Georgetown University
*Department of Arabic and Islamic Studies*

**Arabic Linguistics Society**
رابطة اللسانيات العربية

# The 35th Annual Symposium on Arabic Linguistics

## المؤتمر السنوي الخامس والثلاثون للسانيات العربية

## March 25, 2022 - March 27, 2022

Georgetown University
Copley Formal Lounge (Map)

Conference Website: *https://arabic.georgetown.edu/the-35th-annual-symposium-on-arabic-linguistics/*

## Keynote Speakers:

Fawwaz Al-Abed Al-Haq
President
*Hashemite University*

Ellen Broselow
Professor
*Stony Brook University*

Peter Hallman
Theoretical Linguist
*Austrian Research Institute for Artificial Intelligence*

Reem Khamis-Dakwar
Professor
*Adelphi University*

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# WELCOME

Dear Participants,

We are very happy to welcome you to the 35th Annual Symposium on Arabic Linguistics (ASAL35) at Georgetown University. This is the second time the conference is held in Washington, D.C., and we hope it continues to open the door to future Arabic Linguistics events. We are grateful to our sponsors for enabling us to bring ASAL35 to Georgetown University, and to our respective department chairs, administrative staff and students for helping us to make it happen.

We are fortunate to have four plenary keynote speakers this year: Dr. Fawwaz Al-Abed Al-Haq, President at Hashemite University in Jordan; Dr. Ellen Broselow, Professor of Linguistics at Stony Brook University; Dr. Peter Hallman, theoretical linguist at the Austrian Institute for Artificial Intelligence; and Dr. Reem Khamis-Dakwar, Professor of Communication Sciences and Disorders at Adelphi University.

We wish to extend special thanks to our abstract reviewers for helping us navigate the large number of abstracts we had received and select submissions of the highest quality. In keeping with ASAL tradition, there are no parallel sessions. ASAL35 has eleven single sessions featuring 33 paper presentations. Please note that the prize for best student abstracts will be recognized at the Arabic Linguistics Society's Business Lunch Meeting on Friday, March 25, 2022. The conference presentations and business lunch are held in one of the most iconic rooms at Georgetown University: Copley Formal Lounge. Copley Formal Lounge occupies the first floor of Copley Hall; Copley Formal Lounge combines an elegant, relaxed setting inside the neo-gothic structure of Copley Hall.

ASAL35 Banquet Dinner/Reception will be held in the red square tent, right outside Copley Hall. We hope that you will be able to join us. The ASAL35 Banquet Dinner/Reception is free. For important information about the conference, please visit the website: https://arabic.georgetown.edu/the-35th-annual-symposium-on-arabic-linguistics/

If there is anything else we can do to make your stay comfortable please don't hesitate to let us know by emailing us at asal35georgetown@gmail.com. Finally, we wish to thank the Executive Director of the Arabic Linguistics Society, Dr. Hamid Ouali, and Board member, Dr. Mahmoud Azaz, for answering our questions and sharing their extensive experience with us, and we look forward to sharing ours with ASAL36 organizers.

**Enjoy the conference and the city of Washington, D.C., the nation's capital!**
**Organizer**
*Ahmad Alqassas*
*Department of Arabic and Islamic Studies*

## ACKNOWLEDGMENTS

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**Special thanks to our ASAL35 session chairs (ordered aphetically by first name)**

1. Amel Khalfaoui
2. Bethany Weppler
3. Ellen Broselow
4. Mahmoud Azaz
5. Maris Camilleri
6. Mohamed Embarki
7. Noura Bellali
8. Peter Hallman
9. Reem Khamis-Dakwar
10. Stuart Davis
11. Talal Alharbi

**Special thanks to our keynote speakers' introductions (ordered aphetically by first name)**

1. Ahmad Alqassas (Introducing Dr. Fawwaz Al-Abed Al-Haq)
2. Amel Khalfaoui (Introducing Dr. Reem Khamis-Dakwar)
3. Mohamed Embarki (Introducing Dr. Peter Hallman)
4. Stuart Davis (Introducing Dr. Ellen Broselow)

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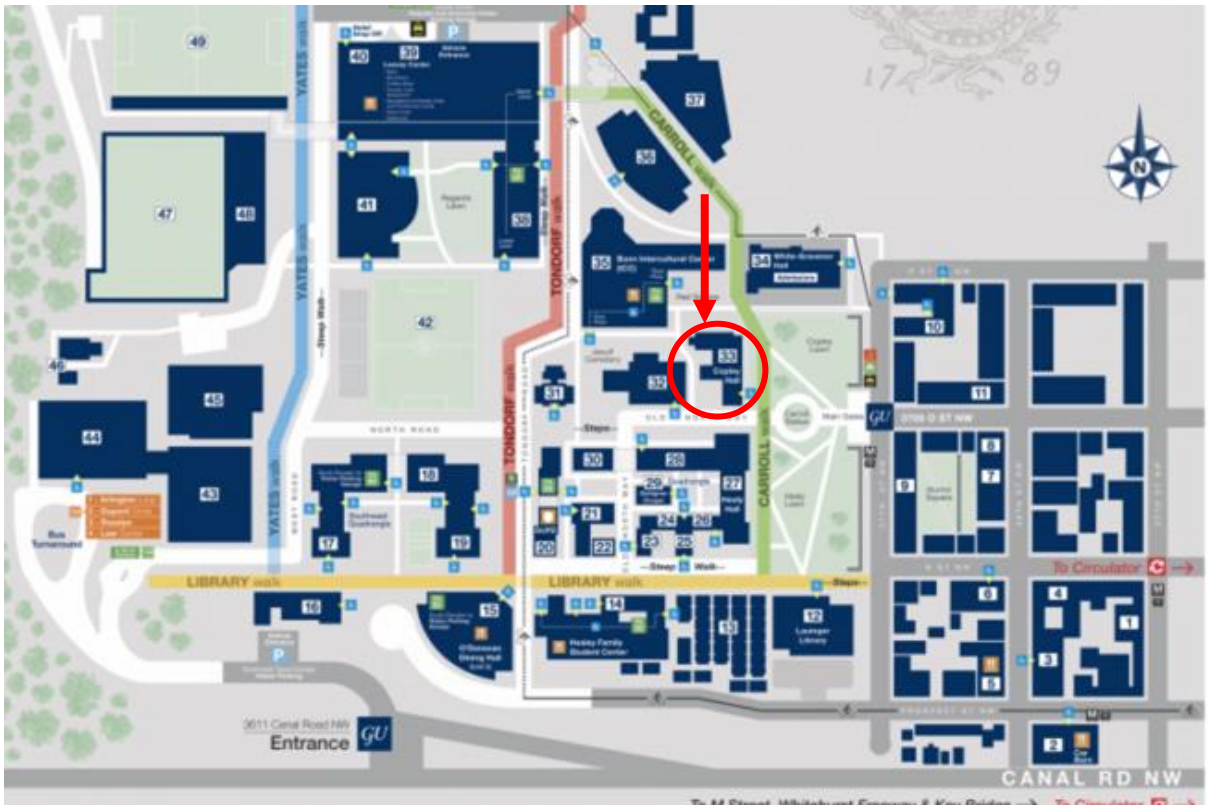
• Karen McNeil, PhD Student
• Noura Bellali, PhD Student
• Talal Alharbi, PhD Student

*This booklet has been prepared by Ahmad Alqassas with the assistance of Talal Alharbi, Meriem Tikue, and Stephanie Hakeem.*

## GETTING AROUND

***Conference venue***

ASAL 35 is held in the **Copley Formal Lounge,** as circled below. The entrance to Copley Formal Lounge is indicated by the arrow. The street address is 3700 Ost NW, Washington, DC, 20057. To know the map of the Georgetown University, please visit this website: https://maps.georgetown.edu/




***Eating around Copley Formal Lounge***

There are plenty of restaurants and places to eat around the conference venue, including down on M St. For all dietary restrictions and eating on campus, please visit this link: https://auxiliary.georgetown.edu/gu-dining/

***Venue of the banquet/reception on Saturday at 6:00pm***

The ASAL Banquet Dinner/Reception will be held onsite in the tent right outside of Copley Formal Lounge.

## CONFERENCE SCHEDULE

### Friday, March 25 (Copley Formal Lounge)

8:00-8:45 **Registration and Coffee/Breakfast**

8:45-9:00 **Opening Remarks**
**David Edelstein, Vice Dean of Faculty and Interdisciplinary Strategy, Georgetown College**

**SYNTAX**

***Chair: Dr. Mohamed Embarki***

9:00-9:30 **Maris Camilleri (University of Essex)**
(Re)visiting fih and its Ramifications on the Wider Grammar

9:30-10:00 **Abdelkader Fassi Fehri (Mohamed Bin Zayed University) & Maather Alrawi ( King Abdulaziz University)**
Arabic PPs in a Rooted Lexicon

**10:00-11:00** ***Keynote***
**Peter Hallman (Austrian Research Institute for Artificial Intelligence)**
***Introduction by Dr. Mohamed Embarki***
A- and A'-movement in Standard Arabic: Evidence from Comparatives

**11:00-11:15 Coffee Break**

**PHONOLOGY**

***Chair: Dr. Ellen Broselow***

11:15-11:45 **Noor Abo Mokh & Stuart Davis (Indiana University)**
Two Cases of Dissimilation in Palestinian Arabic and Their Theoretical Implications

11:45-12:15 **Mohammed Al-Ariqy (The University of Utah)**
An Argument for the Rank-Ordered Model of Eval from Glottal Stop Deletion in Ta'izzi Yemeni Arabic

12:15-12:45 **Mohamed Embarki (University of Franche-Comté) & Jonathan Owens (University of Bayreuth)**
Morphophonological Conditioning and a Typology of Arabic Phonology

**12:45-2:00 Catered Lunch and Business Meeting**

**DIGLOSSIA, CORPUS, & DISCOURSE**

***Chair: Dr. Mahmoud Azaz***

2:00-2:30 **Amel Khalfaoui (University of Oklahoma)**
Vocatives as Attitudinal Markers: The Vase of the Tunisian Arabic Vocative Particle ha:

2:30-3:00 **Karen McNeil (Georgetown University)**
Orthographic and Code-switching Patterns of Tunisian Arabic

3:00-3:30 **Asmaa Taha (The University of Mississippi)**
The Vagueness Functions of the Marker bita:ʕ in Egyptian Arabic

3:30-3:45 **Coffee Break**

**3:45-4:45** ***Keynote***

**Fawwaz M. Al-Abed Al-Haq (Hashemite University)**
***Introduction by Dr. Ahmad Alqassas***
A Sociopragmatic Study of Endearment by Spouses in Jordanian Arabic

**SYNTAX & SEMANTICS**

***Chair: Dr. Maris Camilleri***

4:45-5:15 **Radek Šimík, Adam Pospíšil (Charles University) & Ouras Aljani (University of Nantes)**
Doubling Unconditionals in Arabic **(Virtual)**

5:15-5:45 **Shatha Alahmadi & Vera Hohaus (The University of Manchester)**
On the Different Readings of the Focus Particle KAMAN in Hijazi Arabic **(Virtual)**

## Saturday, March 26 (Copley Formal Lounge)

**8:00-8:30 Registration and Coffee/Breakfast**

**SOCIOLINGUISTICS**

***Chair: Dr. Amel Khalfaoui***

8:30-9:00 **Talal Alharbi (Georgetown University)**
The Saudi Arabic 'dude': The Development of Meanings and Functions of /jaxi/

9:00-9:30 **Rania Habib (Syracuse University)**
The Structural and Social Distribution of the Negative Particles la(a)ʔ, laa, and w(a)-laa in Syrian Arabic **(Virtual)**

**9:30-10:30** ***Keynote***
**Reem Khamis-Dakwar (Adelphi University)**
***Introduction by Dr. Amel Khalfaoui***

Opportunities and challenges in decolonizing linguistic studies of Arabic language development

**10:30-10:45 Coffee Break**

**SYNTAX/ HISTORICAL SYNTAX**

***Chair: Dr. Peter Hallman***

10:45-11:15 **Faruk Akkus (University of Massachusetts Amherst)**
On Complementizer Agreement and Clitic Doubling

11:15-11:45 **Zeineb Sellami (University of Chicago)**
Complementizer Agreement is Subject Clitic Doubling in Tunisian

11:45-12:15 **Basem Al-Raba'a (KIMEP University)**
On the Grammaticalization of ʕaad in Jordanian Arabic

12:15-12:45 **Muhadj Adnan & Jonathan Owens ( University of Bayreuth)**
On the Pre-history of Pre-verbal Imperfect Markers in Arabic

**12:45-2:00 Lunch (on your own)**

**Morphology and Psycholinguistics**

***Chair: Noura Bellali***

2:00-2:30 **Lily Xu (University of California, Los Angeles)**
Representation of Verbal Paradigms by Egyptian Arabic Speakers: Evidence from wazn I Vowel

2:30-3:00 **Ali Idrissi, Shahad Alazbi & Yousri Marzouki (Qatar University)**
Root and Stem Priming Effects in Word Recognition in Arabic

**ACQUISITION**

***Chair: Dr. Stuart Davis***

3:00-3:30 **Mahmoud Azaz (University of Arizona)**
Bidirectional L2 acquisition of genitive constructions in Arabic and English: A Linguistic approach

3:30-4:00 **Layal Abboud (Université de Tours), Lina Choueiri (American University of Beirut) & Laurice Tuller (Université de Tours)**
The Emergence of Clauses in Young Lebanese-Arabic-speaking Children **(Virtual & In-person)**

4:00-4:30 **Hassane Razkane (Chouaib Doukkali University), Samir Diouny (Hassan II University) & Mohamed Yeou (Chouaib Doukkali University)**
Cognitive Retroactive Transfer of (meta-)linguistic Skills from English (L3) into French (L2) and Standard Arabic (1) Among Trilingual Moroccan Learners **(Virtual)**

**4:30-4:45** **Coffee Break**

**4:45-5:45** ***Keynote***
**Ellen Broselow (Stony Brook University)**

***Introduction by Dr. Stuart Davis***

What can phonetics tell us about Arabic phonology?

**6:00-8:00** **Banquet/Reception**

**Sunday, March 27 (Copley Formal Lounge)**

**8:30-9:00** **Coffee/Breakfast**

**HISTORICAL LINGUISTICS**

***Chair: Bethany Weppler***

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Does Levantine Arabic Clitic Doubling Derive from Aramaic? A Contact Linguistics Approach

9:30-10:00 **Jason Schroepfer (Virginia Military Institute)**
Remixing Sibawayhi's Sounds of Silence **(Virtual)**

**MORPHOLOGY & PSYCHOLINGUISTICS**

*Chair: Dr. Reem Khamis-Dakwar*

10:00-10:30 **Youssef Rami (Chouaib Doukkali University), Samir Diouny (Hassan II University), Najib Kissani (Mohammed VI University) & Mohamed Yeou (Chouaib Doukkali University)**
Adaptation of the Boston Diagnostic Aphasia Examination into Moroccan Arabic **(Virtual)**

10:30-11:00 **Mounia El Jaouhari (Mohammed V University), Samir Diouny (Hassan II University), Mira Goral (City University of New York), Youssef Rami (Chouaib Doukkali University) & Abdellatif AlGhadi (Mohammed V University)**
Further Inspection of Naming and Connected Speech Impairments in Moroccan Pati ents Diagnosed with Alzheimer´s Disease **(Virtual)**

11:00-11:30 **Loubna El Ouardi (Chouaib Doukkali University), Samir Diouny (Hassan II University) & Mohamed Yeou (Chouaib Doukkali University)**
Pronoun Production in Moroccan Arabic Agrammatism **(Virtual)**

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**PHONOLOGY**

*Chair: Talal Alharbi*

11:45-12:15 **Mutasim Al-Deaibes (Khalifa University) & Marwan Jarrah (University of Jordan)**
Production of Arabic Geminates by English Speakers

12:15-12:45 **Abeer Abbas & Sun-Ah Jun (University of California, Los Angeles)**
Farasani Arabic Intonational Phonology: Intonation Ignores Stress Unless a Word is Focused

12:45-1:15 **Adam Pospíšil (Charles University)**
Neutralisation of Voice in Colloquial Arabic Verbs **(Virtual)**

**1:15** **Closing Remarks**

## Abstracts of keynote presentations
(*ordered according to their sequence in the schedule*)

### A- and A'-Movement in Standard Arabic: Evidence from Comparatives

***Peter Hallman, Austrian Research Institute for Artificial Intelligence***
***peter.hallman@ofai.at***

Constraints on both A- and A'-dependencies are difficult to observe in Arabic because Arabic has widesspread clitic left dislocation, which is not subject to constraints on movement (Doron and Heycock 1999, Soltan 2007, a.o.). In this talk, I show firstly that comparative constructions reveal true A'-movement at LF, including preposition-stranding. Secondly, I claim that a subset of comparative constructions displays raising (A-movement) and exceptional genitive case-marking.

Comparative constructions like (1) compare two individuals in terms of a predicate derived covertly in the syntax. To interpret (1), we must covertly move the object *ʃ-ʃaːj* 'tea' out of its clause, leaving a trace interpreted as a semantic variable, deriving the predicate *Ahmad loves x*. Then we compare tea (the moved DP) with coffee (the complement of *min* 'from') as values for *x*.

(1) yu-ħibb-u aħmad ʃ-ʃaːj-a ʔakθar-a min al-qahwat-i.
3MS-like-IND Ahmad the-tea-ACC more-ACC from the-coffee-GEN
'Ahmad likes tea more than coffee.'

I show that this covert movement operation is subject to the usual constraints on A'-movement, but, surprisingly, it may strand a preposition, as (2) shows. Here, we are comparing India and Yemen in terms of the predicate *Spice traders travel to x*, meaning we have extracted *l-hind* 'India' from the PP headed by *ʔilaː* 'to'. This is ungrammatical as an overt topicalization structure (3). The possiblity of moving a genitive-marked DP at LF does not extend to possessors (4), where we are unable to derive the predicate *I visited x's farm* underlying the unavailable reading, because the DP *mazraʕata maʕnin* 'Maan's farm' is a barrier. I conclude that the impossiblity of surface preposition-stranding in Arabic is due to a superficial requirement for genitive case to appear adjacent to its governor at PF.

(2) yu-saːfir-u tuʒʒaːr-u t-tawaːbil-i ʔilaː l-hind-i ʔakθar-a min l-jaman-i.
3MS-travel-IND traders-NOM the-spices-GEN to the-India-GEN more-ACC than the-Yemen-GEN
'Spice traders travel to India more than Yemen.'
(3) *ʔal-hind-i yu-saːfir-u tuʒʒaːr-u t-tawaːbil-i ʔilaː.
the-India-GEN 3MS-travel-IND traders-NOM the-spices-GEN to
(4) zur-tu mazraʕat-a maʕn-in ʔakθar-a min marwaːn-a.
visited-1S farm-ACC Maan-GEN more-ACC from Marwan-GEN
Available: 'I visited Maan's farm more than Marwan did.'
Unavailable: 'I visited Maan's farm more than I visited Marwan's farm.'

I further investigate the significance of a special comparative phrase of the form *ʔakθar min-pro PP* 'more from-pro PP', as seen in (5) (Badawi et al. 2016, p. 281). I show that the circumstances that license this construction are just those under which *badaː* 'seem' functions as a raising verb, that is, when it shows agreement with an underlying subject. I conclude that (5) involves raising of the subject of an elided adjectival predicate (here *qaːʔimat* 'based') to complement of *min* 'from' and exceptional genitive case marking.

(5) kaːn-at ʃuhr-at-u tawfiːq l-ħakiːm qaːʔim-at-an ʕalaː l-masraħ-i ʔakθar-a
was-3FS fame-FS-NOM Tawfiq Al-Hakim based-FS-ACC on the-theater-GEN more-ACC
min-haː ʕalaː ʔalwaːn-i l-ʔadab-i l-ʔuxraː.
from-it on genres-GEN the-literature-GEN the-other
'Tawfiq Al-Hakim's fame was based more on theater than on other genres of literature.'

**References:**


Badawi, Elsaid, Michael Carter, Adrian Gully and Maher Awad (2016) *Modern Written Arabic*. Routlege.

Doron, Edit and Caroline Heycock (1999) Filling and Licensing Multiple Specifiers. In Adger, David, Bernadette Plunkett, George Tsoulas and Susan Pintzuk (eds.) *Specifiers: Minimalist Approaches*. OUP, pp. 69-89.

Soltan, Usama (2007) *On Formal Feature Licensing in Minimalism*. PhD Dissertation, U. of Maryland.


## A Sociopragmatic Study of Endearment by Spouses in Jordanian Arabic


***Fawwaz M. Al-Abed Al-Haq, Hashemite University***

***fawaz_m@yu.edu.jo***



This study investigates the endearment strategies and terms used by spouses in Jordan, in different formal informal *and situations*. These strategies were examined in relation to the effect of gender*, age* and *level of education*. The data was gathered using discourse completion task (DCT) and observation. The participants of the current study were 90 couples, (a total number of 180 participants). They were chosen and divided based on their level of education. Thus, participants of Tawjihi or less than Tawjihi constitute the *first group*. Participants with high level of education: bachelor, masters, or PhD were the *second group*. They were also classified according to age. *The first age group* was between (18-29), *the second age group* (30-49), and *the third age group* (50 and above). The data was analyzed based on Afful and Nartey's (2013) classification with some adaptation to meet the Jordanian culture. The adapted framework was Brown and Gilman (1960). The results show that spouses used 16 different terms (epithet, royal, coinage, flora, fauna, religious, kinship, teknonyms occupation, first name, zero form, borrowed words, personality and physical appearance, regional terms, love expressions and other terms and expressions). Spouses also used verbal strategies such as, the use of the opposite *gender suffix* (i.e. using female suffix to address males and vice versa) and non-verbal strategies such as, smiling, head nodding, body and facial expressions. The results also present that each variable affects the terms of endearment differently and with a different degree. Spouses of younger *ages* tend to use more different terms of endearment. Regarding *gender*, males in general, recorded a higher number in using terms of endearment than female participants. As for the *level of education*, low educated participants use terms of endearment more frequently than participants of a higher education. They also vary in their choices more than the educated participants.


## Opportunities and challenges in decolonizing linguistic studies of Arabic language development


***Reem Khamis Dakwar***, ***Adelphi University***

*Khamis-Dakwar@adelphi.edu*



Decolonization, the process of dismantling all forms of domination produced by colonial structures in the modern world system, has lately been discussed in regard to university operations, global knowledge production, and specific fields like linguistics, neuroscience, and cognitive sciences. However, these efforts have yet to directly engage Arabic linguistic and cognitive research.

In this talk, I will critically examine the colonized lens through which linguistic studies on Arabic language acquisition have progressed. To illustrate this point, I review the progression of my own studies of language development in Palestinian native Arabic speaking children and Arabic heritage speakers in the United States to show the potential impacts of colonization on our scientific inquiries at all stages. The review will exemplify the prioritization of a monolingual orientation in the development of experimental design, data collection, data analysis and interpretation over a heteroglossic pluralistic inquiry. The risks of such orientation biases will be discussed including the potential promotion of racialized norms and pathologization of variation, the unintended exclusion of conducting other relevant queries related to language acquisition that are more specific to the sociocultural context of the Arabic-speaking speech community, and the failure to embrace sociocultural experiences as part of the theoretical evolvements related to language development.

In closing, I will argue that a decolonized research approach can advance our interpretations of Arabic diglossia, incentivise innovativeness in our studies, and modernize inclusive conceptions of human language representation and processing. The result is empowering rather than pathologizing or othering Arabic diglossia and enables the development of scholarship that is informative rather than prescriptive. Ultimately, I will urge members of the Arabic Linguistic Society to engage in exercises of self-reflection and positionality in regard to how our current practice is rooted in or affected by colonized assumptions and expectations.

**What can phonetics tell us about Arabic phonology?**

***Ellen Broselow, Stony Brook University***

***ellen.broselow@stonybrook.edu***

The past half century of generative phonology has seen numerous and sometimes conflicting proposals concerning the nature of the abstract mental representations of phonological structure. Within the field of Arabic phonology, the representation of syllable structure has been a particularly lively issue--many varieties of Arabic have productive phonological processes (such as the deletion, insertion, and shortening of vowels and the assignment of word stress) which appear to be dependent on syllabic structure, and various proposals have aimed to link typological variation in spoken Arabic to cross-dialectal differences in the way that segments may be incorporated into higher prosodic constituents. Claims concerning the incorporation of consonants into syllables have included the analysis of consonants as syllable nuclei, as 'semisyllables' which bear a mora but are unaffiliated with any syllable, and as partially moraic, sharing a mora with a preceding vowel.

Recent years have seen an increasing number of studies aiming to investigate the fit between specific models of prosodic structure and the articulation of spoken Arabic varieties, reflected in the phonetic duration of segments and/or the coordination of articulatory gestures. Despite this upsurge in interest, conclusive evidence that would allow us to choose among specific theories of phonological representation for specific varieties of Arabic is still lacking. In this talk, I will survey the existing evidence and outline future directions for expanding our investigation of the match between phonetic realization and phonological structure (regarding word-initial consonant clusters, the structure of word-internal syllable nuclei and coda, the apparent weightlessness of word-final consonants, and the structure of geminate consonants) as well as the implications for theories of typological variation in Arabic.

## (Re)visiting *fīh* and its ramifications on the wider grammar

***Maris Camilleri, University of Essex***
***mcamil@essex.ac.uk***

This study takes as its starting point the side of a sub-set of accounts on *fīh* that are available in the literature, namely Halila (1992), Eid (1993, 2008), and Hallman (2020), where in contrast to expletive-type analyses, as in e.g., Mohammad (2000), Boneh and Sichel (2010) and Alharbi (2017), *fīh* is treated as a grammaticalised verbal item that sits in V. It will be demonstrated how data from Palestinian (e.g. Hoyt (2000)) and Aleppo Syrian (Jarad, 2012) (1) suggest that *fīh* can alternatively sit in C. That this is a possibility in these particular dialects should come to no surprise, given the functional (vs. lexical) nature of *fīh* in V. More weight will be given to the availability of *fīh* in C by considering other functional elements in the Palestinian grammar and how these too end up featuring in the C node (Karawani, 2014).

(1) kān fī ~ **fī** kān taḥt iṭ-ṭāwli iṭṭa

be.PFV.3SGM FĪ FĪ be.PFV.3SGM under DEF-table cat
A cat was under the table. Aleppo Syrian - Jarad (2012, pp. 250-251)

Once *fīh*'s category is established in view of the previous literature, its function will here be further understood vis-à-vis its distribution. While *fīh* has until now been discussed in the context of locative, possessive and existential structures, its presence is here demonstrated to be more widespread. It is additionally (optionally) available in the context of experiencer and psychological predicates (the former represented in (2a)) and in structures where it functions as a more general marker of unaccusativity (2b) with/out the presence of an inverted structure. The common denominator underlying the distribution of *fīh* seems to be the presence of a [-DEF] *theme* argument (either SUBJ or OBJ) and/or non-agentive SUBJs.

(2) a. simiʕa (fī) aṣw-āt ʕāly-e w-hū nāyem

hear.PFV.3SGM FĪ noise-PLF loud-SGF CONJ-3SGM.NOM sleep.ACT.PTCP.SGM
He heard loud noises while he was asleep.

b. (fī) aǧa fi ɣyab-him ʕarab

FĪ come.PFV.3SGM in absence-3PLM.GEN bedouin.PL
Bedouins came in their absence. Rural Palestinian

At this juncture, where reference to inverted locatives has been briefly made, in which structures *fīh* is often obligatorily or optionally available, depending on the nature of the structure (e.g., copular or not) and the constraints as they apply in the individual dialects, the study will demonstrate how as we better understand *fīh* and its distribution in the wider Arabic grammar, it is high time to concomitantly revisit the syntax of inverted locatives. In identifying such structures as involving PP SUBJs, in contrast to previous analyses, we will be in a position to: 1) revisit NOM marking in Classical/Standard Arabic and how it gets assigned, 2) better understand what motivates the contexts where we find alternating default 3SGM non-default agreement and 3) provide diachronic weight to Hallman's (2020) synchronic analysis of predicative possessive structures in Syrian, where the PP *possessor* is treated as the SUBJ.

A fully-fledged revisiting of *fīh* will not be complete unless we rethink existential structures in Arabic. Eid (2008) and Mughazy (2013) have for instance already highlighted how Egyptian Arabic allows for the presence of a (non-coordinated/non-list like) [+DEF] *theme* argument (3) in the context of *fīh* – proto- typically available only in the context of [-DEF] *themes*. It is here shown that this is true of other dialects too and argued that this phenomenon is specifically constrained to bare/coda-less existential structures.

| | | | | | | |
|---|---|---|---|---|---|---|
| (3) kullu | tamām, | bass | lissa | fīh | **il-**muškila | iyyāh-a |
| all | good | but | now | FĪH | DEF-problem.SGF | that-SGF |

Everything is fine, but there is still that problem. Egyptian: Mughazy (2013)

In pursuing an investigation into what a violation of the DEF restriction within this context suggests, a connection with observations that have to do with the lexicalisation of *fīh* as evinced in Saudi dialects (Alsaeedi, 2019) will be made. This will lead to hypothesising that *fīh* in such structures has taken on a distinct function in the grammar, where, as it consolidates its V category, it grammaticalises further into a lexical predicate, bringing its cycle of change full circle albeit with a transcategory shift: *lexical* P > V.

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## Arabic PPs in a rooted lexicon

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Characterizing Arabic PPs in both traditional or generative grammar is not an easy task. It faces numerous challenges as regards their nature in semantics, syntax, or lexicon. With respect to categorical status, prepositions are tentatively analysed as (a) *lexical* (Chomsky 1970, 1995, Jackendoff 1977), (b) *functional* (Baker 2003, Grimshaw 1991), or (c) *both lexical* and *functional*, or *semi-functional* (Svenonious 2010; Ryding 2005, Saeed 2014). This paper presents and argues for a specific treatment of PPs as having a PP shell structure, as in Svenonious' work, or more precisely as distributed words, as in Wood & Marantz (2017) DM analysis of English, or Fassi Fehri & Amiri (2021) for Arabic. More like verbs in the vP complex, the preposition in a pP projection has a dual life; as a lexical item heading the prepositional rootP, and a categorizing head *p* of pP. 'Small' p then assigns genitive case, in parallel to *v*, which assigns accusative. Morphologically, *p* alternates as overt, or hidden (Emonds 1985, Kayne 2005). With adverbials (*duruuf*), PP often surfaces with 'accusative' (inherent) case (Landau 2010). As for the lexical rootP, it has semantic content, and is often *polysemous*, in fact a form of homonymy of various semantic subtypes and alternations, involving LOCATION, DIRECTION, MOTION, etc. and the FIGURE or the GROUND play important roles in force dynamics, aspectual structures, degrees, scales, etc. (Talmy 2000, Tenny 1994, Fassi Fehri & Alrawi 2021).

To illustrate, consider few alternations of *fii* "in" in Standard or dialectal Arabic varieties, which often express LOCATION, or CONTAINMENT in the spatial domain, but it can also locate in a temporal or aspectual domain, or locate the experiencer in a state, etc., as in the following examples:

(1) a. *ʔana fii l-bayt-i*
I in the-house-GEN
'I am in the house.'

b. *mawʕid-u-na fii l-xaamisat-i*
appointment-NOM-our in the-five-GEN
'Our appointment is at 5 o'clock.'

c. *r-rajul-u fii ġaybuubat-in*
the-man-NOM in unconsciousness-GEN
'The man is unconscious.'

d. *na-taḥaddaṯu fii xams-i daqaaʔiq-a*
we-talk in five-GEN minutes-GEN
'We will talk in five minutes.'

e. *jalasa fii ṣamt-in*
sat in silence-GEN
'He sat silently.'

There is a basic locative meaning associated with the root P; and when *fii* and its complement merge, the (subject) Figure occurs in different domains or roles: SPACE in (1a), TIME in (1b), STATE in (1c), EVENt in (1d), and MANNER in (1e). In (1a), the locational *fii* occurs as a *Place* head (in a PlaceP), in contrast to *ʔilaa* 'to', which occupies a *Path* head (in a PathP), as in Goal constructions (2), which exhibits a prepositional/accusative alternation:

(2) a. *daxala l-miftaaḥ-u ʔilaa l-ḥaqiibat-i*
entered the-key-NOM to the-bag-GEN
'The key entered to the bag.'

b. *daxala l-miftaaḥ-u l-ḥaqiibat-a*
entered the-key-NOM the-bag-ACC
'The key entered the bag.'

Note now that the locative meaning of *fii* in the domain of TIME can vary, depending on whether it is translated as "in", a bounded CONTAINMENT, or as "at", a COINCIDENCE, or CONTACT (Hale 1986, Hale & Keyser 2002, Herzkovits 1986). But the domain of SPACE does not appear to allow the last meanings. COINCIDENCE or CONTACT are rather expressed by the preposition *bi* "at" in Standard Arabic (Fassi Fehri & Amiri 2021), as illustrated in (3), which parallels (1a):

(3) *ʔanaa bi-l-baab-i*
I at-the-door-GEN
'I am at the door.'

That *bi-fii* alternation is behind the CONTACT/CONTAINMENT contrast in Standard Arabic is also illustrated in (4), where *bi-* is expressing CONTACT in (4a), and there is a prepositional/transitive alternation in which the preposition is 'hidden', as in (4b); (Fassi Fehri et al. 2021):

(4) a. *ʔaxaḏ-tu bi-yad-i-hi*
took-I at-hand-GEN-his
'I took (at) his hand.'

b. *ʔaxaḏ-tu yad-a-hu*
took-I hand-ACC-his
'I took his hand.'

In a striking contrast, *bi-* in Machriqi dialects is often replacing *fii* in denoting CONTAINMENT, as in (1a) above with *fii*, in addition to COINCIDENCE, as in (5a &b) below from Levantine Arabic:

(5) a. *ʔana bi-l-bet*
I in-the-house
'I am in the house.'

b. *ʔana bi-l-beb*
I at-the-door
'I am at the door.'

In Maghribi dialects, on the other hand, *fii* is often generalized, instead of *bi* (both are mostly reduced to *f-* and *b-*), as in Moroccan Arabic (6):

(6) a. *ʔana fe-d-dar*
I in-the-house
'I am in the house.'

b. *ʔana fe-l-bab*
I at-the-door
'I am at the door.'

These variations, alternations, and morphosyntactic or semantic specifications (and others) can be hardly accounted for if the nature of prepositions were only lexical, or only functional. More arguments for the duality of the syntax of PPs (as both Root and Category at a dual syntax) will be provided, along the DM design (Halle & Marantz 1993), shell structure (Larson 1988), and the lexicon-dictionary divide built in, as in Wood & Marantz. (2017), Svenonius (2010), and Harley (2014), in addition to a model of lexical variation (Fassi Fehri et al. 2021).

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## Two Cases of Dissimilation in Palestinian Arabic and Their Theoretical Implications


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General overviews on dissimilation that discuss Arabic, such as Zemanek (2006) and Lipinski (1997), only consider cases that are static (e.g. the cooccurrence restriction of the first two root consonants not being identical, going back to Greenberg 1950) or involving glides (and high vowels) in certain morphological categories. A detailed example of the latter can be found in Boudlal's (2018) discussion of labial dissimilation in Moroccan Arabic whereby the passive participle of the verb [ʃaf] 'saw' is [məʃyuf] 'seen' where there is an understood underlying form **məʃwuf* and the form [məʃyuf] reflects dissimilation of the rounded glide *w* to *y* when before the round vowel *u*. Less discussed in the literature on Arabic are specific cases of consonantal dissimilation. In this paper we examine two cases of consonantal dissimilation that occur in Palestinian varieties. The first concerns depharyngealization of emphatics when occurring before certain guttural consonants; this has been previously noted by Herzallah (1990) for a rural West Bank variety. The second case involves the dissimilation of a prefixal glottal stop /ʔ/ to [h] when it precedes a root glottal stop that comes historically from *q; this phenomenon was also described in Geva-Kleinberger (2004) for Haifa Arabic based on data from speakers born before 1935. Our

data come from two contemporary Palestinian Arabic varieties: a rural Palestinian dialect spoken in the triangle area (RP) and a Northern Palestinian urban dialect spoken in Haifa (NP).

The depharyngealization of emphatics in RP entails the de-emphasis of the fricatives /sˤ ðˤ/ in the context of the back velars /x ɣ K/, which are historically uvular (*K* here is phonetically [k], but cognate with *q in Classical Arabic), where the emphatics /sˤ/ and /ðˤ/ de-emphasize when preceding a back velar /x ɣ K/. Instances of de-emphasis include: [sabaɣ] 'dyed', [sadaK] 'told the truth', [ðiyyiK] 'narrow/tight', and [siKiʕ] 'got cold', where the initial fricative is typically realized as emphatic in most other Arabic varieties. This is similar to the rural variety described in Herzallah (1990), where in both rural varieties de-emphasis does not occur if the emphatic fricative is after a back velar and emphatic /tˤ/ never de-emphasizes. This particular case of de-emphasis is analytically interesting in that it entails an abstract [RTR] (retracted tongue root) feature that marks both the emphatics and back velars (as in Zawaydeh 1999, among others) and the dissimilation can be analyzed as the delinking of this feature from the emphatic. The theoretical implications of this for Arabic and for the general classification of dissimilation (Payne 2017) will be discussed.

In the contemporary NP dialect of Haifa there is a dissimilation process whereby prefixal glottal stop /ʔ/ dissimilates to [h] when before a root glottal stop. Examples include [haʔdam] 'older', [haʔrˤab] 'closer', [haʔsˤar] 'shorter', [haʔall] 'less', [haʔsem] 'I divide'. There are two observations about this that we do not think have been noted before. First, the dissimilation only occurs with a glottal stop that comes from the historic uvular *q. Thus, there is no dissimilation in a word like [ʔaʔaʃʃer] 'I point' since the root-initial glottal is historically *ʔ. Second, for some speakers, dissimilation can occur even if [ʔ] is not the first root consonant as in [hawʔaħ] 'ruder'. Theoretically, the occurrence of dissimilation only when [ʔ] comes from historic *q indicates that the two types of glottal stops are featurally distinct suggesting that they have separate phonologies supporting the contention of Ali (2020). As a final matter, we discuss why these two types of dissimilation discussed here are unlikely to both occur in the same dialect.

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**An Argument for the Rank-Ordered Model of Eval from Glottal Stop Deletion in Ta'izzi Yemeni Arabic**

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This paper analyzes optional glottal stop deletion in word-initial utterance-medial position in Ta'izzi Arabic (TA). This deletion is accompanied by gliding of an adjacent vowel or deletion of a following vowel. However, it is limited by some factors. This paper assesses the ability of various OT-based theories of optionality to account for [ʔ] deletion, arguing that the rank-ordered model of EVAL (ROE; Coetzee 2006) provides a better account than alternatives such as partially ordered grammars (PO; Anttila 1997, 2007) and serial variation (SV; Kimper 2011).

The constraint HAVEPLACE (HP) triggers deletion because [ʔ] lacks place features. When an intervocalic onset [ʔ] is deleted, ONSET (ONS) causes the preceding vowel to spread to the vacated onset position, creating a glide. Alternatively, ONSET may be satisfied by deleting both [ʔ] and the vowel: [kallimi ʔabi]~[kallimi jabi]~[kallimi bi] 'tell.2F.SG my father'. Sometimes glottal stop deletion can create a diphthong: *[kallimiabi], but such an output is blocked in this language by *LHDIP (Carlson 1997) which penalizes diphthongs rising is sonority; unattested in TA.

(1)

| /kallimiʔabi/ | ONS | *LHDIP | HP | MAX-μ | MAX-ʔ |
|---|---|---|---|---|---|
| a. ☞kal.li.mi.ʔa.bi | | | * | | |
| b. ☞kal.li.mi.ja.bi | | | | | * |
| c. ☞kal.li.mi.bi | | | | * | * |
| d. kal.li.mi.a.bi | *! | | | | * |
| e. kal.li.mia.bi | | *! | | | * |

ROE assumes a cut-off line somewhere in the constraint ranking. Constraints above the cut-off line eliminate candidates as normal, but any candidate that survives to the cut-off line is a possible output. MAX-ʔ, HP and MAX-μ are then below the cut-off to yield variants presented below. This model captures the full range of variation, as illustrated in (1) with 'tell my father'. (e) is blocked by *LHDIP. ROE also captures other factors that limit deletion. For example, if [ʔ] follows a consonant, that consonant becomes an onset when [ʔ] is deleted: [kallim ʔaħmad] ~ [kalli maħmad] 'tell.2M.SG Ahmad'; see (2). If a vowel precedes [ʔ], the vowel following it deletes also: [kallimi ʔaħmad] ~ [kalli miħmad] 'tell.2F.SG Ahmad', which violates the MAX-μ constraint.

(2)

| /kallim ʔaħmad/ | ONS | *LHDIP | HP | MAX-μ | MAX-ʔ |
|---|---|---|---|---|---|
| a. ☞kal.lim.ʔaħ.mad | | | * | | |
| b. ☞kal.li.maħ.mad | | | | | * |
| c. kal.lim.aħ.mad | *! | | | | * |

However, when [ʔ] is part of the verbal root of the word, MAX-V-ROOT blocks deletion: [kallim ʔamal] ~ *[kallim amal] 'tell.2M.SG

Amal', (verbal root for [ʔamal]: ʔ-m-l); cf. [kallim ʔaħmad] ~ [kalli maħmad] (verbal root for [ʔaħmad]: ħ-m-d). As (3) shows, placing MAX-V-ROOT above the cut-off line produces this result.

(3)

| /kallim ʔamal/ | ONS | MAX-V-ROOT | HP | MAX-μ | MAX-ʔ |
|---|---|---|---|---|---|
| a. ☞kal.lim.ʔa.mal | | | * | | |
| b. kal.li.ma.mal | | *! | | | * |
| c. kal.lim.a.mal | *! | * | | | * |

Alternative theories fail. In PO, the ranking can vary across tableaux, poten-tially giving multiple outputs for one input. This model cannot capture all the variants in (1). Candidate (c) is harmo-nically bounded and thus cannot win under any ranking. Because PO merely permutes the ranking, it cannot produce this form. This, I argue, shows that an adequate theory of optionality must not be constrained by harmonic bounding.

Serial Variation, which uses PO in a serial derivation, also fails to capture variation due to GEN's restriction of producing outputs different from the input by only a single change. The problem for SV is producing the gliding option, as shown in (4), which takes up the derivation after [ʔ] is deleted. To produce the output with a glide, the derivation must now epenthesize an empty C position to which the preceding vowel's features can spread, as in candidate (d). But that incurs the same violations of HP that triggered the deletion of the glottal stop in the first place. So, if HP is ranked high enough to prevent us from reinserting the glottal stop here, it's also ranked high

(4)

| [kal.li.mi.a.bi] | HP | ONS | MAX-ʔ | HP-V | MAX-μ | MAX-V-Feat | DEP |
|---|---|---|---|---|---|---|---|
| a. kal.li.mi.a.bi | | *! | | | | | |
| b. kal.li.mi.ʔa.bi | *! | | | | | | * |
| c. ☞kal.li.mi.V.bi | | | | * | | * | |
| d. kal.li.mi.Ca.bi | *! | | | | | | * |

enough to prevent us from inserting this empty C-slot, so there in no path to the gliding candidate.

To conclude, this paper supports the ROE model of optionality and shows some shortcomings for the PO and Serial Variation models of optionality. It also argues that an adequate theory of optionality must not be constrained by harmonic bounding; it must be able to give us outputs that are harmonically bounded. ROE does this; PO doesn't. This is the property that gives ROE an advantage over PO with respect to Ta'izzi Arabic.

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**Morphophonological conditioning and a typology of Arabic phonology**


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It has been richly documented in the Arabic dialectological tradition that Arabic is characterized by a high degree of internal diversity (Behnstedt and Woidich 2013). It has also been utilized in interesting ways in the theoretical phonological tradition of generative grammar (Kiparsky 2003, Watson 2007). We argue that there is another important dimension to intra-Arabic variation, namely conceptualizing it on an Arabic-internal typological basis. To frame this issue as a general question we address it via a set of representative dialects focusing on the role of morphophonology in defining increasing stem complexity as more suffixes are added. Our comparative question is straightforward: what happens to phonological and morphophonological complexity as more affixes are added to a *CaCaC stem? The typology consists of four elements.

- Phonological structures, processes and constraints
- A set of comparative morphological categories, including in this case a stem form and up to two suffixes (CaCaC + suffix termed an "extended stem")
- A framework defining paradigmatic and comparative measures of shared and contrastive elements
- Hypotheses to orientate an explanation of structures of increasing complexity

The idealized *CaCaC stem is chosen because it is common to nouns and verbs (katab, kítab, kitáb, iktib; *bagar, búgaṛ, bugáṛ, bguṛ etc.), and in both categories accepts an identical or analogous set of affixes. In both, e.g. a feminine suffix -t ~ -Vt can be suffixed (*katab-**it**-ha* 'she wrote it.F' etc., *ubguṛ-**ut**-ha* 'her cow'). We compare eleven dialects (Jijel, Cherchell (Ch), Eastern Libya (ELA), Cairo (C), Lake Chad Arabic (LCA), Najdi (N), al-Nadhir (al-N, Yemen), Salt (S), Damascus (D), Cilicia (Ci), Muslim Baghdadi (BM). Basic phonological structures and rules/constraints are assumed, e.g. *CCC leading to CəCC or CCəC, CVCV → CCV (trisyllabic syncope) etc; differences in stress are included among stem difference parameters. The following three hypotheses guide the study.

1. As morphemes are added creating extended stems, the greater the diversity of patterns among the extended stems thereby created.
2. As morphemes are added, the greater the heterogeneity in the type of variation, phonological or morphophonological
3. As morphemes are added, morphophonological conditioning gains at the expense of phonological

Points 1 and 2 are seen in the comparison between a basic 3FSG perfect verb, and the same stem with an added V-initial suffix (3MSG) *CaCaC-Vt-u (etc.). Whereas the single 3FSG suffix induces four distinctive stem forms in the sample (1), two suffixes induce nine different stems/extended stems (2). Note that low-level, invariable phonetic differences of suffixes are ignored, e.g. *-at* vs. *-it* in 3FSG verb suffix.

(1) kátab-it (C, LCA), katb-at (D, Ci, al-Nadhir, S), iktíb-at (ELA, N) – kitb-at (Cherchell, Jijel, BM)

(2) katab-ít-u (C), kátb-at-o (S) – iktib-aat-ih (ELA) – kitb-aat-u (Ch) – kátəb-t-u (D), katb-iit-u (Ci), kitb-itt-u (Jijel)/katb-att-o (al-N) - iktíb-t-ih (N), kitbát-a (BM).

The key role of morphophonological conditioning (point 3) "explains" the diversity of stem forms. Non-exhaustively: Cairene stresses the first syllable of the 3FSG verb by a general phonological rule, but shifts it to the penult when a V-initial suffix is added; the 3FSG suffix is short if final, but lengthens before -V in ELA, Cherchell and Cilician, though to *-aat* in the former two, but to *-iit* in Ci. N exceptionally deletes the -V before the 3MSG suffix. The individual phonological motivations for these stem changes are in most cases universals of Arabic phonology. For instance, long vowels do not delete in Arabic and hence to protect a deletable short high vowel in an open syllable, Cherchell lengthens the vowel of the 3FSG suffix. The individual responses among the varieties can only be understood as morphophonologically, not simply phonologically defined, however. The 3FSG subject suffix -Vt before a -V initial suffix such as 3MSG *-u*: deletes the vowel in D and N, lengthens the vowel in ELA, Ch and Ci, is exceptionally stressed in C and LCA. In Damascene the 3FSG subject suffix *-it* induces deletion of the medial /a/ but the 3PL subject suffix *-u*, equally -V initial, does not, (nor does the 3MSG object pro). In all these cases, morphological identity of the suffix, sometimes stem as well, is crucial.
katab+it → katbit 'she wrote' (D)
katab#u = katabu 'they wrote' (D)
In sum, we offer a basic descriptive account of the configuration CaCaC – suffix 1 – suffix 2, we characterize these in their phonological and morphophonological dimensions, and we develop two "diversity indices" to facilitate (1) a global comparison of the stems as more affixes are added and (2) facilitate comparison among all of the dialects compared, both paradigmatically and dialect-internally. We thereby work towards a framework for typologizing stem/extended stem variation across all varieties of Arabic.

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## Vocatives as attitudinal markers: The case of the Tunisian Arabic vocative particle *ha:*

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Tunisian Arabic has two vocative particles, *ya:* and *ha:*, both of which head vocative phrases *(e.g., **ya:/ha:** Sonia.'* Based on analysis of naturally occurring data, this study uses Relevance Theory (Sperber and Wilson 1995) to demonstrate that the choice between *ya:* and *ha:* is not arbitrary. Rather, it is determined by semantic and pragmatic factors. First, I argue that the particle *ha:* encodes a propositional attitude in addition to its vocative function. Specifically, the particle *ha:* encodes a procedure which constructs a higher level explicature instructing the addressee that the speaker is expressing a ridiculing attitude toward the proposition expressed by the utterance that contains the vocative phrase. For example, in (1) the speaker is ridiculing the president's political

decisions. Note that in addition to *ha:*, the speaker uses the diminutive *wxaj* (little brother) to express ridicule.

(1) ***ha:/ya: Kais wxay*** *ra:k gʕart-ha w ha-lguʕra sʕi:b beʃ ti-tsallaħ*
ha: Kais brother.diminutive emph drilled.a.hole-it and this-hole difficult to refl-mend
'ha: Kais little brother, you screwed up big time and it will take a long time to mend this screwup.' (corpus)

The particle *ya:,* on the other hand, is a relatively unmarked default particle that is used in a wider variety of evaluative and non-evaluative utterances as shown in (2), where the speaker is asking the president not to change his mind about suspending the parliatment.

(2) *la: ruʒu:ʃ* ***ya:/#ha: siya:dit r-raʔi:s***
neg going back ya: Mr. the-president
'There is no going back Mr. President.' (corpus)

The claim that *ha*: signals a ridiculing attitude is supported with comparing the two vocative particles in terms of their distribution in expressive vs. non-expressive data and their co-occurrence with evaluative language that indicates ridicule (e.g., diminutives and sarcasm); and the claim that is it marked relative to *ya:* is supported with comparing the two particles in terms of frequency of distribution and constraints on use. Second, this distinction in the meaning of *ya:* and *ha:* has implications in terms of pragmatic theory. From a relevance perspective, the choice of the particle *ha:* in utterances like (1) is optimally relevant because it explicitly communicates the attitude that the speaker intends to attribute to the proposition expressed and, therefore, constrains the hearer's comprehension process and guides her/him to achieve the intended interpretation with the least processing effort. As shown in (1), the marked particle *ha:* can be replaced by the less marked *ya:*, but this choice implicates that the speaker is not willing to explicitly communicate his/her intention to express a ridiculing attitude because of other considerations. Finally, as shown in (2), when speakers do not intend to express a ridiculing attitude toward the proposition expressed, the use of *ha:* is infelicitous because the ridiculing meaning that it adds to the utterance imposes unnecessary processing effort on the hearer and may result in failure in communication.

## Orthographic patterns of written Tunisian Arabic

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Social and technological changes over the past several decades have led to widespread writing of "spoken" Arabic dialects. In Tunisia, vernacular writing has flourished since the 2011 revolution: although the first novel written entirely in Tunisian *dārija* did not appear until 2013, there are now nine of them, in addition to several translations, memoirs, and children's books (McNeil 2022). This is just one example of the expansion of vernacular Tunisian into domains previously reserved for Standard Arabic, such as advertisements (Walters 2003), radio stations (Achour Kallel 2011), classrooms (Bach Baoueb & Toumi 2012), the mosque (Sayahi 2014), and even in government (Sayahi 2019; Achour Kallel 2015).

Encoding a language variety like Tunisian Arabic in writing is not straightforward and mechanical, but rather a complex process that balances practical considerations with ideological

stances, such as autonomy from the standard language (Mühleisen 2005). Affinity with an established written language in which people are accustomed to reading may lead writers to prefer more Standard Arabic-like features, for example by preferring بلاده ⟨blAdh⟩ for *blādu* 'his country'. On the other hand, the writing of Tunisian Arabic as an expression of Tunisian national identity—distinct from Islamic pan-Arab identities—may lead writers to hew closer to the vernacular pronunciation بلادو ⟨blAdw⟩, as seen in these two forum posts:

| A | B |
|---|---|
| و علاش في بلاده ما يعيشش | الي يسرق بلادو و يهرب يتسمى راجل |
| ⟨w ʕlAʃ fy **blAdh** mA yʕyʃʃ⟩ | ⟨Aly ysrq **blAdw** w yhrb ytsmY rAjl⟩ |
| *wa ʕlɛʃ fi **bla:d-u** ma yʕi:ʃ-ɛʃ* | *illi yisraq **bla:d-u** w yohrob yɛtsɛmma ra:jil* |
| and why in **country-his** NEG he_lives-NEG | who he_robs **country-his** and he_flees he_is_called man |
| And why doesn't he live in his country? | Someone who robs his country and runs away, can you call him a man? |

Here we see two sentences that are unambiguously vernacular, but with different spellings of *blādu*: in A it is written in the Standard Arabic way ⟨blAdh بلاده⟩ whereas in B it reflects the Tunisian pronunciation ⟨blAdw بلادو⟩. There are other orthographic choices made here, such as to write the conjunction *wa* ⟨w و⟩ as a separate word (which both authors do, contrary to Standard Arabic norms), the representation of vowel lengthening in words like *ra:jil* ⟨rAjl راجل⟩, and whether to write the negator *ma* ⟨mA ما⟩ as separate word, as in Standard Arabic, or connected to the verb since it forms a single phonological word. In addition to spelling and word segmentation, writers have script options, such as including diacritics or using the distinctively Tunisian letter ⟨ڤ⟩ in words like *mərgɛ:z* ⟨mrgAz مرڤاز⟩ 'merguez'.

While the orthographic properties of written vernacular have been studied for some other Arabic varieties like Egyptian and Moroccan (e.g. Zack 2001; Caubet 2017; Miller 2017; Mejdell; Hoogland 2013), all have been small qualitative studies and there has been no research on Tunisian. For this study, I compiled a list of the most common variable orthographic features in Tunisian Arabic and analyzed their frequency in a corpus of 15 works of print fiction and translation (2013–2021) and a 64,000-word corpus of Tunisian Arabic forum posts (2010 and 2020). Through analysis of variant frequencies by author and genre, this study explores how Tunisians writing in *dārija* make orthographic choices to collectively position themselves in relation to Standard Arabic. In addition, it examines the patterns of spelling variability between authors and genres and evaluates the extent to which Tunisian Arabic is (and isn't) showing signs of orthographic conventionalization.

The results show that the forum writers display a great deal of variability in spelling, and that this variability has not decreased in the past decade. The forum writers were unlikely to use the letter

⟨ڤ g⟩, which is unsurprising, given the extra effort it requires to type. Interestingly, when they did use it, it was often to mark the writer's regional accent, e.g. ⟨gult قلت⟩ 'I said' rather than the prestige form ⟨qult قلت⟩. Although there was great variability between writers on the forum, there was not much internal variation: writers had preferred spellings that they used almost exclusively. For example, in words like *m-fhɛmt-ɛf* 'I didn't understand', writers were split almost evenly over whether to write the negator *ma* attached to the following word ⟨mAfhmtʃ مافهمتش or mfhmtʃ مفهمتش⟩ or to leave it separate as in Standard Arabic ⟨mA fhmtʃ ما فهمتش⟩. Whichever form each writer preferred, however, they were consistent, using that form more than 98% of the time. The print writers were also internally consistent. They also showed much less variability between authors, compared to forum writers, likely reflecting the fact that forum writers outnumbered print writers by an order of magnitude, providing much more opportunity for variation. On the other hand, the internal consistency of print writers was slightly less than forum writers, certainly because the print authors' texts were much longer.

In the choice between Standard-like versus phonetic forms, the print authors generally took a middle path. While they clearly preferred some phonetic features, such as the ⟨w و⟩ suffix in words like *bla:du*, they largely preserved etymological information, e.g., maintaining the full form of the definite article ⟨Al ال⟩ even when it would be phonetically reduced. Although the overall level of innovative spellings was similar for the print and forum writers, there were a few spellings favored by forum writers that were eschewed by novel writers, and vice versa. *All* of the novel authors, significantly, include the letter ⟨ڤ g⟩ in their texts. These, then, have a markedly Tunisian appearance which is nonetheless easily recognizable as Arabic. These results suggest that authors are constructing a Tunisian identity that is distinct but nonetheless remains connected to the supranational Arab identity.

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## The Vagueness Functions of the Marker *bita:ʕ* in Egyptian Arabic

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The present discourse analysis study explores the vague usage of *bita:ʕ, bita:ʕa,* and *bitu:ʕ* in Egyptian Arabic in light of the vagueness theory. Specifically, it examines the intentional and unintentional uses of the vagueness functions focusing on the interactional and communicative roles in daily speech. To my knowledge, this is the first study that investigates the markers *bita:ʕ, bita:ʕa,* and *bitu:ʕ,* revealing the reasons for their vague uses in Egyptian Arabic. Thus, this study adds to the body of the colloquial Arabic literature discourse analysis, specifically the Egyptian dialect and offers future insight for scholarly research. Vague terms and expressions are widespread in spoken discourse and can be used deliberately and effectively to perform various social and interactive functions, such as to avoid sounding offensive, withhold information, replace a forgetting word, and make derogatory remarks (e.g., Channell, 1994; Jucker et al., 2003; and Martinez & Pertejo, 2015). Different scholars classify vague language differently. Channell (1994) groups vague language into: 1) vague additives, e.g., *around;* 2) vague implicatures, such as approximators and vague quantifiers*;* 3) vague placeholders, such as *thingy* and *thingummy*; and 4) tags, e.g., *and things* and or *something.* Carter & McCarthy (2006) divide vague language into two categories: approximation, such as *around, so* and vague expressions, e.g., *kind of* or *everything*. As for Jucker et al. (2003), they group vague language into three categories 1) vague entities such as names and places; 2) vague categories including downtoners, approximators, and vague words, e.g., *thing*; and 3) vague adverbs or phrases such as *and like that* or *and that stuff*.

The data employed in this study are from the Corpus Al-Logha Al-Musriya, corpus of Egyptian Arabic, (CALM) that includes over a million words from (67) movies, (67) television programs, and social media communication (online blogs). The selected movies and television programs are widespread among Egyptian audiences and most of them are released from the year

of 2000 and later, with a few transcripts from the 20th century. The data extracted from CALM is analyzed using a functional corpus-based software, WordSmith and ANTCONC, to find word frequency, collocations, patterns, and functions of the marker *bita:ʕ*. The results of the examined corpus show that Egyptian speakers use *bita:ʕ* and its form for intentional and unintentional vagueness in interactions. Different from the initially hypothesized supposition that vagueness markers of *bita:ʕ, bita:ʕa,* and *bitu:ʕ* would primarily mark unintentional vagueness (forgetting an exact word or filling a lexical gap in a conversation), the most common vagueness function observed was intentional vagueness reaching a total of 100 occurrences. Furthermore, the unintentional function of the vagueness markers has more subtypes than the intentional function, such as approximation, euphemism, exclusion, disgust, and avoidance. The masculine marker *bita:ʕ* shows more frequent usages as opposed to the feminine and plural vagueness markers *bita:ʕa* and *bitu:ʕ,* respectively. The plural vagueness marker was exclusively used to denote the unintentional vagueness function in one instance.

(1) movie corpus example: expressing unintentional vagueness (forgetting)

| *mana:l:* | *huwa* | *il-bita:ʕ* | *da* | *bij:ɣani* | *amr* | *diab* | *wi-keda?* |
|---|---|---|---|---|---|---|---|
| manal: | Q | the-VM.M | this.M | sing.M.S | PR | PR | and-so.forth |

Manal: Does this thing play Amr Diab and so forth?

(2) movie corpus example: expressing intentional vagueness (disgust)

| *ana* | *miʃ* | *ha-ʃj:l* | *il-bita:ʕa* | *di.* |
|---|---|---|---|---|
| I | NG | FUT-carry.1S | the-VM.F | this.F |

I will not carry this thing.

**Keywords**: corpus, vagueness marker, pragmatic function, collocation, intentional vagueness, unintentional vagueness

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# Doubling unconditionals in Arabic

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**Background** Unconditionals (UnC; Zaefferer 1990; Rawlins 2013) and more particularly constituent UnC, illustrated in (1), consist of what we call the antecedent (clause), indicated by gray, and the consequent (clause), whereby the antecedent contains a wh-word modified by the ever-morpheme (*ḥayṯu-mā* 'wherever'; bold), which is optionally resumed by a pronoun in the consequent (*-hi*). We follow Rawlins (2013) and assume that UnCs involve universal quantification of a set of conditionals, where the set semantics, which also underlies questions, stems from the lexical semantics of wh-words. The UnC in (1) is thus true if all the following propositions are true: {if you go to $x1$, you should abide at $x1$; if you go to $x2$, you should abide at $x2$; …}. For a recent alternative analysis, see Szabolcsi (2019).

(1) Wa-**ḥayṯu-mā** daxal-tum bayt-an fa-ʔaqīm-ū fī-hi ʔilā ʔan ta-rḥal-ū
and-where-ma enter.pf-2pl house-acc so-remain.imp-2pl in-3sg until sbor 2-depart.ipf-pl
'In what place soever ye enter into a house, there abide till ye depart from that place.'
(Standard Arabic; Haspelmath 1997:137)

**Doubling unconditionals** (DUnC) involve apparent verb doubling in the antecedent (2). We have identified DUnCs in several Arabic varieties, including Syrian, Egyptian, or Algerian Arabic and provide – to the best of our knowledge – the first analysis of these constructions in Arabic. Data in this abstract are from Syrian Arabic.

(2) [FR **Wēn** ma štaġal Yūsuf] yi-štiġil Rahaf raḥ t-nṭur-u.
where ma work.pf.3sg.m Yūsuf 3sg.m-work.ipf Rahaf fut 3sg.f-wait.ipf-3sg.m.obj
'Wherever Yūsuf works, Rahaf will wait for him.'

We follow Šimík (2020), who proposed, based on evidence from Slavic and Romance, that what is expressed by a plain wh-word in standard UnCs is expressed by a free relative (FR; van Riemsdijk 2017) in DUnCs, as indicated by the bracketing in (2); the linearly preceding predication, introduced by the wh-word, is thus subordinated to the linearly following main predicate (*yištiġil*). In order for the FR to give rise to a set denotation required for the above-mentioned UnC semantics, it must be focused (like interrogative wh-words, also focusing gives rise to a set of denotations; Rooth 1985). We propose that the focus on the FR in (2) is encoded by the preverbal placement (aka focus fronting, a productive process in Arabic; Ouhalla 1997). An analogous situation obtains in Calabrian (3) (Gullí 2003); in contrast, focus-final languages like Czech realize the FR clause-finally (4) (Šimík 2020).

(3) [FR **Aundi** vaju] vaju, u viju.
where goes goes him see
'Wherever he goes, I see him.'

(4) Ať jde [FR **kam** jde], vidím ho.
prt goes where goes see.1sg him
'Wherever he goes, I see him.'

**Predictions** The main predicate in the DUnC antecedent is expected to formally reflect the association with a (silent) operator which derives the unconditional semantics. In Syrian Arabic, the main predicate of the antecedent is the linearly last one. And indeed, this predicate turns out to be highly restricted in terms of its TAM morphology; only the bare imperfect, which functionally

corresponds to dependent/subjunctive moods in other languages, is a licit option for that predicate in Syrian Arabic (5) (cf. Quer 1998 for the situation in Spanish).

(5) [FR **Emta** ma bi-yi-zūr-ha Yūsuf] (* bi-) yi-zūr-ha, bi-t-sawwi qahwe.
when ma hab-3sg.m-visit.ipf-3sg.f.obj Yūsuf hab 3sg.m-visit.ipf-3sg.f.obj hab-3sg.f-make.ipf coffee
'Whenever Yūsuf comes over for a visit, she makes coffee.'

If DUnCs involve FRs in their antecedents, we expect the wh-structures in DUnCs to function as FRs independently, i.e. outside of the context of DUnCs. This seems to be borne out, as showed in (6), even though we have noted individual variation on this datapoint. Analogous data (to be provided) are available for other wh-sorts, e.g. 'who', 'what', 'where', etc.

(6) Rahaf bi-t-sawwi qahwe [FR **emta** (ma) bi-y-zūr-ha Yūsuf].
Rahaf hab-3sg.f.make.ipf coffee when ma hab-3sg.m-visit-3sg.f.obj Yūsuf
'Rahaf makes coffee when(ever) Y suf comes over for a visit.'

Finally, the doubled structure in DUnCs is predicted to be a whole clause, not just a verb. Therefore, we expect
obligatory clausal elements such as pronominal clitics to be doubled along with the verb. The verb form *yiktibha* 'he wrote it' in (7) demonstrates that this is borne out.

(7) [FR **Mīn** ma katab ir-risāle] yi-ktib-ha lāzim t-rudd 3alēh
who ma write.pf.3sg.m def-letter 3sg.m-write.ipf-3sg.f.obj necessary 2sg-answer.ipf on.3sg.m
'Whoever wrote that letter, you must answer him.'

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## On the Different Readings of the Focus Particle KAMAN in Hijazi Arabic

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**Introduction.** The paper explores the formal syntactic and semantic properties of *kaman* in Hijazi Arabic (HA henceforth; Afro-Asiatic, Semitic; Saudi Arabia) and argues for an analysis as a focus-sensitive particle with an additive presupposition. This analysis not only accounts for the additive, but also for the repetitive and scalar readings the particle receives once the alternatives involved in its interpretation are taken into consideration.

**Data.** The focus-sensitive particle *kaman* in HA is at first sight ambiguous between an additive, a repetitive and a scalar reading, depending on the focus-marking and the context it appears in. A relevant example is in (1), which translates to additive 'also' in Context A, to scalar 'even' in context S, and to repetitive 'again' in context R.

Context A: In preparation for tonight's family gathering, Sarah set the table, and…

Context S: Sarah doesn't help much around the house, and her parents have come to expect that she doesn't. But today, she wanted to do something nice for them on their anniversary, so she not only cleaned her room and set the table…

Context R: On Monday, Sarah cooked a meal for her parents. The next day, Sarah's parents walk into the house and find dinner served on the table. Sarah's father, correctly assuming that it was Sarah's doing, is pleasantly surprised.

(1) سارة كمان طبخت.
*Sarah kaman tabakh-at.*
NAME KAMAN cook.PFV.3SG-FEM
Reading **A**: 'Sarah also cooked$_F$.'
Reading **S**: 'Sarah even cooked$_F$.'
Reading **R**: 'Sarah cooked again$_F$.'

Note that focus marking, realised by pitch accent in HA (Alzaidi et al. 2019), is on the verb for A and S, but on *kaman* for R, as indicated in the translations in (1), even though the alternatives under consideration do not appear to be alternatives to the adverb itself.

**Analysis.** Building on work by Rooth (1992), Beaver & Clark (2008), and Beck (2016) for English, we propose an analysis of *kaman* as a propositional operator that associates with a contextually salient subset of the alternatives generated by focus, which we assume are evaluated by a dedicated operator, the squiggle operator. *Kaman* triggers the presupposition that there is at least one alternative in this set C that is different from the prejacent (= that Sarah cooked in (1) above) and is true in the evaluation situation s. In contexts of the type of A, like (4-a), this presupposition is met and gives rise to the baseline, additive interpretation.

(2) $[\![ \textit{kaman} ]\!] = [\lambda s{:}s{\in}D_s.\ [\lambda C{:}C{\in}D_{\langle\langle s,t\rangle,t\rangle}.\ [\lambda p{:}p{\in}D_{\langle s,t\rangle} \& \exists q[q{\in}C \ \&\ q{\neq}p \ \&\ q(s){=}1].\ p(s){=}1]]]$

(3) $[\ \text{KAMAN}_C\ [\ {\sim}_C\ [\ \text{Sarah cooked}_F\ ]\ ]\ ]$

(4) a. ALT-A = {that S set the table, that S cooked}
b. ALT-S = {that S set the table, that S cleaned her room, that S cooked}
$\forall p[p \in ALT \ \& \ p \neq (\text{that S cooked a meal}) \rightarrow p >_{EXPECTATION} (\text{that S cooked a meal})]$
c. ALT-R = {that S cooked yesterday, that S cooked today}

In contexts of the type of S, which not only establish a set of salient alternatives but additionally impose a ranking on these alternatives, such as the expectation-based ordering in (4-b), we perceive the interpretation of *kaman* as scalar. In contexts like R, which establish a set of temporal alternatives, (4-c), we perceive *kaman* as repetitive. We speculate that focus-marking is realised on *kaman* in this case in the absence of a morphologically overt temporal expression, an option that interestingly is not available in English (but see Krifka 1999).

**Concluding Remarks.** The unified analysis of HA *kaman* proposed above makes a contribution to the small but growing field of Arabic formal semantics, but also offers interesting perspectives for future research relating to microvariation in the syntax and semantics of focus particles across the different varieties of Arabic and cross-linguistically (König 1991).

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## The Saudi Arabic 'dude': The Development of Meanings and Functions of /jaxi/

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Previous work has shown that address terms often develop a wide variety of semantic meanings and pragmatic functions which transcend their typical function of "identifying the addressee of an utterance" (Heyd, 2014: 271). This study builds on the existing literature by investigating a Saudi Arabic address term that seems to have developed new meanings and functions similar to several address terms in different languages (e.g., *güey* in Spanish; Bucholtz, 2009; *dude* in English; Kiesling, 2004). The address term under investigation is ياخي /jaxi/, which literally translates to 'brother' and is traditionally used to address a male sibling.

The presentation reports on an ongoing quantitative and qualitative investigation of the development of /jaxi/. Data come from a self-report survey of 185 native Saudi Arabic speakers on the use of /jaxi/ across addressee types (e.g. male and female intimate partners, same-age friends, parents) and of its meanings in interaction as well as selected Twitter posts in which /jaxi/ is used.

The results demonstrate that /jaxi/ indeed has developed new meanings and functions, as it is now used by men and women to address both men and women, as well as a range of addressees who are not siblings. Results also suggest different usage patterns by men when addressing other men vs. women but no gender-based usage difference among women, who indicate frequent use with both male and female addressees. In addition, similar to English *dude*, /jaxi/ is used with equals and not in hierarchical relationships (e.g., parents, bosses) and seems to

index closeness but not intimacy, especially for male participants – i.e. a stance of 'cool solidarity' (Kiesling, 2004). Responses to a series of open-ended questions and a number of Twitter posts highlight an array of developing functions of /jaxi/ in interaction, ranging from indicating/forging closeness to expressing anger and frustration.

This study substantiates the already existing literature on the development of address terms by shedding light on an address term that has not been investigated before, including intriguingly parallel types of developments across languages. It further augments our understandings of indexicality and the notion of indexical field (Eckert, 2008) and contributes to the literature in offering quantitative investigation of a sociolinguistic feature of a language variety that has received comparatively minimal attention in the sociolinguistic literature.

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## The structural and social distribution of the negative particles *la(a)ʔ*, *laa*, and *w(a)-laa* in Syrian Arabic


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This study investigates the variable structural and social distribution of the negative particles *la(a)ʔ*, *laa*, and *w(a)-laa* and their variants in the colloquial Syrian Arabic (SA) speech of 72 speakers from the village of Oyoun Al-Wadi, Syria. It analyzes the frequency of use of each negative particle and its variants according to its functions and/or the following structural context and whether this frequency is affected by sex and age, seeking to answer the following questions:

1. What are the functions and/or structural contexts that trigger the use of the negative particles under investigation and how frequent each negator with each one of these functions and/or contexts?
2. Is there correlation between each negator and certain functions and/or structural contexts?
3. Are there differences between children and adults in their implementation of these functions and/or structural contexts regarding each negator?
4. Are there sex and/or age differences in the use of these negators?

The study will show that negation in SA is highly complex and variable and that all three negators have to be treated separately because they are not inter-dependent and all of them can function on their own, including *w(a)-laa*, and they have different functions and/or structural contexts.

The study analyzes 1972 tokens gleaned from the naturally occurring speech of 72 speakers: 50 children ages 6-18 and 22 adults ages 29-57 with equal gender distribution in each generation and equal numbers of children and males and females in each of four age groups 6-8, 9-11, 12-14, and 15-18. Each negative particle, including phonological variants, is coded according to its function and/or the following structural context in the speech of each speaker. Various quantitative analyses are performed to examine the effects of sex and age on the use of these negators and to determine if there is correlation between the function and/or following structural context and the frequency of a negator.

*la(a)ʔ* is used to express eight functions: answering yes/no/tag questions, negating propositions, contrastive negation, agreement, emphatic negation, absolute prohibition, repair, and interjection. What sets *la(a)ʔ* apart from *laa* is that *laa* is used in addition to seven out of the previous functions, except absolute negation, to express verbal prohibition; negate multiple parts of speech (verb, noun, preposition phrase, adverb, demonstrative, adjective, pseudo-verb); form the negative copula *laanaa* and its variants and impersonal negative copula *laaħee*; and in classical expressions, e.g. *laa budd/bidd*. (Impersonal) negative copula are usually formed by the negator *maa* in SA, which adds another layer of complexity to the data, which is beyond the scope of this paper. Interestingly *w(a)-laa*, which is known as negative coordinator, can stand as a negator on its own. It does not have functions like *la(a)ʔ* and *laa*. It can be followed by various parts of speech (noun, verb, prepositional phrase, pseudo-verb, passive participle, demonstrative, adjective, pronoun, quantifier, active participle) and be part of (impersonal) negative copulas. It can also perform verb prohibition. *la(a)ʔ* is used most frequently in negating propositions and yes/no/tag questions. It occurs in its elongated form *laaʔ* almost categorically among children and in its short form *laʔ* almost categorically among adults. The forms *laʔʔa* and *laʔa* occur a few times in the data. *laa* is much less frequent than *la(a)ʔ* and is used most frequently for verb prohibition, followed by negating yes/no/tag questions and propositions. *w(a)-laa* is also lower in frequency than the other two negators and occurs most frequently before nouns, verbs, and PPs.

Only age emerged as statistically significant among children regarding the use of *la(a)ʔ* with use decreasing with decrease in age. Gender emerged as statistically significant among adults with men using fewer *laʔ* than women. When combining the data of children and adults, age and gender merged as statistically significant with males using less *la(a)ʔ* than females and children using more than adults. In the combined data, age emerged as statistically significant regarding the use of *laa* and *w(a)-laa* with children showing lower use of *laa* and *w(a)-laa* than adults.

These findings partially reflect the complexity and great variability of the negative system in SA both linguistically and socially. They show that certain functions/contexts favor the occurrence of certain negators more frequently than other functions/contexts. Observing the differences in functions/contexts of these three negators and their ability to operate on their own provide evidence that *laa* is a different negator from *la(a)ʔ* in SA, whereas both fall under the umbrella of *laa* in Modern Standard Arabic. Moreover, *w(a)-laa* should not be viewed as only a coordinating negator, as it can operate on its own. The findings also show generational differences regarding the use of *la(a)ʔ*, *laa* and *w(a)-laa*, while there is gender difference only regarding the use of *la(a)ʔ*. Although this study does not deal specifically with phonological variation, there is an evident shift towards the use of the elongated *laaʔ* among children.

## On Complementizer Agreement and Clitic Doubling in Arabic

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Various approaches to complementizer agreement (CA) argue that CA is the result of clitic doubling (CD), (e.g., Van Craenenbroeck & Van Koppen 2008, van Alem 2020), as one view to CD involves an Agree-based approach, as one view to CD involves a purely Agree-based approach, in which clitic results from Agree with a functional head (e.g., Sportiche 1996, Angelopoulos 2019). This paper provides an initial evaluation of the view that equates CA and CD on the basis of Arabic varieties, which have both phenomena. We demonstrate that CA exhibits various distinct behaviors from CD and CLLD although the morpheme on the

complementizer is morphophonologically a weak clitic in CA, (1). Various challenges need to be addressed to reduce CA to CD (or vice versa), at least in Arabic.

(1) fakkar ʔinn-a hiyye raaħ-it.
thought.3sg.m that-3f.sg she went-3f.sg
'He thought that she left. (Lebanese Arabic, LA)

Morphophonologically, the morpheme on C head, as well as the indexer in the doubling has the clitic form, unlike the subject-verb agreement, realized as an affix (cf. (1) and (2)).

(2) kariim sheef- a la-zeena /la- ʔila
K saw.3m-3f.sg to-Z /to-her
'Karim saw Zeena/her.' (LA)

Another commonality is that both First Conjunct Agreement (FCA, (3)) and First Conjunct Doubling (FCD) are possible, (4)), including for collective predicates.[1]

(3) fakkar {ʔinn-un / ??inn-a / ʔinno } [hiyye w huwwe] raaħ-o.
thought.3sg.m {fthat-pl /?that-3sg.f / that.3sg.mg } [she.f and he]pl went-3pl
'He thought that she and he left.'

(4) a. l-mudiira dʒamaʕ-it{-on/-a} [hiyye w iyyah] mbeerih.
the-principal.f gathered-3sg.f-3pl/-3sg.f [herand him] yesterday
'The principal gathered her and him yesterday.'

b. Samir zar{-na/-ni} [la-ʔili w (la-)zeena] mbeerih.
S visited.3m-1pl/-1sg [to-me and to-Z] yesterday
'Samir visited me and Zeena yesterday.'

In this regard, they both behave like subject-verb agreement, (12)), which also has FCA (not shown here). Importantly, the Coordinate Structure Constraint (CSC) holds in Arabic (both for head- and phrasal-movt) in non-doubling, as well as doubling configurations. On the basis of these two properties, CD has received a pure Agree-based account, and CA sometimes is reduced to CD.

CD differs from CA and subject-verb agreement (SVA) in several respects. **(i) Definiteness contrast.** While (negative) quantified NPs can be subjects which show SVA and CA, (5), they cannot be CD-ed, (6).

(5) qal {le / le-na} habbe mara ma-cat-te.
said{that.Ø that-3sg.f} any woman neg-came-3sg.f
'He said that no woman arrived.' (Sason Arabic, SA)

(6) *ma-qul-tu-lla şa-habbe mara xabar.
neg-said-1sg-her to-any woman news
'I didn't tell any woman the news.' (SA)

**(ii) Possessors.** Although CD with possessors is possible, the possessor cannot trigger subject-verb agreement or CA. **(iii) Clitic and the doubled DP form a unit**. The clitic and doubled DP (or D) are part of the same unit, i.e., form a constituent. It is not possible to separate the clitic and the doubled element, or target a subpart of the complex. No such constituency exists between the indexer and the DP in CA, or SVA. **(iv)** CA exhibits Anaphor Agreement Effect, in which an anaphoric object is focus-fronted, and agreement with it is disallowed (unlike non-anaphoric objects).

[1] Aoun et al. 1994 reports that CA is available only with pronominal subjects in LA, but thisrestriction holds only for some speakers. Similarly, FCA is indeed possible with right setup of examples.

This preliminary investigation demonstrates that while CA and CD share certain properties, they also different in some other respects. Thus a uniform account needs to handle the differences.

## Complementizer Agreement in Tunisian Arabic is Subject Clitic Doubling

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**Background:** Multiple varieties of Arabic have complementizer agreement (CA), which involves a complementizer agreeing with an argument in the embedded clause, as found in Najdi (1), Sason (2) and Tunisian (3), among others. In (1)–(3), each complementizer bears a morpheme agreeing with the subject of the embedded clause, which is optional, as indicated by the parentheses.

(1) COMPLEMENTIZER AGREEMENT IN NAJDI ARABIC (Lewis 2013:43)
ta-sgad **inna-(ha**$_i$**)** hi$_i$ ta-sawwi: al-akil
2SG-mean.IPFV that-3SG.FEM she 3SG.FEM-make.IPFV DEF-food
'You mean that she made the food.'

(2) COMPLEMENTIZER AGREEMENT IN SASON ARABIC (Akkuş 2021:1)
qul-tu **le-(nen**$_i$**)** zɣar$_i$ kan-o kı-y-ayl-o anzarut
said-1SG that-3PL children aux.PST-3PL PST-3-eat-PL corn
'I said that the children were eating the corn.'

(3) COMPLEMENTIZER AGREEMENT IN TUNISIAN ARABIC
tɣaʃʃəʃ **ʕlaxa:tˤər(-ha**$_i$**)** Samira$_i$ wəsˤlət. mmaxxər
be_upset.PFV.3MSG because-3FSG Samira arrive.PFV.3FSG late
'He got upset because Samira arrived late.'

In previous scholarship on CA in Arabic (Lewis 2013; Jarrah 2019; Akkuş 2021), the phenomenon has been analyzed as a type of true φ-agreement based on arguments that the clitics *-ha* and *-nen* in (1) and (2) respectively are agreement morphemes.

**Claims:** In this paper, I investigate CA in Tunisian, and I claim that as opposed to dialects like Najdi and Sason, Tunisian CA is a true instance of subject clitic doubling. This conclusion is based on two main pieces of evidence. The first one is the morpho-syntactic status of the clitics used in CA: According to syntactic tests, clitics such as *-ha* in (3) are true pronouns and not agreement morphemes, and as such, the type of phenomenon at hand cannot be easily captured by a simple agreement analysis of the type offered by Lewis (2013) and Akkuş (2021) for Arabic and van Koppen (2017) for Germanic. The second and most important piece of evidence concerns the behavior of CA compared to instances of clitic doubling elsewhere in the language. In fact, object clitic doubling in Tunisian obeys certain restrictions, including for example the fact that only specific DPs may be doubled. These restrictions are found in the CA data, where only certain kinds of subjects can participate in this phenomenon. From there, I show that CA does not constitute true φ-agreement but optional clitic doubling. Such a treatment of CA in any Arabic variety has not been proposed in the literature, and has even been argued against by Akkuş (2021).

**Analysis:** I offer a clitic doubling analysis of CA in Tunisian where $C^0$ bears an optional probe for φ-features, which probes for the closest goal (usually the subject in [Spec, TP]). If that subject has the structure of a big-DP with the clitic generated alongside the argument (Uriagereka 1995), then the clitic moves to C. This analysis accounts for the optionality of CA and the wide range of observed data.

**Implications:** CA data in Arabic is an excellent empirical domain for the investigation of the differences between instances of clitic doubling and agreement, which has been an important theoretical debate in recent years (Nevins 2011; Baker and Kramer 2018; Yuan 2021). Thus, this paper shows the importance of Arabic dialects for theoretical syntax. I also demonstrate that the instances of CA seen in (1)–(3), while superficially similar, are the realizations of different syntactic structures in each dialect: The same set of clitics used for φ-exponence on a complementizer cannot actually be analyzed in the same way for all three dialects. This is one of many cases where the analysis put forward for one dialect of Arabic does not account for the data of another, further showing the importance of the independent study of each variety of Arabic. Finally, this study puts the spotlight on Tunisian Arabic, whose syntax has not been investigated as much as other dialects, providing new insights for the Arabic dialectologist and the theoretical syntactician alike.

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## On the Grammaticalization of *ʕaad* in Jordanian Arabic


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There has recently been a growing interest in the study of grammaticalization in Arabic linguistics, though this linguistic phenomenon is generally still understudied. Most previous research has focused on the status of the pronominal copula, more precisely, the function of third person pronouns as copulas in Arabic equational sentences (see, for example, Eid 1983, 1991; Benmamoun 2000; Aoun, Benmamoun, and Choueiri 2010; Choueiri 2016; Alharbi 2017). Yet

other areas of grammaticalization have received much less attention; for instance, a few studies have investigated other aspects of grammaticalization in colloquial Arabic, such as the grammaticalization of volitional verbs and nouns in Emirati Arabic into future markers and reflexive pronoun/possessive exponent, respectively (Jarad 2017), of active participles derived from the verb *jaqʕud* '3P.M.SG.sit' into copulas in various Arabic dialects (Camilleri and Sadler 2019), of the third person masculine pronoun *huu* 'he' and the negation particle *maa* 'not' into discourse markers in Jordanian Arabic (Jaradat 2021), and finally the grammaticalization of prepositions and subordinators in different types of Arabic constructions (Esseesy 2010).

Another interesting grammaticalization phenomenon, which, to the best of my knowledge, has not been examined before and which adds to the existing literature, concerns the verb *ʕaad* 'returned/repeated.3P.M.SG' in Jordanian Arabic (henceforth, JA) which is the syncretic past tense form of two present tense verbs: *jʕuud* '3P.M.SG.return' and *jʕiid* '3P.M.SG.repeat'. This syncretic form *ʕaad*, as I will show in this study, has been grammaticalized into three functional elements: repetitive aspect, evidential mood, and evaluative mood particles, respectively observed in (1)–(3) below.

(1) **ʕaad** ʤiib li-ktaab.
REP.ASP.PRT IMP.bring.2P.M.SG the-book

'Again, (you.M.SG) bring the book.'

(2) **ʕaad** el-walad ʤaab li-ktaab.
evd.mood.prt the-boy brought the-book
'Evidently, the boy brought the book.'

(3) **ʕaad** el-walad kwajjis.
EVL.MOOD.PRT the-boy well-behaved
'For your reference, (I believe) the boy is well behaved.'

Additionally, all of the above three forms of the grammaticalized *ʕaad* also serve a pragmatic function linked to the speaker's viewpoint on the subject matter. Accordingly, this study will explore the syntactically hierarchical positions of *ʕaad,* including its interaction with other constituents in the clause; more particularly, drawing on empirical data from JA as well as on "the universal hierarchy of clausal functional projections" (Cinque 1999: 106), it will be argued that the aspectual, the evidential, and the evaluative forms of *ʕaad* are syntactically the heads of $Asp_{repetitive(I)}$ (repetitive aspect) Phrase, $Mood_{evidential}$ Phrase, and $Mood_{evaluative}$ Phrase, respectively. Besides investigating its syntactic distribution, this paper will also shed light on the synchronic variation/shift in the meaning of *ʕaad* as well as its pragmatic functions as a result of grammaticalization.

**On the pre-history of pre-verbal imperfect markers in Arabic**

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Many varieties of Arabic are well known for having one or more pre-verbal imperfect markers. While some, such as the Egyptian future prefix *ħa-* or *ha-*, have a clearly delineated meaning, many are less amenable to a simple definition. We concentrate on two of these, Iraqi *da-* and Egyptian *ʕa-*/ *ʕam-*/ *ʕamm-a* (conventionally referred to as "ʕam-"). These have the following five attributes in common:

- occur only before imperfect verbs
- but only mark a small proportion of imperfect verbs
- are bound prefixes (or clitics)
- are grammatically unrestricted: occur in main, dependent clauses, with all persons, etc.
- are discourse highlighters (procedural, not propositional component of language)

Beginning with Baghdadi *da-*, it has been assumed that *da-* is functionally equivalent to imperfect verb markers as in other dialects, for example *b-* (Cairene and Syrian Arabic) or *ka-* (Moroccan) (Clarity et al. 1964: 151, Erwin 1963: 139, Holes 2016: 304 for Bahrain). Erwin (1963: 139) defines it as a "continuing, repeated or habitual action". However, a corpus-based study shows decisive differences to grammaticized prefixes. While distributionally *da-* is virtually unrestricted, an investigation of an extensive oral corpus of 56,244 words from seven interviews with Baghdadi native speakers yielded a total of only 128 *da-* tokens (.2%), confirming Blanc (1964: 116) that the imperfect "occurs more commonly without /da/". We show that *da-* is best thought of as a pragmatic marker, focusing the highlight of an entire event or situation. In the following, for instance, the episode begins with a general statement about how school-age children lack concentration (*ayy ṭifil yilʕab…*), then introduces the speaker's own daughter (hiyya ʃaaṭra…) and then shifts to specifically how the daughter behaves with her own siblings when doing homework, the shift marked by *da-yliʕbuun*. The passage has six imperfect verbs (italics), only one of them is marked by *da-* (bold):

> ayy ṭifil *yilʕab* ʃii *tbaawiʕ* ʕalee raʔasan / … hiyya ʃaaṭra w *tifham* uw *tiqra* bass innu haaða ʃ-ʃii / ħatta bi-l-beet yaʕni iða *tʃuuf* axwaanha ***da-yliʕbuun***… (example from our corpus)
>
> "When any child plays something, she immediately looks at him/ … She [speaker's daughter] is diligent and understands and reads, but that's how it is. Even at home when she sees her brothers playing…"

The Egyptian pre-verbal marker *ʕam-* occurs in the southern Upper Egypt beginning in southern Middle Egyptian area, the oases, and in much of the Delta area. Behnstedt and Woidich (1985: 219-222) liken it to the prefix *b-*, but here, as well, the main similarity is simply that it occurs pre-imperfect verb. In a 7,000-word sample from the BʕeeriI dialect spoken on the West Bank of Luxor in Upper Egypt (B-W's corpus which we use is divided into Egyptian dialect areas), there are only 73 tokens of *ʕam-* (1% of sub-corpus). The B-W corpus consists of individual stories, and in all of them non-*ʕam-* imperfects outnumber or far outnumber *ʕam-*imperfects. As with *da-*, the low degree of usage is explained by the fact that the primary function of *ʕam-* is pragmatic. In general, the particle correlates two related propositions in the form: A vs. *ʕam-*B. The *ʕam-*marked verb B identifies the proposition as completing, enhancing, and concluding the idea in the contiguous A.

For instance, in the following the speaker justifies why one would buy a whole sheep: if you buy by the kilo you get as much bones as meat, *so therefore a logical conclusion is* (= *ʕa-*) a person just goes out and brings a small sheep. The passage has four imperfect verbs (italics), only one of them marked by *ʕam-* (allomorph *ʕa-* bold).

> … *tiddi* ʕaḍmaaya walla laḥama ma-*tiʔrifš*, maʕa kida lwaaḥid ***ʕa-y-ruuḥ*** *iğiibla* xrayyif (Behnstedt and Woidich: Texte aus Koom Loola (BʕeeriI): 244)
>
> "You don't know whether you get bones or meat, so for that reason a person just goes and buys himself
> a small sheep."

We show that both *da-* and *ʕam-* have a pragmatic basis, but their pragmatic interpretations are different.

- *Da-* is "global". It typically focusses a highpoint in an entire episode.
- *ʕam-* is "local" linking contiguous or nearly adjacent sentences.

This perhaps explains why *ʕam-* overall has a higher text frequency. *ʕam-* may occur initially in an episode, medially or finally. *Da-* on the other hand typically occurs medially, in fewer cases finally, because the episode needs to be developed before *da-* is used.

This paper describes the syntax-pragmatics of *da-* and *ʕam-*, highlighting their pragmatic basis and identifying relevant semantico-pragmatic sub-categories. Then we briefly argue that these particles belong historically to at least an early-diasporic era of innovation. *ʕam-* for instance, is argued to have the same source as Levantine *ʕam-* 'immediate present, particle of actuality' (Cowell 1964: 320) and Yemeni *ʕa-* 'future' (Watson 1993: 83); Baghdadi *da-* has the same historical source as Baḥarna *da-*. Geographical extension implies historical depth. We conclude by suggesting that all pre-verbal particles in spoken Arabic have wholly or partly a pragmatic source. Some, such as *ʕam-* and *da-*, never grammaticized beyond a loose pragmatic "phase", while others, such as *b-*, did, a point which will be briefly elaborated upon.

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## Representation of verbal paradigms by Egyptian Arabic speakers: evidence from wazn I vowels

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**Overview.** Recent works on sound wazn I verbs in Egyptian Arabic uncovered probabilistic trends that help predict idiosyncratic vowel choices in the perfect (past-tense; CaCaC / CiCiC) and imperfect (tenseless; -CCaC / -CCiC / -CCuC) forms (Xu 2021a,b). This paper reports an ongoing nonce word experiment which tests Egyptian Arabic speakers' knowledge of these statistical patterns. Preliminary data suggest that speakers generalize specific types of effects and not others. These results have implications for theories of paradigm organization.

**Methods**. In the experiment, subjects hear nonce verbs in either perfect or imperfect form and are asked to supply the other. For both forms, two types of effects on vowel choices are tested: (1) effects of root consonants and (2) effects of vowel correspondence between forms.

50 nonce roots are constructed obeying phonotactic OCP restrictions (McCarthy 1994). Half of these contain a pharyngeal {ħ,ʕ} as the final consonant, while the other half contain only labials and non-emphatic alveolars. Each root combines with the two perfect vowels {a,i} and the three imperfect vowels {a,i,u}, yielding 5 distinct forms. Each subject hears one form for each root.

**Results**. I report preliminary data from 3 participants (50 words each). The tables below compare their responses to lexicon data from Xu (2021a,b) for each type of effects.

One important result is that Egyptian Arabic speakers reliably generalize consonant effects on vowels in the imperfect (preference for [a] with pharyngeals, see (1)). This preference is phonetically motivated, as it reflects the lowering effects of pharyngeals on neighboring vowels (Watson 2002). Interestingly, this effect is not found for the perfect verbs in either the lexicon or experimental data (compare the two rows in (2)), despite the near-identical phonological environments.

With regards to the effect of vowel correspondences, subjects fail to generalize a very salient pattern in the lexicon, namely that the odds of imperfect [u] are much higher with perfect [a] (3). On the other hand, the preference for perfect [a] given an imperfect [u] is displayed by the speakers (4). Current results regarding the distribution of [a] and [i] are more ambiguous. Similar results for the types of effects in (1) and (3) have also been found for Hijazi Arabic (Ahyad 2019).

| (1) | Lexicon | | | Nonce words | | |
|---|---|---|---|---|---|---|
| | Imp-a | Imp-i | Imp-u | Imp-a | Imp-i | Imp-u |
| Lab/Alv | 45% | 40% | 15% | 6% | 94% | 0% |
| Pharyn | 70% | 22% | 8% | 85% | 10% | 5% |

| (2) | Lexicon | | Nonce words | |
|---|---|---|---|---|
| | Perf-a | Perf-i | Perf-a | Perf-i |
| Lab/Alv | 47% | 53% | 79% | 21% |
| Pharyn | 47% | 53% | 64% | 36% |

| (3) | Lexicon | | | Nonce words | | |
|---|---|---|---|---|---|---|
| | Imp-a | Imp-i | Imp-u | Imp-a | Imp-i | Imp-u |
| Perf-a | 42% | 18% | 40% | 58% | 42% | **0%** |
| Perf-i | 55% | 41% | 4% | 42% | 54% | 4% |

| (4) | Lexicon | | Nonce words | |
|---|---|---|---|---|
| | Perf-a | Perf-i | Perf-a | Perf-i |
| Imp-a | 44% | 56% | 71% | 29% |
| Imp-i | 31% | 69% | 55% | 45% |
| Imp-u | 90% | 10% | 90% | 10% |

**Discussion.** While additional data and statistical analysis are needed, the preliminary results support the serial derivation analysis of Egyptian Arabic verbal paradigms proposed by Xu (2021a,b). In this analysis, the imperfect is derived from the consonantal root and the perfect is derived from the imperfect. Vowel correspondences are more reliably generalized in the imperfect-to-perfect direction (4), which is consistent with the proposed derivational relationship between the two forms. Additionally, speakers' behavior with nonce words mirrors the lexicon in that consonants only influence vowel choices in the imperfect (1) but not the perfect (2). Importantly, this analysis adopts lexical representations that separate the consonants and the vowels, which has received independent support from phonological analysis (e.g., McCarthy 1979) and psycholinguistic data (e.g., Boudelaa & Marslen-Wilson 2001). As a result, the absence of consonant effects on the perfect vowels can be explained by syntactic locality constraints (Embick 2010); the consonantal root is embedded and thus inaccessible during the formation of the perfect, which has been argued to occur at higher syntactic nodes than the imperfect (Benmamoun 1999). Contrary to surface-based theories of paradigm organization (e.g., Albright 2002), the Egyptian Arabic data can only be accounted for by adopting abstract representations like the consonantal root.

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**Root and Stem Priming Effects in Word Recognition in Arabic**


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In Arabic nonconcatenative morphology, the status of the abstract consonantal root as a unit of lexical organization and word recognition continues to be controversial. Earlier priming studies generally revealed evidence for root priming effects in different varieties of Arabic, suggesting that the consonantal root morpheme plays an early role during word recognition and is therefore likely to be a unit of word formation and representation (Boudelaa & Marslen-Wilson, 2013; Mahfoudhi, 2007; Ussishkin et al., 2015). However, a few priming experiments showed either no root priming effects (Abu-Rabia & Awwad, 2004) or inconsistent results (Schluter, 2013), bringing into question the morphemic status of the root and indirectly arguing for the saliency of the voweled stem instead. This situation echoes the debate that has characterized the literature on Arabic morphology and Semitic morphology, in general. In this debate, the root-based view has been challenged by the stem/word-based view on both theoretical and empirical grounds (Bat-El, 2003; Benmamoun, 1999; Prunet, 2006; Ratcliffe, 2004), which led some researchers to settle on a compromise model where both the root and the stem may be relevant (Arad, 2005; Idrissi, 2018). To our knowledge, no studies have used priming to test the possible role of the stem in Arabic word recognition (but see Brice (2017) for Hebrew).

We carried out a masked priming experiment using lexical decision to examine whether the root or the stem is more likely to prime lexical access in Standard Arabic. The same target (*ya-ʕtamid* "he approves") appeared in four conditions. In Condition 1 (shared *inflected* stem), it was preceded by an "inflectionally" related prime (*na-ʕtamid* "we approve") with which it shares the whole stem. In Condition 2 (shared *derived* stem), the target was preceded by a "derivationally close" prime with which it shares, in addition to the consonantal root, the same orthographic and phonological form of the stem (*mu-ʕtamid* "approving"). Under the stem-based approach, the prime in this condition could be derived directly from the same stem as in the target (/ʕtamid/ > *ya-ʕtamid* "he approves" and *mu-ʕtamid* "approving"). In Condition 3 (shared root only), the target is preceded by a "derivationally distant" prime whose stem is different but contains the same triconsonantal root (*ʕtimaad* "approval"). We expect these three conditions to allow us to distinguish root priming from stem priming effects, if any. Finally, in Condition 4 (shared phonology), which serves as a phonological control; the target is preceded by a prime with which it shares most of the surface form and from which it differs in at least 1 and at most 2 consonants (prime *yaʕtaqid* "he believes" – target *yaʕtamid*). Forty-five (45) native speakers of Arabic, all university students, participated in the study. We used OpenSesame to run the experiment.

The results revealed a significant main effect of priming in all morphological conditions, $F(3, 132) = 16.2$, $MSE = 936.9$, $p < .001$, $\eta^2 = .27$. However, priming was modulated by the nature (and degree) of morphological relation between the prime and target. The shared stem conditions (Conditions 1 and 2) showed significantly more priming than the shared-root only condition ($p = .027$ and $p < .001$ respectively). Condition 4 showed the least priming as reaction times were much slower compared to Conditions 1 and 2 ($p = 004$ and $p < .001$ respectively) but not as much when compared with Condition 2 ($p > .05$) ).

Our results suggest that while morphology plays an important role in lexical access in Arabic, words sharing the same stem (maximum form-meaning overlap) prime each other more than words sharing the root only (lesser form-meaning overlap). We take our results to be consistent with the compromise model of Arabic morphology and to support some gradience in the roles of the stem and root in word representation and lexical organization in Arabic. The fact that the degree of priming elicited under Condition 3 did not differ significantly from the one obtained under the phonological condition

suggests that prime/target phonological/orthographic overlap is a continuous predictor. We discuss the implications of these results to the theoretical and experimental literature.

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## Bidirectional L2 acquisition of genitive constructions in Arabic and English: A linguistic approach


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In this presentation, I adopt a linguistic approach to the L2 acquisition of Arabic and English genitive constructions that represent the hallmark of their nominal phrase structure. In descriptive and comparative studies, it has been shown that the two English *of*- and *s*-genitive constructions (Altenberg, 1982; Rosenbach, 2014) are rendered in a canonical synthetic genitive or Iḍaafa in Standard Arabic (Al-Shaer, 2014; Benmamoun, 2000) and optionally in synthetic or analytic genitives or Iḍaafa in Arabic dialects (Soltan, 2007). These are presented in (1) and (2):

| | | | | | |
|---|---|---|---|---|---|
| (1) | (a) | the boy | *'s* | shirt | *(frequent)* |
| | | *possessor* | *genitive marker* | *possessum* | |

| | | | | | |
|---|---|---|---|---|---|
| | (b) | the shirt<br>*possessum* | *of*<br>*genitive marker* | the boy<br>*possessor* | *(Attested but not frequent)* |
| (2) | (a) | *ʔamiiṣ/ qamiiṣ*<br>*shirt*<br>*possessum* | | *el-walad*<br>*the-boy*<br>*possessor* | *(Synthetic Iḍaafa)* |
| | (b) | *el-ʔamiiṣ*<br>*the-shirt*<br>*possessum*<br>*"the boy's shirt"* | *bitaaʕ*<br>*of*<br>*genitive marker* | *el-walad*<br>*the-boy*<br>*possessor* | *(Analytic Iḍaafa in Egyptian)* |

The surface structure of the *of*-genitive in English and the synthetic genitive in Egyptian and Standard Arabic show structural overlap realities (Hulk & Müller, 2000; Müller & Hulk, 2001). They both start with the possessum. More importantly, the surface structure of the *of*-genitive shows significant overlap with the analytic genitive in Egyptian Arabic; they both start with the possessum, followed by the genitive marker (*of* and *bitaaʕ*) and closes with the possessor. In standard syntactic analyses that adopt derivational complexity, the *s*-genitive is held to be more complex than the *of*-genitive, since it involves raising the possessor in the determiner phrase (Strik, 2012; Strik & Pérez-Leroux, 2011). Therefore, genitive constructions in Arabic and English offer good grounds to test for these two hypotheses in L2 acquisition.

The results of an elicited production task showed in the direction of English (Egyptian Arabic L2 learners of English), intermediate participants (N = 15) tended to produce the *of*-genitives in contexts in which the *s*-genitives were the target construction. Advanced participants (N = 15), on the other hand, produced the more complex *s*-genitives. The results of the same elicited production task in the direction of Standard Arabic (English L2 learners of Arabic) showed that for comparable intermediate learners (N = 15), the structural overlap did not conspire to trigger crosslinguistic influence; the participants were able to produce the target synthetic Iḍaafa although the equivalent surface structure of their L1 English genitive was different.

The findings of the English direction suggest that the surface overlap involved between the *of*-genitives and the corresponding genitive constructions in Arabic (Egyptian and Standard) conspired to trigger this crosslinguistic transfer. Also, resorting to the overlapping *of*-genitive option can be viewed as a strategy to avoid the more complex *s*-genitive option. The results of the advanced group imply that the acquisition of English genitive alternation undergoes two developmental stages. In the first, learners favor the less complex and overlapping *of*-genitives. In the second, they acquire the syntactic derivation in the *s*-genitives that raises the possessor in the DP. In the direction of Arabic, the findings suggest that salience of the canonical head-direction in the construct state conspire to *block*/hinder cross-linguistic influence. Learners of Arabic were attentive to the position of the head (al-muḍaaf) that is followed next by the complement (*al-muḍaaf ʔilayhi*). Further explanations of the structural conditions that modulate crosslinguistic transfer in L2 acquisition (adequacy of structural overlap, derivational complexity, and salience hypotheses) are discussed.

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## The emergence of clauses in young Lebanese-Arabic-speaking children

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Lebanese speech and language pathologists face significant challenges in discerning typical from atypical development in young children given that typical language milestones remain unknown for Lebanese Arabic. Knowing whether a child's language development is late presupposes knowing the age of emergence of multiword utterances and in particular those that express a subject-predicate relationship. This requires taking into account the syntactic alternatives Arabic offers in this regard: verbal (where the verb can either be a so-called pseudo-verb or a lexical verb) as well as verbless predicates, lexical as well as null subjects, pre- (SV) as well as post-(VS) verbal subjects. We follow numerous authors in considering that Arabic clauses with verbless predicates are TPs without a VP and that S-V order involves movement of the subject, while, in V-S order,

the subject does not move from its base-generated position, remaining inside VP [1]. The current study aimed to investigate which of these subject-predicate relations might be expected to emerge earlier, and whether this is what is actually found. So, for example, since verbal predicates involve agreement, whereas verbless predicates do not, the latter might be expected to emerge before the former, though this has not been examined in acquisition studies. Acquisition studies have addressed the question of the acquisition of VS/SV in Arabic [2]. It was reported that children younger than 2;6 repeat sentences with VS order better than those with SV order, but that children older than 2;6 perform equally well for VS and SV orders. However, a longitudinal study of two children's spontaneous language samples found that both produced more SV utterances, when they were younger and older than 2;6.

In this study we sought to determine the order of emergence of the predicate-subject alternatives available in Arabic through analysis of spontaneous language samples collected from 40 Lebanese children aged 1;6 to 3;5. Our goal of establishing the overall developmental sequence motivated our focus on the emergence of these structures rather than their relative frequency [3]. We analyzed 3,452 utterances out of 4,294 child speech turns, reaching approximately 100 utterances per child, after utterances consisting solely of repetitions by the child, yes-no answers, interjections, unintelligible material, etc. were omitted [4].

As expected, given the age range, mean Length of Utterance (MLU) significantly increased with age: ($r_s$ = 0,890; $p$ < 0,001). We first of all compared verbs to pseudo-verbs and found that these seem to have the same pattern in terms of age of first appearance (1;6) and age of stabilization (1;11) in child speech and both significantly increased with age (simultaneously $r_s$ = 0,680; $p$ < 0,001; $r_s$ = 0,561; $p$ < 0,001). Thus, clauses headed by verbs and pseudo-verbs will be grouped together VPs (verbal predicates). We next looked at when and in what order clauses and their precursors emerged. Overall, the following stages were identified (Figure 1). In stage 1, utterances consisted only of Noun Phrases (NP). In stage 2, children also produced isolated AdjPs, AdvPs and/or PPs, as well as VPs, but only with null subjects (beginning at age 1;6). The children in stage 3, also produced verbless predicates with lexical subjects, but VPs continued to have only null subjects. Finally, in Stage 4, VPs with lexical subjects emerged (beginning at age 1;11). Interestingly, VPs occurring with lexical subjects displayed both SV and VS order from the beginning. Both orders therefore seem to emerge at roughly the same time, i.e., age 2.

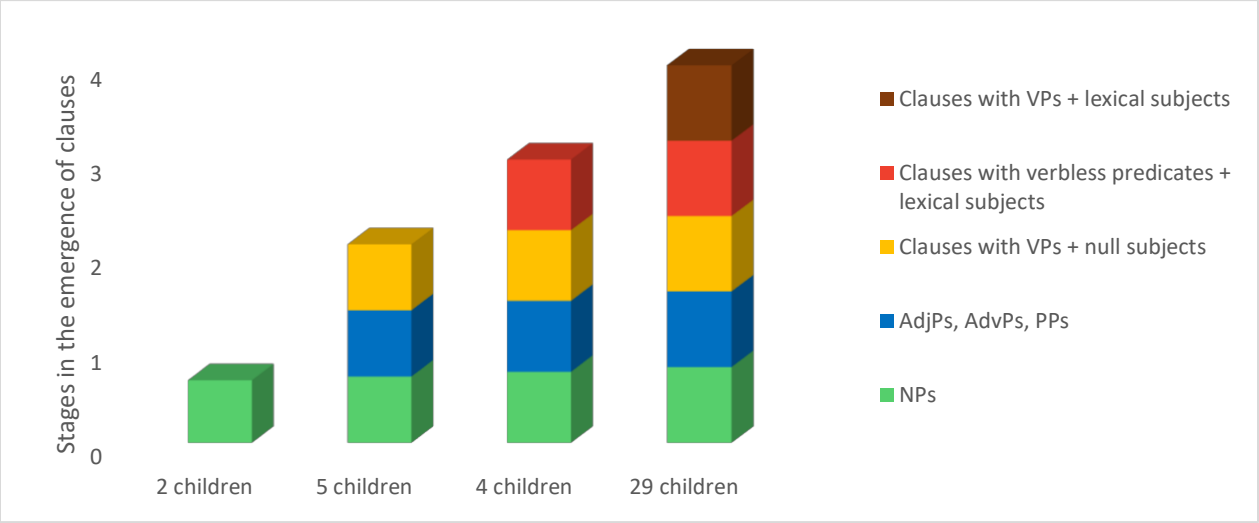

Figure 1: Stages in the emergence of clauses in Lebanese-Arabic-speaking children

Summarizing, the emergence of clauses was preceded by production of isolated NPs. Clauses with null subjects emerged before those with lexical subjects. Lexical subjects occurred with verbless predicates before they did with VPs. Finally, the additional syntactic movement (movement of the subject to a higher position) required for SV order but not for VS order does not seem to have an effect on the order of emergence of SV with respect to VS.

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## Cognitive retroactive transfer of (meta-)linguistic skills from English (L3) into French (L2) and Standard Arabic (1) among trilingual Moroccan learners

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The Linguistic Interdependence Hypothesis assumes that certain L1 language skills can be positively transferred during the process of L2 acquisition. While the transfer of (meta-)linguistic skills from L1 to L2 has been studied extensively, only few studies have investigated the reverse transfer of these skills. This study examined the effects of a four-month intervention aimed to help average and poor readers improve their (meta-)linguistic reading skills, (namely orthographic awareness, phonological awareness, morphological awareness, syntactic awareness, and vocabulary knowledge) in English (L3) on similar skills in French (L2) and Standard Arabic (L1). In particular, it investigated whether an improvement in (meta-)linguistic skills in English (L3) would lead to an improvement in reading comprehension achievements in French (L2) and Standard Arabic (L1) among trilingual Moroccan learners. 67 eleventh-grade students (29 males and 38 females) were purposively selected and randomly assigned to an experimental group (n=35) and a control group (n=32). All participants were administered a battery of written pre-tests and post-tests to evaluate their levels in the target skills in Arabic, French, and English before and after the intervention. Only the experimental group received training in (meta-)linguistic reading skills in English. The difference between (meta-)linguistic reading skills levels and reading comprehension scores before and after the intervention was examined using one-way-MANOVA. Apart from orthographic awareness in Arabic, results indicated a significant improvement in the experimental group's (meta-) linguistic reading skills awareness, and reading comprehension scores in all the study languages. Based on these results, we suggest that learners of English as a foreign language should be explicitly instructed in (meta-)linguistic reading skills. Results imply that a link among the different languages taught at school should be established so that acquired language skills learned in one language could transfer from one language to another.

Keywords: Cross-language transfer; (meta-)linguistic skills; reading comprehension; intervention; trilingual learners; Cognitive retroactive transfer

**Does Levantine Arabic Clitic Doubling Derive from Aramaic? A Contact Linguistics Approach**

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In this paper, I argue that the oft-repeated claim that clitic doubling in Levantine Arabic (hereafter Levantine) is a result of an Aramaic substrate is not supported by the data. In Late Antiquity Aramaic was a widely spoken language throughout the region and in the wider Fertile Crescent (Gzella 2015), comprising a dialect continuum from East to West that was not interrupted until the rise of Arabic in the 7th century CE (ibid: 338). Scholars have attempted to ascribe many grammatical and lexical features found in modern Levantine dialects to an Aramaic "substrate," including clitic doubling, in which a direct object is headed by a particle, typically the preposition la- 'to, for' and an accompanying co-referent pronominal clitic on the verb (Féghali 1918: 85; Blau 1966: 413-19; Diem 1979: 47-49; Rubin 2005: 106; Souag 2017: 48-52; Zu'bi 2019: 259). An example of this construction in Levantine and Christian Palestinian Aramaic (CPA) is provided in (1-2):

(1) Lebanese (Aoun 2006: 412)

| ramzī | zār | -o$_1$ | la- | karīm$_1$ |
|---|---|---|---|---|
| R. | visited.3M.S | -3M.S.CL | OM- | K. |

'It is Karim whom Ramzi visited.'

(2) CPA (Schulthess 1924: 88)

| ʾaḏleq | yāṯ | -ē(h)$_1$ | lə- | būṣīn$_1$ | -ēḵ |
|---|---|---|---|---|---|
| light.1S | OM- | -3M.S.CL | OM- | lamp | 2F.S |

'I light your lamp.'

The assumption that this construction is a result of an Aramaic substrate in Levantine is not unexpected given a number of similarities in structure and usage. However, none of the previous works have addressed systematically the nature of the contact between Levantine and Aramaic in order to establish a relationship between the two languages such that a syntactic feature like clitic doubling could have spread the latter to the former. In many cases, such as Féghali (1918), Rubin (2005), Río Sánchez (2013), Souag (2017), and so on, explicit comparisons are made between clitic doubling in Arabic and Syriac, which also happens to indicate the direct object using the preposition l-. Syriac is a Christian literary-liturgical dialect of Late Eastern Aramaic, which originated in northern Mesopotamia, and as such is not native to the Levant, which had its own attested dialects (e.g. CPA and Jewish Palestinian Aramaic). In these Western dialects, direct objects were most often marked with a different particle yat, as in (2), and clitic doubling is non-existent (Pat-El 2012: 114), the above example being one exception.

Yet even if we assume that the Levant had contact with Syriac speakers, in order to prove a demonstrable case of interference, a set of criteria is required to differentiate between genuine contact-induced language change on the one hand and genetic transmission or independent development on the other. In other words, it is not enough to prove that the two languages were spoken in the same area. Instead, a number of factors must be evaluated including which languages were in contact with each other, the nature and intensity of contact, the totality of changes that took place as a result, and whether the structure was present in the source language but not in the receiving language at the time of contact.

In this study, I investigate previous claims about Arabic-Aramaic contact with respect to Levantine clitic doubling, namely which dialects of Aramaic and Arabic were spoken in the Levant, the timeline and circumstances of the shift from Aramaic to Arabic, and the relationship between the speakers of the two speech communities. Although the extant historical records are incomplete, we can still glean important clues from accounts of individuals who lived in the

relevant contact period as well as historical records of events. Based on this data, I argue that there is insufficient evidence for the claim that clitic doubling in Levantine is an Aramaism for two main reasons: 1) in Levantine clitic doubling functions to recall or reinvoke a topic (Brustad 2000: 355), which is a markedly different pragmatic function from its attested use in Aramaic as a marker of definiteness; and 2) in the Late Antique period, Aramaic was not a prestige language in the Levant and did not have the cultural currency or the speaker population size to exert structural influence on the Arabic that was developing in the region. This study of clitic doubling contributes to our understanding of the history of Levantine and Arabic more generally by bringing together both historical and linguistic data within a principled framework of contact linguistics, which has generally been absent from the previous scholarship on this topic.

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## Remixing Sibawayhi's Sounds of Silence


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The author argues that modern socio-phonetics adds to the field's understanding of Sibawayhi's *ğahr*/*hams* sound classification. His categorization of *maǧhūr* and *mahmūs* consonants mostly fall into their respective voiced and voiceless categories save *ṭ*, *ʾ*, and *q*. Modern linguists often

describe these three sounds as voiceless, but Sibawayhi does not (Al-Nasser 1993). Two main schools of thought have attempted to remedy this mismatch.

The first school of thought indicates that the sounds were just voiced variants (cf. Danecki 2012). The glottal stop may be considered voiced since there may not be full occlusion and it can often be realized as voice creak in many languages and phonetic environments (cf. Ladefoged et al. 1996: 75). It is also often realized as a voiced glide or even ʿ in some varieties. The *q* is widely realized as *g* and ʾ in many dialects. However, the phoneme *ṭ* still seems problematic since its voiced description is quite debatable. Some scholars conclude that *ṭ* could have been realized like modern *ḍ*, while others have criticized the lack of borrowings of Arabic words where *ṭ* is written as *d*.

The other school of thought is that *mağhūr* and *mahmūs* actually signify something else rather than voiced and voiceless (cf. Heselwood and Maghrabi 2015). Their results present convincing laboratory phonology evidence for Modern Standard Arabic speakers from several dialect backgrounds that a more constricted glottis can pair these three so-called voiceless sounds, *ṭ*, *ʾ,* and *q,* with voiced sounds. In contrast, all other voiceless aspirated ones remain as such with a more open glottis. Although they do concede that the vernacular background of the speakers may explain some conflicts in their data. Both camps leave the possibility open that dialect and sociolinguistic variation could play a role in the *mağhūr*/*mahmūs* distinction but perhaps overlook some old and modern data.

Sibawayhi's pronunciation of *mağhūr ṭ* could have been just voiced. For example, Modern Yemeni dialects show prevocalic and intervocalic realizations (see Behnstedt 2016: map 10, Rossi 1939: 236). In Aswan Arabic, prevocalic *ṭ* can be voiced but it is stigmatized (Author 2018). Sibawayhi (Vol. 4: 432) describes *ṭ* > *t* as "improper" for poetry and the Quran. This could refer to what Ibn yaʾīš (1886:127) of the 11th century remarks on Arabic-speaking Persians realizing *ṭ* as *t* or similar phenomena. These points show the past socio-phonetic variation of the time: *ṭ* > as *d* and *t* with VOT appearing as a key distinction for measurement.

Modern scholars have found in some varieties that *t* is aspirated and voiceless (cf. Khattab et al. 2006). This paper gives evidence from a modern dialect (mixed-effects model) with a possibly similar socio-phonetic pattern to Sibawayhi's *ṭ*: lightly aspirated productions like *t* from the Nubians (possibly due to language contact) (M = 22.892 +/-1.239ms) and voiced realizations for *ṭ,* mostly for ṣaʿīdis (M = -22.942 +/- 1.312ms).

Sociolinguistic variation for *ʾ, q,* and especially *ṭ* may add to the debate. Sibawayhi used to depend on the Bedouins of Hijaz and Tamim for *man turtaḍa ʿarabiyyatu-hu* "whose Arabic is approved of" for his phonetic data (cf. Levin 1994). Accepted Bedouin examples sometimes differ with Quranic and poetic data in *Al-Kitāb* and could have played a role in an infrequent voiced variant being included as the paradigm. Perhaps no older borrowings of Arabic words contain a *d* < *ṭ* because the voiced pronunciation was variable in Bedouin speech and maybe not very representative of Arabic spoken at the time. But this voiced variant contrasts well with an aspirated, "improper", Persian-like *t* pronunciation of *ṭ*. There is still room for the ordinary *mağhūr* 'voiced'/*mahmūs* 'voiceless' interpretation alongside the other interpretation. In short, this paper shows that modern socio-phonetics can add to this old phonological debate.

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## Adaptation and Validation of the Boston Diagnostic Aphasia Examination into Moroccan Arabic

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The Boston Diagnostic Aphasia Examination (BDAE; Goodglass and Kaplan, 1983) is widely used in clinical assessments to assess different aspects of language performance for classifying patients into distinct anatomically based aphasic syndromes. The aim of this investigation was to present the adaptation and validation of the short form of the Boston Diagnostic Aphasia Examination into Moroccan Arabic (MDAE-SF).

Following the Brislin methodology of cross-cultural translation (1970), the adaptation process consisted of two phases. In Phase 1, original test items in the short form of the BDAE-SF were translated into Moroccan Arabic and modified with careful control of the psycholinguistic variables specific to Moroccan Arabic syntax and morphosyntactic structure. Examples of the many issues raised during the translation: In the 'word comprehension' subtest, some words were

replaced due to their familiarity and frequency, such as "bear, tulip and brown" become "cow, flower and green". The revised words were chosen from the same lexical field of the original items (foods, animals, tools, body parts, etc.). The syllabic structure was strictly respected in the 'Repetition' subtest: One-syllable words /ktab/'book', two-syllable words /kursi/'chair', and multisyllabic words / mustaʕmal / 'used'. Sentences ranged from two to ten words keeping the same syntactic structure of the original test. In the 'Complex Ideational Material' subtest, and due to the low frequency and familiarity of the word "cork", the sentence "will a cork sink in water?" substituted by the sentence "will a paper sink in water? / will a stone sink in water". In the 'Reading of Sentences with comprehension' subtest, some sentences were modified, keeping the same context and structure because they are culturally inappropriate, for example, "Jim and Marry pack a picnic lunch. They decided to go in swimming because the water is warm and calm." In the writing subtest and since the writing systems of the two languages are different, the English words were replaced with Modern Standard Arabic words based on the frequency of occurrence and the complexity of the syllables. Phase 2 involved piloting the MDAE-SF among 100 healthy adults ranging in age from 22 to 80 years old, and a sample of 17 patients with subtypes of aphasia and etiologies (age range: 37-82 years old). Patients were recruited from the University hospital M6. The etiology of aphasia was diagnosed using a clinical neurological examination along with magnetic resonance imaging of the brain. All participants were right hand native Moroccans who speak Moroccan Arabic.

To check the reliability of the MDAE-SF, we evaluated the internal consistency and stability of the scores obtained from the aphasic group. To ensure internal consistency, Cronbach's α coefficients were calculated. For stability, the MA-BDAE scale was administered to the same 17 aphasic patients at a one-week interval, ICC were calculated to assess the test-retest reliability of the scale. The scores of healthy adults and those of aphasic patients were compared to assess the validity.

Results indicated that the aphasic group scored lower in all the Moroccan Diagnostic Aphasia Examination subtests. The Cronbach's alpha values were higher than 0.8, indicating that the MDAE-SF had high internal consistency. The test-retest reliability coefficients were 0.85 ($p<0.01$), 0.97 ($p<0.01$) and 0.96 ($p<0.01$) for fluency, auditory comprehension and oral expression subtests respectively. Based on the results of the 17 aphasic patients, the MDAE-SF subtests correlation matrix shows a good correlation (between 0.51 and 0.91), which indicates the test validity.

This paper did not analyze whether demographic variables such as gender, age and level of education would have an effect on Moroccan aphasics' performance. We leave such an endeavor to future research. As a conclusion, the MDAE-SF is a sufficiently reliable and valid test instrument that meets the need for an appropriate aphasia battery in Morocco.

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**Investigating naming and connected speech impairments in Moroccan patients with Alzheimer´s disease**

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**Introduction:** Previous research has indicated that language impairments are recognized as a feature of many neurodegenerative disorders, including non-language-led dementia subtypes such as Alzheimer´s disease (AD) (Kavé, G., & Dassa, A. 2018). In this preliminary study, the focal aim is to quantify the semantic content of naming and connected speech samples of Moroccan patients diagnosed with AD using three tasks taken from the culturally adapted and validated Moroccan version of the Boston Diagnostic Aphasia Examination (Rami & Diouny, 2020). The rationale for the study resides in that little research has been conducted on language impairments in AD, even less research has been done on AD´s language impairments in Arabic speaking patients in general and Moroccan Arabic AD patients in particular. AD is a neurodegenerative condition where dementia symptoms lead to a decline in mental function severe enough to interfere with a person's quality of life, autonomy, prognosis and social relationships. Language problems in AD include word retrieval and word-meaning association difficulties, resulting in empty speech and incoherent discourse (Salmon et al, 1998; Klimova et al 2015; Ahmed et al, 2013; Astell & Harley 1998). On this basis, speech and language impairments in AD have become central in clinical research. Research to date on word-finding difficulties has raised two possibilities regarding the locus of these impairments. Anomia in AD has been ascribed to either impaired lexical access to semantic representations (Reilly et al, 2011) or degraded and disorganized semantic knowledge (Lidon et al, 2013, Hodges 1996). A decline in word finding abilities in AD is consistent with several studies on English speakers. Ahmed et al, (2013) examined the semantic content of AD´s connected speech samples in 18 AD patients and 18 neurologically healthy controls using a picture description task. Qualitative analysis of the data revealed that AD patients produced significantly less semantic units than controls. Thus, despite the interest of several investigators past and present much remains to be determined about the locus of the naming deficit in AD.

**Methods:**

**Participants:** five individuals with AD and five neurologically healthy individuals matched for age, gender and education will participate in the study. Participants with AD will be diagnosed on the basis of the Moroccan version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-4) screening test, the Moroccan version of the Mini Mental State Examination (MMSE) test scores and neuroimaging analyses. Neurologically healthy participants will be excluded if they have a history of traumatic brain injury or language impairments.

**Materials:** According to the English version of the Boston Diagnostic Aphasia Examination test (Goodglass, H., & Kaplan, E. 1983) which provided the template for the development of the Moroccan Diagnostic Aphasia Examination (MDAE-SF) which was translated and adapted considering the morphosyntactic and morphosemantic specificities of Moroccan Arabic and includes five functional subsections (*Conversational and expository speech, Auditory comprehension, Oral expression, Reading and Writing).* Picture description: in order to measure expository discourse, participants will be asked to describe the cookie theft picture. Picture naming: participants will be asked to name 15 objects in line drawings. Spontaneous speech: the examiner will engage in a conversation of 3 minutes with each participant regarding their daily lives.

**Procedure:** The participants will engage in three tasks taken from the MDAE-SF: 1) Picture description, 2) Naming and 3) Spontaneous speech. The picture description and naming stimuli will be visually presented by the researcher using a MacRecorder and a Macintoch pro M1 computer with a mouth-to microphone distance of 8 inches. Each subject will be tested in a quiet

room at the hospital, sitting in front of the computer and their responses will be recorded via high quality headphones.

**Expected findings:** Consistent with previous studies conducted on English speaking AD patients, we expect to find significant word production and retrieval impairments in AD patients in all measures. Moreover, we expect to find category fluency impairments that further endorse semantic breakdown accounts.

**Discussion and conclusions:** In sum, not only will the findings of the current study shed more light on the locus of word retrieval impairments noted in AD, but also reflect the nature of Arabic morphology. In addition, the error patterns are expected to be similar to those found in previous AD studies in other languages. This study has implications for clinicians to improve AD language impairment characterization in Arabic speaking patients.

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## Pronoun production in Moroccan Arabic agrammatism

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Agrammatic aphasia is a language disorder characterized by selective morpho-syntactic deficits affecting the production and comprehension of sentences. A characteristic feature of this deficit is the omission and/or substitution of grammatical items. Cross-linguistic studies suggest that patients with agrammatic aphasia (PWAA) experience difficulties processing pronouns (Miceli & Mazzucchi 1990); however, not all pronouns are equally impaired. While research on the breakdown of pronoun processing has received cross-linguistic attention, fewer attempts were made at looking at how and why pronouns are impaired in Moroccan Arabic (MA) agrammatism (e.g., El Ouardi & Diouny, 2021). The objective of this study was to systematically examine pronoun production in the speech of 5 MA-speaking agrammatic patients and 5 matched normal controls.

Connected discourse was elicited from the 10 participants using the Cookie Theft picture from the Boston Diagnostic Aphasia Examination (Goodglass & Kaplan, 1972). To allow for a valid test of the neurolinguistic hypotheses developed to account for the pronoun deficit in agrammatism, we carried out separate analyses looking at: (1) subject and object pronoun production in the presence of finiteness and a case assigner, respectively (test of the Preserved Case Hypothesis (PC-H), Ruigendijk et al., 1999), (2) discourse-linked vs locally-bound pronoun production (test of the Discourse-linking Hypothesis, Avrutin, 2000), and (3) grammatical vs lexical pronoun production (test of the Grammatical-Lexical Pronoun Dissociation Hypothesis (GLPD-H), Ishkhanyan et al., 2017).

Results indicated that the 5 PWAA produced more errors on subject pronouns in non-finite than in finite contexts, and that direct object (DO) and indirect object (IO) clitics were absent in their speech. The PC-H holds that while nominative case depends on verb finiteness, accusative and dative case depend on verbs. Therefore, the PC-H fails to fully support our findings on the basis of PWAA's omission of DO and IO clitics even when a case assigner was produced. The absence of DO and IO clitics can, however, be accounted for by the D-linking hypothesis, which assumes that the discourse-linking demands involved in DO and IO clitics' production exceed patients'

limited processing capacity (Avrutin, 2000). The results also supported the GLPD-H's predictions in that PWAA had more problems with pronouns classified, using Boye & Harder's (2012) focalizability criterion, as grammatical than pronouns classified as lexical.

Findings of the present study revealed that pronoun production is selectively impaired in MA agrammatism, and that a syntactic account of the deficit (PC-H) is challenged on empirical grounds. An alternative processing view not only explains DO and IO clitics' impairment in agrammatism, but also captures the grammatical-lexical dissociation observed in the sense that, taking into account patients' limited processing capacity, grammatical pronouns were more frequently dispensed with given their secondary language functions. Theoretically-speaking, findings from the study provide additional cross-linguistic evidence in support of selectivity in pronoun breakdown in agrammatism, corroborating the breakdown-compatibility of a syntax-discourse model of pronoun processing (Avrutin, 2006) as well as suggesting the need of revisiting an understanding of pronouns as strictly belonging to the closed-class category of words (Chomsky, 1981; Harley, 2006).

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**Production of Arabic Geminates by English Speakers**

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**Abstract**
This study investigates the production of Arabic intervocalic geminate obstruents as produced by American L2 learners of Jordanian Arabic. Participants of the study were 24 learners Arabic (12 advanced, 12 beginners) at North Georgia University and 12 native speakers of Jordanian Arabic (control group). An examination of the results reveals that native speakers of Arabic and advanced Arabic learners pattern similarly while the beginner Arabic learners show a different pattern. Native speakers as well as advanced L2 learners of Arabic maintain a contrast between geminate and singleton consonants in terms of consonant duration while beginner L2 leaners do not. Unlike the case of the beginner L2 learners, the duration of the preceding vowel is found to be shorter before a geminate in native speakers and advanced L2 learners. However, the duration of vowels following a geminate is not affected across all proficiency levels, a similar conclusion reached by Khattab & Al-Tamimi (2008) for Lebanese Arabic. Further, the results suggest that place and manner of articulation do not have any effect on the production of geminate consonants for both native and advanced L2 learners, contra Al-Deaibes (2016) and Al-Deaibes & Rosen (2019) for Rural Jordanian Arabic. Finally, voicing of geminates is found to have a significant effect on the duration of geminates, in favor of voiceless geminates, among native speakers and beginner L2 learners.

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**Farasani Arabic intonational phonology: Intonation ignores stress unless a word is focused**

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In the Autosegmental-metrical (AM) model of intonational phonology (e.g., Pierrehumbert 1980; Beckman & Pierrehumbert 1986; Ladd 2008), intonational contour is analyzed as a sequence of L and H tones, and these tones have two functions: marking prominence with a pitch accent and marking edges of a prosodic unit with a boundary tone. A pitch accent (marked with a star, e.g., H*, L*, L+H*) is typically realized on a stressed syllable of most content words, and a boundary

tone is typically realized on the edge syllable (initial or final or both) of a prosodic unit. The goal of the current study is to demonstrate typologically unique properties of intonation of Farasani Arabic, analyzed in the AM framework. Farasani Arabic is an under-documented dialect of Arabic spoken in the Farasan islands in Saudi Arabia (roughly 20,000 speakers). Like other varieties of Arabic, Farasani Arabic has a lexical stress in every content word, which is typically longer and louder than unstressed syllables. Therefore, it was expected that a stressed syllable carries a pitch accent in Farasani Arabic. However, we found that intonation ignores stress unless a word is narrowly focused, and the edge of each content word is mostly marked by a boundary tone of an Accentual Phrase, a prosodic unit slightly larger than a word.

**Methods**: The data was collected from 7 Farasani speakers (five females) in their 20s and 30s. Speakers were recorded in a quiet room in Farasan Island, except for one female speaker who was recorded in the US. The data included different sentence types varying in the word order, the number of syllables in each word, the location of stress, the complexity of syntactic structure, and the location of narrowly focused word. Pitch tracks, waveform, and spectrogram of each sentence were displayed in *Praat* and the pitch targets were labeled following the conventions commonly employed in various intonational phonology models and ToBI systems (e.g., Beckman, Hirschberg, & Shattuck-Hufnagel 2005, Jun 2005, 2014, Prieto & Roseano 2010, Frota & Prieto 2014).

**Results**: First, the intonation contour of declarative sentences produced in a neutral focus condition consists of a sequence of rising tones (L H), with the L tone consistently realized on the first syllable and the H tone on the final syllable of a content word, regardless of the location of the stressed syllable, except for the sentence final word whose final syllable shows an L tone, which is an L%, IP-final L boundary tone, marking the end of a declarative sentence; See Fig.1. Further, the domain of a rising tone can include more than one word, suggesting that the domain is an AP. See Fig.2: the first two words ('sons', 'neighbors') show one rising pattern (L Ha). Again, the rising pattern is irrelevant to the stressed syllable of each word. However, when a word is narrowly focused, the stressed syllable of the focused word carries a H tone, i.e., H* pitch accent. Fig.3 shows the same sentence as in Fig.1, but with narrow focus on the second word. Here, the word-initial stressed syllable, not the final syllable, of the verb shows an f0 peak, in higher pitch range than the neutral rendition in Fig.1, and the rest of the sentence shows low f0. Because the degree of juncture before and after the focused word corresponds to a typical AP boundary, the L tones at the end of the pre-focus word and at the end of the focused word are analyzed as an AP-final boundary tone, La.

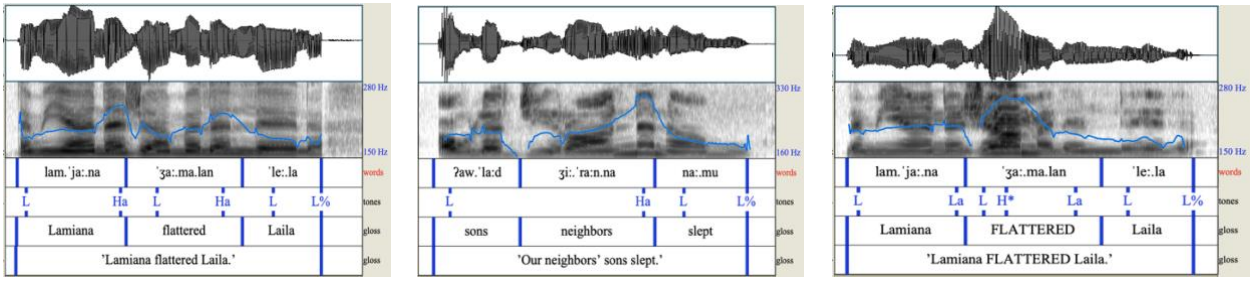


Fig.1(left): f0 tracks of 'Lamiana flattered Laila', where the first two words show a rising tonal pattern with L on word-initial and Ha on word-final syllable, despite their different stress locations (speaker F1). Fig.2(center): the first two words together form a rising tonal pattern, i.e., one AP (speaker F3). Fig.3(right): the 2nd word, verb, is narrowly focused (corrective focus) and its stressed syllable carries a H tone, i.e., H* pitch accent (speaker F1).

**Discussion**: Our study shows that Farasani Arabic has a typologically unusual prosodic system by having a stressed syllable but no pitch accent unless a word is focused. It is also unique among Arabic dialects (e.g., Alzaidi 2014, El Zarka 2017, Chahal & Hellmuth 2014) by having an AP purely marked by boundary tones, [L Ha], like Korean (Jun 1998, 2005). So far only a few languages have been claimed to be an exception to the association between stress and intonational pitch accent, e.g., Wolof (Rialland & Robert 2001), Kuot (Lindstrom & Remijsen 2005), Uyghur (Major & Mayer 2019). However, Farasani Arabic is further different from these languages because unlike these languages where stressed syllables are not aligned with intonational events in all conditions, stress in Farasani Arabic is involved in forming intonational tones only when emphasizing the prominence of a word. So, Farasani Arabic is a partial exception to the general association between stress and intonation, further challenging the current models of intonation and prosodic typology (e.g., Ladd 1996/2008, Jun 2005, 2014).

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## Neutralisation of Voice in Colloquial Arabic Verbs


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Although most varieties of Arabic have a morphological device to mark passive voice (as well as reflexivity), diathesis is not always marked in colloquial Arabic. While different valency patterns are often observed crosslinguistically for certain verbs (e.g. verbs meaning 'open' or 'close' allowing both transitive and intransitive, i. e. passive usage), colloquial Arabic offers some interesting cases which can are worth attention even in general typological terms. In this paper, upon presenting relevant authentic data, I argue that voice neutralisation should be conceived as a grammatical construction appearing across a range of colloquial Arabic varieties. The research presented in this paper was motivated by a pilot study which I conducted with five native speakers of Cairene Arabic. The study targeted the verb *ʔibil/yiʔbal* 'accept', which can be considered a prototypical transitive verb, but in colloquial usage also allows for a passive reading without formal passive marking, namely in the context of 'being accepted to an institution (like a university or a company)'. This means that the following two structures are equivalent:

(1) *a.* *ʔibil-ti* *fi g-gamᶜa* *b.* *it-ʔabal-ti* *fi g-gamᶜa*
accept.PF-1SG in DEF-university PAS-accept.PF-1SG in DEF-university
'I was accepted to the university.'

The participants of the study were asked to read aloud a set of sample excerpts taken mostly from chat conversations on social networks (which provide enough material written in colloquial Cairene Arabic). Five items included a passive usage of a formally active form of *ʔibil* (like in

1*a*) and one control item contained a passive form (like in 1b). Only once throughout the experiment, i. e. in less than 5% of the occurrences of the structure at stake, it happened that a participant spontaneously replaced the active form with its passive counterpart. Otherwise the forms passed unnoticed. Conversely, the single item marked as passive was never repaired. These results confirmed the voice ambiguity of *ʔibil* and hence its equivalence with the formally marked passive form in intransitive usage.

My further investigation led to the observation that other verbs also show this behavior, this time from two Levantine Arabic varieties (I admit that (3) is attested only marginally):

(2) *naʔal-ət ᶜala bēt ždīd*
carry.PF-1SG to house new
'I moved to a new house.'

(3) *faḥaṣ-ət ʔabl is-safar*
test.PF-1SG before DEF-trip
'I got tested before the trip.'

While in (2) the active form is functionally equivalent to the reflexive *intaʔalət* (marked by the *-t-* infix), in (3) a morphological passive form seems to be unavailable (not for morphological reasons, it is simply not used). In both cases it might be assumed that an instance of ellipsis is involved ("I moved *my belongings*..."; "I tested my *blood sample*..."), but I argue that this is not a plausible account, since there is no evidence for an object indeed conceived of by the speaker. Instead, I argue that the usage of the unmarked forms in passive/reflexive meaning is motivated by communicative efficiency, being licensed by the fact that the active interpretation is ruled out by the context and therefore the marked form is not called for.

The paper further presents other verbs exhibiting similar behavior, thus investigating the productivity of the proposed construction, and treats also other varieties of Arabic, which allows for a dialectological comparison, but mainly points to remarkable similarities. This also implies methodological issues given by the absence of easily searchable corpora of colloquial Arabic, due to which one has to rely on heuristic investigation and experiments with native speakers to obtain relevant data.

On the general analytical level, the paper thus raises the problem of an adequate account of such phenomenon in descriptive terms, since the passive usage of the unmarked form can be viewed as a lexical feature of the particular verbs (just like it is correctly listed as one of the meanings of *ʔibil* in the dictionary of Badawi (1986)), as well as it can be generalized to a grammatical construction which applies to a set of primarily transitive verbs (as it is insightfully presented in the grammar of Cairene Arabic by Woidich (2006)). In the second case, however, one has to treat the different instances of such verbs carefully, since an equivalent alternative marked for the passive is not available for all verbs (as in 3) and often also certain morphological issues come into play, such as formal impossibility of forming a passive (occurring i.e. with verbs of the VIII. (infixed) stem like *imtaḥan* 'examine' or 'be examined'). Nevertheless, I argue that the latter account should be favored and that this phenomenon can be identified as a specific construction across a range of Arabic varieties. In more general linguistic terms, I am dealing with this issue along the lines of approaches emphasizing the importance of extra-linguistic context in language use, like that pursued by Gil (2008). In this regard, it is worth noting that the phenomenon is observed in colloquial varieties of Arabic and not in the standard literary language, which points to the propensity of

spontaneous speech to omit marking of grammatical categories when enough information is provided by the context.

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