-constraints \*[σ CC and MAX-IO.

/ hu.'naak /	NUCi/u	DEP-IO	ONS	*[σ CC	MAX-IO
(a) [hu.'naak]	*!				
(b) [?'ih.'naak]	*!	*!			*
(c) [hun.'aak]	*!		*!		
☞(d) ['hnaak]				*	*

Tableau (1) Derivation of ['hnaak] ‘there’ from the input / hu.'naak /  
 NUCi/u, DEP-IO, ONS >>\*[σ CC, MAX-IO

/li.'saan/	NUCi/u	DEP-IO	ONS	*[σ CC	MAX-IO
(a) [li.'saan]	*!				
(b) [li.'saa.nu]	*!	*!			
(c) [lis.'aan]	*!		*!		
☞ (d) ['lisaan]				*	*

NUCi/u, DEP-IO, ONS >> \* $[\sigma$  CC, MAX-IO

In the tableaux above, Candidate (a) makes a fatal violation of the highest-ranked constraint NUCi/u since there are the high short vowels /u/ and /i/ in the syllables /hu./ and /li./ respectively. Accordingly, this candidate is eliminated. Candidate (b) violates DEP-IO where the sounds /ʔ/ and /i/ are inserted in [ʔih.'naak] and the short vowel /u/ is added in [li.'saa.nu]. UCi/u is still violated. MAX-IO is flouted in [ʔih.'naak] for deleting /u/. The fatal violations of NUCi/u and DEP-IO exclude this candidate. Candidate (c) satisfies the faithfulness constraint DEP-IO and the lowest ranked-constraints \* $[\sigma$ CC and MAX-IO. It violates the highly ranked-constraint ONS where there is no onset in the syllables /aak/ in [hun.'aak] and /aan/ in [lis.'aan] respectively. Besides, NUCi/u is also flouted. These fatal violations eliminate this candidate. Candidate (d) satisfies all the highest-ranked constraints NUCi/u, ONS, and DEP-IO. This candidate is the winning output since it violates the lowest ranked-constraints \* $[\sigma$  CC, where there are complex onsets in the first syllables, and MAX-IO, where the high short vowels /u/ and /i/ are deleted.

### An OT Analysis of Elision of Consonants

Elision of consonants occurs when there is a deletion of a consonant in a word or word combinations in casual speech. For example, /'sa.maaʔ/ 'sky' and /'loo.nak/ 'How are you?' become ['si.ma] and [loo.nak], respectively, in rapid speech in SIA. The syllable structure of these words is shifted due to elision of consonants. Certain constraints are applied to get the elided outputs. The interaction of these constraints is shown in the following tableaux

/'sa.maaʔ/	* $[\sigma$	ONS	LIN-IO	IDENT-IO	MAX-IO
(a) ['sa.maaʔ]	*!				
(b) ['sam.aaʔ]	*!	*!			
☞ (c) ['si.ma]			*	*	*

Tableau (3) Derivation of ['si.ma] from the Input /'sa.maaʔ/

\* $[\sigma$ , ONS >> LIN-IO, IDEN-IO, MAX-IO

The hierarchy in Tableau (3) indicates that the markedness constraints \* $[\sigma$  and ONS are ranked at the top and dominate the faithfulness constraints LIN-IO, IDENT-IO and MAX-IO which are ranked lower.

Here, Candidate (a) violates the highest ranked-constraint \* $[\sigma$  since there is the glottal stop /ʔ/ in the syllable /maaʔ/. The fatal violation of this constraint eliminates this candidate. In Candidate (b), the highest ranked-constraint \* $[\sigma$  is still violated. ONS is also violated where the syllable /aaʔ/ does not have an onset. These serious violations exclude this candidate. Candidate (c) satisfies the highest ranked-constraints \* $[\sigma$  (where a coda position does not have a glottal stop) and ONS (the syllables /si./ and /ma/ have onsets). It violates the lowest ranked-constraints



LIN-IO (the order of the input elements /'sa.maa?/ is not preserved in the output ['sima] ), IDENT-IO (the short vowel /a/ is substituted by the short vowel /i/ in the first syllable /si./; the long vowel /aa/ is replaced by the short vowel /a/ in the second syllable /.ma/ ) and MAX-IO because of the deletion of the glottal stop /ʔ/ in the syllable /.maa?/. Consequently, this candidate is the optimal one.

/'loo.nak/	- LATERAL	IDENT-IO	ONS	MAX-IO
(a) ['loo.nak]	*!			
(b) ['loo.nik]	*!	*!		
(c) ['loon.ak]	*!		*!	
☞ (d) ['oo.nak]				*

Tableau (4) Derivation of ['oo.nak] from the Input /'loo.nak/

-LATERAL, IDENT-IO, ONS >> MAX-IO

The hierarchy of the constraints in Tableau (4) demonstrates that the markedness constraints – LATERAL, ONS and the faithfulness constraint IDENT-IO are ranked at the top and dominate the lowest ranked-constraint MAX-IO.

Candidate (a) makes a fatal violation of the highest ranked-constraint – LATERAL where the syllable /loo./ has the lateral /l/. Consequently, this candidate is excluded. In Candidate (b), – LATERAL is still violated. The highest ranked-constraint IDENT-IO is flouted since the short vowel /a/ is replaced by the short vowel /i/. Thus, these fatal violations eliminate this candidate. Candidate (c) still violates the highest ranked-constraint – LATERAL. Moreover, it makes a serious violation of the highest ranked-constraint ONS where there is no onset in the syllable /.ak/. Accordingly, this candidate is ruled out. Candidate (d) satisfies the highest ranked-constraints – LATERAL (the lateral /l/ is deleted), IDENT-IO (there is no substitution) and ONS (every syllable has an onset: /loo./ and /.nak/). It violates the lowest ranked-constraint MAX-IO since the lateral /l/ is deleted. This candidate is then the optimal one.

### An OT Analysis of Whole Syllables

Elision of whole syllables occurs when there is a deletion of a whole syllable in a word or word combinations in casual speech in SIA. For example, /min.ʔih.'naak/ ‘from a distance’ becomes [min.'naak], and /xal.lin.'juuf/ ‘Let’s see’ is pronounced as [xan.'juuf]. The tableaux below illustrate how the phonological process of elision changes the syllable structure of words or word combinations and certain constraints are applied to get the elided outputs.

/min.ʔih.'naak/	-FRICATIVE	DEP-IO	MAX-IO	*GEM
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(a) [min.'ih.'naak]	*!			
(b) [min.'naa.ka]		*!	*	*
☞ (c) [min.'naak]			*	*

Tableau (5) Derivation of [min.'naak] from the Input /min.'ih.'naak/

-FRICATIVE, DEP-IO &gt;&gt; MAX-IO, \*GEM

Tableau (5) reveals that the markedness constraint –FRICATIVE and the faithfulness constraints DEP-IO are ranked at the top and dominate the faithfulness constraint MAX-IO and the markedness constraint \*GEM which are ranked lower.

In this tableau, Candidate (a) flouts the highest ranked-constraint – FRICATIVE since there is the fricative /h/ in the syllable /.'ih./. This fatal violation excludes this candidate. Candidate (b) attempts to satisfy – FRICATIVE by deleting the syllable /.'ih./, resulting in a violation of MAX-IO. Moreover, \*GEM is also violated for forming the geminate consonants /nn/. There is a fatal violation of DEP-IO since the short vowel /a/ is inserted making the syllable /ka/. Accordingly, this candidate is ruled out. Candidate (c) violates the lowest ranked-constraints MAX-IO (where the syllable /.'ih./ is deleted) and \*GEM because of the geminate consonants /nn/. Thus, this candidate is the optimal one.

/xal.lin.'juuf/	*GEM	-LATERAL	DEP-IO	MAX-IO	IDENT-IO
(a) [xal.lin.'juuf]	*!	*!			
(b) [?in.'juuf]			*!	*	
☞ (c) [xan.'juuf]				*	*

Tableau (6) Derivation of [xan.'juuf] from the Input /xal.lin.'juuf/

\*GEM,-LATERAL, DEP-IO &gt;&gt; MAX-IO, IDENT-IO

The hierarchy in Tableau (6) clarifies that the markedness constraints \*GEM, –LATERAL and DEP-IO are ranked at the top and dominate the faithfulness constraints MAX-IO and IDENT-IO which are ranked lower.

Here, Candidate (a) violates fatally the highest ranked-constraints \*GEM (there are the geminate

consonants /l/) and –LATERAL because of the presence of the lateral /l/ in the syllables /xal./ and /.lin./. Thus, this candidate is eliminated. Candidate (b) avoids the violation of \*GEM and –LATERAL by deleting the lateral /l/. MAX-IO is flouted since the syllable /xal./ and the lateral /l/ of the syllable /.lin./ are deleted. Besides, DEP-IO is violated fatally due to the insertion of the glottal stop /ʔ/ making the syllable /ʔin./. This candidate is then excluded from the competition. Candidate (c) flouts the lowest ranked-constraint IDENT-IO because the lateral /l/ is substituted by the nasal /n/ in the syllable /xan./. MAX-IO is still flouted because of the deletion of the syllable /.lin./. Consequently, this candidate is the optimal one.

## Conclusions

This study examines the phonological process of contextual elision in SIA in terms of OT. It aims at investigating the applicability of OT in analyzing this process and identifying the OT constraints that compete to generate the elided forms. It is concluded that OT effectively accounts for all the types of contextual elision: elision of vowels, consonants, and whole syllables. This validates the first hypothesis. Furthermore, the results indicate that there are specific markedness and faithfulness constraints competing to get the elided outputs. The most frequent domains are NUCi/u, MAX/IO, –LATERAL, and \*GEM, respectively. This supports the second hypothesis. Thus, this study fills a gap in the literature by using the OT framework in analyzing contextual elision in SIA. It provides comprehensive insights into the nature of the phonological process of elision in SIA.

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