Applicative Voice: A view from Causatives in Sason Arabic

Abstract. On the basis of the causative constructions in Sason Arabic, this paper provides independent evidence for Legate’s (2014) analysis of the passive. Legate (2014) treats passive as a variant of a functional head that introduces a DP in its specifier, a configuration that is common to both VoiceP and ApplP. This predicts that an active-passive-like alternation should be available in ApplP as well, which the paper argues is the case in Sason Arabic. In geminate causatives, the causee may be generated as a DP in Spec,ApplP. Alternatively it may also be introduced as a PP headed by mısha ‘to, for’ or existentially closed. Causatives embedded under the verb “give”, on the other hand, exhibit only the latter option.

1. Introduction

Legate (2014) investigates the limitations on the application of the passive based on the presence/absence of a thematic subject in Acehnese (an Austronesian language) and analyses the passive as a subtype of the Voice head itself (see also Chomsky 2000). As stated in Legate (2014), one prediction of this analysis is that an active-passive-like alternation should be possible on Appl as long as the language in question allows the existential closure to apply to the Appl head and has a PP with the right semantics. Moreover, similar to its Voice counterpart in certain circumstances, this passivization does not necessarily end up with a morphological reflex. In this paper, we argue that causative constructions in an unrelated language, Sason Arabic (Semitic, southeastern Turkey), follow from and in fact provide independent evidence for Legate’s (2014) prediction regarding the active-passive-like alternation on Appl.

One strategy to form causatives in Sason Arabic (SA) is via gemination, which allows the causee of an underlyingly transitive verb to be expressed either as a DP or a PP headed by mısha ‘to, for’, as in (1-b) and (1-c), respectively.

Acknowledgments to be added.
In contrast, a periphrastic causative construction, formed with the light verb ‘give’, allows the causee to be introduced only as a PP headed by mıša ‘for, to’. Consider (2).

(2)  ado dolab-ad-en mıša tamirci addil
gave.3PL shelf-PL-their to repairman fix.INF
‘They made the repairman fix their shelves.’

(Lit: They gave their shelves to the repairman to fixing)

We argue that the causative constructions in (1) - (2) contain a second, embedded VoiceP; however, this VoiceP exhibits properties that warrant identifying it as a distinct type. We identify this type, which may also exhibit an active-passive alternation, as *applicative VoiceP* following Legate (2014). We arrive at this conclusion by applying various syntactic and semantic diagnostics, such as secondary predicate licensing, sluicing, nonpassivizable idioms, passivization facts and the type of 0-role the causee is assigned.

The paper is organized as follows: §2 introduces the causative constructions in Sason Arabic and briefly discusses their properties. §3 is a more in-depth investigation of these causatives. A variety of diagnostics demonstrate that geminates manifest an active-passive-like alternation, whereas “give” causatives exhibit a passive structure. §4 argues that both embed a distinct VoiceP, which assigns a causee 0-role as opposed to the canonical Initiator role of VoiceP. This explains the distinct behavior of these causative strategies as opposed to another causative construction embedded under “make”. The section proposes that geminates and “give” causatives embed an
applicative VoiceP (à la Legate 2014) and provides the available configurations. §5 summarizes and concludes the paper.

2. Causatives in Sason Arabic

This section introduces the causativization strategies in SA, which will be compared with each other in the paper.

Two morphological processes form causatives in Arabic, including SA: ablaut and gemination. For the ablaut process, causative verbs may be formed from unaccusatives by changing the stem vowel to /a/ (unless the stem vowel itself is /a/, in which case remains as /a/) (Kurylowicz 1957, cited in Hallman 2006; Fassi Fehri 1987). This property also holds in SA. Consider (3) and (4).

(3) a. lāke tal-e
   ‘The stain came out.’
   stain came.out-3

   b. tel-tu lāke
   ‘I got the stain out.’
   came.out.CAUS-1SG stain

(4) a. şelç zayı
   ‘Snow melted.’
   snow melted

   b. zayı-tu şelç
   ‘I melted snow.’
   melted-1SG snow

The second operation to form causatives in Arabic is gemination. In this strategy, the causative affix is realized by geminating the the second cardinal of the stem. Note that geminate causative forms are found for many of the same roots that form ablaut causatives.

(5) a. ḥazīna (be sad) → ḥazzana (make sad, *cause sb to make sb sad)

   b. xariba (be destroyed) → xarraba (destroy, *cause sb to destroy sth)

Gemination is less restricted than ablaut. Transitive verbs may also show a geminate causative counterpart, and the causee of an underlyingly transitive verb may be expressed either as a DP or a PP headed by mışa ‘to, for’, as in (6-b) and (6-c), respectively.

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1Arabic also has the so-called X theme ‘istaf’ala, where the causative theme starts with ʂ and t is used to express the reflexive idea. For instance, the root KTB ‘write’ has the X pattern of the form (ʔi)staktaba. This is lost in Sason Arabic.

2The unavailability of this reading shows that although gemination may apply to transitives in general, it may not apply to those transitive verbs that are themselves derived by ablaut. Ablaut bleeds gemination. We leave aside this restriction since it is orthogonal to the discussion.
(6)  

a.  

fatma qad-e ras-a  
Fatma cut.PST-3F hair-her  
‘Fatma cut her hair.’

b.  

fatma qatt-e kuafor ras-a  
Fatma cut.CAUS-3F hairdresser hair-her  
‘Fatma had the hairdresser cut her hair.’

c.  

fatma qatt-e ras-a mı¸sa kuafor  
Fatma cut.CAUS-3F hair-her to hairdresser  
‘Fatma had the hairdresser cut her hair.’  
(Erguvanlı-Taylan, 2017, 29)

Unergative verbs also may show a geminate causative counterpart. Consider (7), in which the causee is realized as a bound pronoun.³

(7)  

a.  

tı-zak  
3F-laugh  
‘She laughs.’

b.  

a-zakkiiy-a  
1SG-laugh.CAUS-her  
‘I make her laugh.’

On the other hand, there is a contrast between unergative and transitive verbs in terms of how the causee may be expressed. Unlike transitive verbs, which allows the introduction of the causee as a DP or a PP, the causee of a causativized unergative verb can only be expressed as a DP, as in (8) and (9).

(8)  

a.  

ekemal amal  
Kemal worked.3M  
‘Kemal worked.’

b.  

ammul-tu (*mı¸sa) kemal  
worked.CAUS-1SG to Kemal  
‘I made Kemal work.’

³Like other Arabic vernaculars, SA has lost its overt case and mood markings on nouns and verbs, respectively. Only overt pronouns obtain morphological case distinctions whereby nominative-assigned pronouns surface as free-standing elements, whereas accusative and genitive-assigned pronouns surface as bound pronouns that are attached to their assigners.
(9)  a. kelb i-fqez
dog 3M-run
‘The dog runs/is running.’

   b. kemal ku i-faqez (*muša) kelb
Kemal be.3M 3M-run.CAUS to dog
‘Kemal is making the dog run.’

(Yakut, 2013, 34b)

In addition to the root and pattern strategies, SA exhibits two periphrastic causative constructions. The periphrastic causative formed with the light verb ‘give’ allows the causee to be introduced only as a PP headed by muša ‘to, for’. The embedded verb is in infinitival form. Consider (10).

(10)  a. ado dolab-ad-en muša tamirci addil
gave.3PL shelf-PL-their to repairman fix.INF
‘They had their shelves fixed.’

   (Lit: They gave their shelves to the repairman to fixing)

   b. ım-m-a muša fatma şı add-d-u addil
mother-her to Fatma food gave.3F-it fix.INF
‘Her mother had Fatma cook.’

   (Lit: The food, her mother gave it to Fatma to fixing) (Erguvanlı-Taylan, 2017, 221:30)

This construction is calqued on the Kurdish periphrastic causative (Akkuş, 2017; Akkuş and Bennamoun, 2018), which uses the light verb bidin ‘give’, illustrated in (11).

(11)  mı piskilet do çekır-in-e
I.OBL bicycle gave repair-INF-OBL
‘I had the bicycle repaired’

   (Lit: I gave the bicycle to repairing) (Kurdish: Atlamaz, 2012, 62)

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4Note that the causee and the theme in this example are preposed, which is not the basic word order in this construction. We discuss the derivation of this example in footnote 7 after we investigate the basic order.
SA has another type of indirect causative embedded under the verb ‘make’. As illustrated in (12-a), it is a construction with an overt embedded theme argument, but no overt causee. The verb appears in infinitival form. It maintains an agentive reading where the causee is interpreted as indefinite, non-specific ‘someone’ or ‘some people’. The causee can be expressed as a PP headed by the preposition $m$t ‘by, from’, as in (12-b).

\[(12)\]  
\[\text{a. aya} \text{ sa} \text{ addil beyt-ma} \]
\[\text{village.lord made.3SG build.INF house-a} \]
\[\text{‘The village lord made someone build a house.’} \]

\[\text{b. kemal sa } \text{xassil potad } \text{mı mara-ma pir-e.} \]
\[\text{kemal made.3M wash.INF clothes by woman-a old-F} \]
\[\text{‘Kemal had the clothes washed by some old woman.’} \]

This paper focuses on the properties of geminate causatives and “give” causatives, mainly in comparison with “make” causatives, which are discussed in AUTHOR(S) (2019). We argue that similar to “make” causatives, gemination and “give” causatives also contain a second, embedded VoiceP; however, this VoiceP exhibits properties that warrant identifying it as a distinct type, specifically applicative VoiceP (in the sense of Legate 2014).

Before proceeding with the discussion of indirect causative constructions, we briefly touch upon the structure of the geminate causatives built on unaccusative predicates. Geminates formed from unaccusative bases may not express an indirect causative reading (just like the ablaut strategy), similar to their counterparts in other Arabic varieties. This is illustrated in (13), where the interpretation is direct causation.

\[(13)\]  
\[\text{a. xaser } \text{xıréb} \]
\[\text{yoghurt spoiled.3M} \]
\[\text{‘The yoghurt spoiled.’} \]

\[\text{b. leyla } \text{xarr-b-e } \text{xaser} \]
\[\text{Leyla spoiled.CAUS-3F yoghurt} \]
\[\text{‘Leyla spoiled the yoghurt.’} \]

\[\text{NOT: ‘Leyla caused someone to spoil the yoghurt.’} \]
c. xaser m-xarrab (mi leyla)
yoghurt PASS-spoiled.CAUS.3M by Leyla
‘The yoghurt was spoiled (by Leyla).’

Overall, the sequence of morphemes found in this causative construction in SA directly supports
the broad structure of causatives arrived at by other researchers working within the type of
framework assumed here (see, e.g., Alexiadou et al. 2006; Marantz 2008; Pylkkänen 2008; Harley
2013; Legate 2014). As shown in (14), the whole is a simple transitive verb phrase, consisting of
a VoiceP, the causative vP, which is specified as ablaut or geminate, and the phrase headed by the
root. (14-a) is the structure for the active clause in (13-b), and (14-b) is the configuration for the
passive (13-c).

(14) a. VoiceP
    |   VoiceP
    |   vP
    |   Voice\textsubscript{ACT}
    |   Leyla
    |   v\textsubscript{CAUS}
    |   VP
    |   V
    |   DP

‘spoil’ ‘yoghurt’
3. Active-passive alternation in geminates and the GC

This section investigates the properties of geminate causatives and the GC that apply to transitive bases. We demonstrate that geminates exhibit an active-passive alternation, similar to the MC (see AUTHOR(S) 2019) and that the GC behaves as passives.

An initial clue with regard to the structure of geminate-causatives comes from passivization asymmetries. Recall that gemination allows the causee to be expressed either as a DP or a PP. This is illustrated in (15) (see also (6)).

(15) a. kemal ku i-qgi lala kitab kemal be.3M 3M-read.IPFW this.M book
‘Kemal is reading this book.’

b. oratman ki ti-qarri kemal lala kitab teacher be.3F 3F-read.CAUS Kemal this.M book
‘The teacher is making Kemal read this book.’ (Yakut, 2013, 33a)

c. oratman ki ti-qarri lala kitab mi¸sa kemal teacher be.3F 3F-read.CAUS this.M book to Kemal
‘The teacher is making Kemal read this book.’ (Yakut, 2013, 33b)

Examples in (16) illustrate the behavior in cases where the causee is realized as a DP. As seen in (16-c), the DP causee raises to become the grammatical subject, and raising the theme leads to ungrammaticality, as in (16-d).
Causatives in Sason Arabic

(16) a. leyla qar-e alu kitabād
    Leyla read.PST-3F these.M books
    ‘Leyla read these books.’

b. qarri-tu leyla alu kitabād
    read.CAUS-1SG Leyla these.M books
    ‘I made Leyla read these books.’

c. leyla in-qarr-e alu kitabād (mi oratman)
    Leyla PASS-read.CAUS-3F these.M books (by teacher)
    ‘Leyla was made to read these books by the teacher.’

d. *alu kitabād in-qarr-o leyla (mi oratman)
    these.M books PASS-read.CAUS-3PL Leyla (by teacher)
    Intended: ‘The books were made (by the teacher) to be read by Leyla.’

On the other hand, when the causee is a PP as in (17), it is the theme argument that ends up as the grammatical subject, as such shows verbal agreement.

(17) a. leyla qar-e alu kitabād
    Leyla read.PST-3F these.M books
    ‘Leyla read these books.’

b. qarri-tu alu kitabād miṣa leyla
    read.CAUS-1SG these.M books to Leyla
    ‘I made Leyla read these books.’

c. alu kitabād in-qarr-o miṣa leyla (mi oratman)
    these.M books PASS-read.CAUS-3PL to Leyla (by teacher)
    ‘These books were made (by the teacher) to be read by Leyla.’

Example (18) demonstrates that “give” causatives pattern as their geminate counterparts, where the causee is expressed as a PP.

(18) a. ım-mu ade xassil alu potad miṣa kemal
    mother-his gave.INF these clothes to Kemal
    ‘His mother made Kemal was these clothes.’

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5 Erguvanlı-Taylan (2017) mistakenly suggests that passives in SA do not allow ‘by’-phrases. See for instance Yakut (2013) for several examples of passives with overt ‘by’-phrases, including (50-a), as well as many examples in this paper.

6 The same restriction regarding passivization is observed in ditransitives which show dative alternation in Arabic varieties (including in SA). See e.g. Camilleri et al. 2014 for discussion of ditransitives in Egyptian Arabic, Hijazi Arabic and Maltese.
b. *mişă kemal, im-mu ad-id-u xassil mişă kemal
   to Kemal mother-his gave-3F-3M wash.INF these clothes
   Intended: ‘To Kemal, his mother made him wash these clothes.’

The contrast between (16) and (17) shows that the higher embedded DP argument raises to become the promoted subject. “Give” causatives, which only allow a PP causee, pattern as their geminate counterparts, in that it is only the theme argument that can be raised to become the grammatical subject, as in (19).

(19) a. ams adi-tu dolab-ad-i mişă tamirci addil
    yesterday gave.3PL shelf-PL-my to repairman fix.INF
    ‘Yesterday, I had my shelves fixed.’

b. ams dolab-ad-i ln-ado mişă tamirci addil (mi-nni)
    yesterday shelf-PL-my PASS-gave.3PL to repairman fix.INF by-me
    ‘Yesterday I made the repairman fix my shelves.’

   (‘Yesterday, my shelves were made fixed by the repairman by me’)

c. *ams (mişă) tamirci ln-ada dolab-ad-i addil (mi-nni)
    yesterday (to) repairman PASS-gave.3M shelf-PL-my fix.INF by-me
    ‘I made the repairman fix my shelves yesterday.’

   (Intended: ‘Yesterday, the repairman was made fix my shelves by me’)

To summarize, the theme of the embedded verb can raise over PP causee headed by preposition mişă ‘to’, and become the grammatical subject. It is possible for the causee to raise as well. Crucially, the causee must be DP, and not PP. Given this background, we will argue that the embedded event exhibits active-passive-like alternation, and that the PP causee in both geminates and the GC is an adjunct like a ‘by’-phrase, while the DP causee is an argument.

Let us turn to diagnostics for the active-passive alternation in the geminates and the passive structure for the GC, and the adjunct status of the PP. The evidence comes from (i) the interpretation in the absence of the causee, (ii) sluicing, (iii) nonpassivizable idioms, and (iv) secondary
predicates.

3.1 The interpretation of the null causee

The causee is optional, and the null causee is interpreted as existential (like a missing ‘by’-phrase) rather than pronominal (like a pro-dropped argument). Consider (20).

(20) leyla qarr-e alu kitabad
  Leyla read.CAUS-3F these.M books
  YES: ‘Leyla made someone read these books.’
  NO: ‘Leyla made him/her/them read the books.’

The interpretation of the null causee as existential also explains the grammaticality of (21-a) only in the absence of a DP causee. This is because the absence of a DP causee indicates that it is not projected, which in turn allows the theme argument to be raised. On the other hand, the raising of the theme is possible regardless of whether a PP causee is realized or not, as seen in (21-b), in line with the adjuncthood status of the PP.

(21) a. alu kitabad in-qarr-o (*Leyla) (mı oratman)
    these.M books PASS-read.CAUS-3PL (*Leyla) (by teacher)
    ‘The books were made (by the teacher) to be read by Leyla.’

b. alu kitabad in-qarr-o (mışa leyla) (mı oratman)
    these.M books PASS-read.CAUS-3PL (to Leyla) (by teacher)
    ‘The books were made (by the teacher) to be read (by Leyla).’

The same interpretation is observed in the GC as well, as such the absence of the PP causee leads to an existential reading. Consider (22).

(22) a. ams dolab-ad-i in-ado mişa tamirci addil mı-nni
    yesterday shelf-PL-my PASS-gave.3PL to repairman fix.INF by-me
    ‘Yesterday I made the repairman fix my shelves.’

b. cf. ams dolab-ad-i in-ado addil mı-nni
    yesterday shelf-PL-my PASS-gave.3PL fix.INF by-me
    ‘Yesterday I made someone fix my shelves.’
3.2 Sluicing

Another reason to think that geminates exhibit an active-passive alternation comes from ‘sluicing’. While VP ellipsis may in some cases allow voice mismatching, sluicing does not (Merchant, 2013), as shown in (23).

(23) a. You may want to install that now if it isn’t already.
   b. This system can be used by anyone who wants to.
   c. *Joe was murdered, but we don’t know who.
   d. *Someone murdered Joe, but we don’t know who by.

Sason Arabic is no exception to this generalization. VP ellipsis allows voice mismatch, as indicated in (24), whereas sluicing disallows voice mismatch, which is shown in (25).

(24) a. kemal kul çax i-xsel potad ta bad ma kınno.
   Kemal every time 3M-wash clothes if yet not are
   ‘Kemal washes the clothes every time if they are not already.’
   b. ala bilgisayar itx in-fıde mi ande le irillu.
   this.M computer can PASS-open by who that wants
   ‘This computer can be turned on by anyone who wants to.’

(25) sadqe le boş samaq in-qafal-o, hama mi-arafe *(mi) ande
   believed.3F that many fish PASS-caught-3PL but NEG-knew.3F *(by) who
   ‘She believes many fish to have been caught, but she didn’t know *(by) who.’

Turning to geminates, we see that the embedded clause with a DP causee behaves like a canonical active for sluicing, as in (26-a), such that the remnant cannot be headed by a preposition. On the other hand, with a PP causee, the embedded clause behaves as passive for sluicing, as illustrated in (26-b).

(26) a. leyla qarr-e nes-ma alu kitabad, hama m-o-re (*mişa) ande
   Leyla read.CAUS-3F person-a these.M books, but NEG-1SG-know to who
   ‘Leyla made someone read these books, but I don’t know who.’
b. leyla qarr-e alu kitabad mışa nes-ma, hama m-o-re
Leyla read.CAUS-3F these.M books to person-a, but NEG-1SG-know
*(mış) ande
to who
‘Leyla had these books read by someone, but I don’t know by who.’

Expectedly, in the GC, the embedded clause behaves as passive.

(27) leyla ad-e alu potad mışa nes-ma xassil, hama m-o-re
Leyla gave-3F these.M clothes to person-a wash.INF, but NEG-1SG-know
*(mış) ande
to who
‘Leyla had these clothes washed by someone, but I don’t know by who.’

It is indeed possible to have different interpretations in the GC depending on whether sluicing targets the main clause or the embedded clause, as shown in (28). In (28-a), the remnant mı ande “by who” indicates that the sluice can only target the matrix clause, an impersonal passive, not the caused event “build”. In, (28-b), the remnant mışa ande “to who” indicates that it can only target the caused event “build” in the complement of “give”. Note that in either interpretation, leaving out the preposition on the remnant results in ungrammaticality. Consider (28-c).

(28) a. mı-ada beyt mıșa nes-ma addil, hama m-ore mı ande
PASS-gave house to person-a build.INF but NEG-know.1SG by who
‘It was made someone build the house, but I don’t know by who’

YES: who made somebody build the house
NO: who built the house

b. mı-ada beyt mısha nes-ma addil, hama m-ore mısha ande
PASS-gave house to person-a build.INF but NEG-know.1SG to who
‘It was made someone build the house, but I don’t know by who’

YES: who built the house
NO: who made somebody build the house

c. mı-ada beyt mısha nes-ma addil, hama m-ore *(mısha / mı) ande
PASS-gave house to person-a build.INF but NEG-know.1SG (to / by) who
The sluicing test demonstrates that geminates exhibit an active-passive alternation, whereas the GC behaves as passive for sluicing.

3.3 Nonpassivizable idioms

SA has a class of nonpassivizable idioms, as in (29). These idioms are another test for the active-passive alternation (cf. Kayne 1975; Folli and Harley 2007).

(29) a. kemal qaraf faż le şeytan
    Kemal broke.3M leg of devil
    ‘Kemal finally got lucky.’ (lit. broke the devil’s leg)

b. faż le şeytan in-qaraf mı kemal leg of devil PASS-broke.3M by Kemal
    ‘The devil’s leg was broken by Kemal.’
    ‘*Kemal finally got lucky.’

These idioms may occur in geminate causatives only in the case of a DP causee, as in (30-a), but not a PP causee, (30-b).

(30) a. nihayet qarraf-tu kemal faż le şeytan
    finally broke.CAUS-1SG Kemal leg of devil
    ‘I finally made Kemal get lucky.’ (lit. broke the devil’s leg)

b. nihayet qarraf-tu faż le şeytan (mı şa kemal)
    finally broke.CAUS-1SG leg of devil to Kemal
    ‘I finally had the devil’s leg broken by Kemal.’

    NOT: Kemal finally got lucky.

These idioms are also not possible in the GC, as seen in (31).

(31) adi-tu faż le şeytan (mı şa kemal) qar
    gave.CAUS-1SG leg of devil to Kemal break.INF
    ‘I finally had the devil’s leg broken by Kemal.’

    NOT: Kemal finally got lucky.

Idioms of this sort contrast with passivizable idioms, illustrated in (32).
Unlike non-passivizable idioms, which require a DP causee, such idioms impose no restriction, as illustrated in (33) for geminates and in (34) for the GC.

(33)  
(a) imm-u haray-e Leyla ro le Kemal mother-his burned.CAUS-3F Leyla heart of Kemal  
‘His mother made Leyla break Kemal’s heart.’

(b) imm-u haray-e ro le Kemalmı¸ sa Leyla mother-his burned.CAUS-3F heart of Kemal to Leyla  
‘His mother had Kemal’s heart be broken (by Leyla).’

(34) imm-u ad-e ro le Kemalmı¸ sa Leyla harx mother-his gave-3F heart of Kemal to Leyla burn.INF  
‘His mother had Kemal’s heart be broken (by Leyla).’

The contrast between passivizable and non-passivizable idioms demonstrate that geminates with a DP causee behave as active, thus are compatible with nonpassivizable idioms, whereas those with a PP causee behave as passive, thus are not. The PP causee in the GC patterns like its geminate counterpart.

3.4 Secondary Predicate Licensing

Depictives further support the active-passive alternation in geminates. In SA, depictives require a binder to be licit: accordingly, they are not allowed in passives even when the agent is realized as a PP, as shown in (35) and (36).

(35)  
(a) nes-ma, amal arabā (sarxoši).  
person-a drove car (drunk)  
‘Someone drove the car drunk.’
b. araba in-amal-e (??sarxoş) (mi nes-ma).
car,F PASS-drove-F (??drunk) by someone
‘The car was driven drunk by someone.’

(36) a. kemalı kar-a xanni (sarxoşı).
Kemal wrote-3M song (drunk)
‘Kemal composed the song drunk.’

b. xanni in-kara (??sarxoş) (mi nes-ma).
song.M PASS-wrote.M (??drunk) by someone
‘The song was composed drunk by someone.’

Secondary predicates are not licensed with the GC, (37), but are compatible with geminates only when the causee is a DP, as in (38). Note that in (38-b) Clitic Left Dislocation (CLLD) is used to control for how the causee is introduced.

(37) GC: Depictives Impossible

   a. nanaı mi-na-di daq ziþar-na eₖ (sarxoşı/??k) .
    we NEG-1PL-give beat.INF children-our (drunk)
    ‘We don’t let anyone beat our children drunk.’

   b. beaqıl ye dar hamıl haþîş (??bitkin).
    unwise cop.3SG give carry.INF grass (??tired)
    ‘It would be unwise to make someone carry the grass tired.’

(38) Geminates

   a. nanaı qarri-na kemalı kitab-na (sarxoşı/k).
    we read.CAUS-1PL Kemal book-our (drunk)
    ‘We made Kemal read our book drunk.’ Depictives Possible with DP causee

   b. haþîş nanaı hammıl-na-u eₖ (sarxoşı/??k).
    grass we carried.CAUS-1PL-3M (drunk)
    ‘The grass, we made someone carry it drunk.’ Depictives Impossible with null causee

   c. nanaı hammıl-na haþîş miþa iþciyad (sarxoşı/??k).
    we carried.CAUS-1PL grass to workersₖ (drunk)
    ‘We made the workers carry the grass drunk.’ Depictives Impossible with PP causee

The diagnostics employed in this section demonstrate the existence of an active-passive-like alternation for geminate causatives, similar to “make” causatives (AUTHOR(S) 2019), and a
passive structure for the GC. The DP causee is an argument, whereas the PP causee in both
geminates and the GC is an adjunct like a ‘by’-phrase. Given the active-passive-like alternation, a
straightforward conclusion to draw is the presence of a canonical VoiceP. However, the next section
contends that this VoiceP differ from the canonical VoiceP, e.g. the VoiceP in the MC, in several
respects, as such calls for identifying it as a separate category.

4. The analysis: Applicative VoiceP

In this section, we argue that although the embedded event in geminates and the GC does contain a
second VoiceP, it is not a canonical VoiceP, but an applicative VoiceP. This is followed by the tree
configurations for the geminates and the GC.

This applicative VoiceP assigns a different $\theta$-role (causee versus initiator); as such (i)
instrument phrases, (ii) agent-oriented adverbs, or (iii) agent-oriented comitatives cannot be
associated with the embedded causee. Moreover, (iv) the causee is introduced with a different
preposition than canonical agents are introduced with. We compare the properties of geminates
and the GC with those of the MC, which indeed embeds an agentive, thematic VoiceP.

4.1 Instrument phrases

Instrumentals are diagnostics for an external argument layer (i.e. a Voice layer). They tend to be
banned from the same environments as $by$-phrases (Fillmore, 1968; Bruening, 2013; Alexiadou
et al., 2015). For instance, in (39-b) the instrument reading for ‘with hammers’ is not available in
the anticausative/unaccusative, whereas it is available in the passive, (39-a).

(39) a. bina in-faş-e mi işçiyad wara çakuçad
   apartment PASS-demolish-3F by employees with hammers
   ‘The apartment was demolished by the employees with hammers.’

   b. *bina in-qalab-e mi rua wara çakuçad
       apartment PASS-fall.over-3F by itself with hammers
       ‘The apartment fell over by itself with hammers.’

As discussed in AUTHOR(S) 2019, instrumentals can modify the action of the implicit agent in
“make” causatives (MC), which points to the presence of the embedded agent. (40). Note that depending on the felicity of the context, instrument phrases are ambiguous with respect to whether they refer to the agent of causation or the implicit embedded agent, as in (40-b).

(40) a. aya sa hazd hasiş wara mazgun-ma.
   village.lord made.3M cut.INF grass with sickle-a
   ‘The village lord had the grass cut with sickles.’

   b. kemal sa buaş sir beyt wara sope
   Kemal made.3M paint do.INF house with stick
   ‘Kemal, with the stick, had [someone paint the house].’
   ‘Kemal had [someone paint the house with the stick].’

Instrument phrases are also possible in the geminates and the GC, yet unlike the MC, they only pick out the causer in these two constructions. Consider (41) and (42) for geminates and the GC, respectively.

(41) a. im-mu xassle hasan potad wara furça gbir-e
   mother-his washed.CAUS.3F Hasan clothes with brush big-F
   ‘His mother made Hasan wash the clothes with a big brush.’
   YES: His mother used the brush [to force Hasan to do washing possibly with another instrument].

   NOT: Hasan used the brush.

   b. im-mu xassle potad misha hasan wara furça gbir-e
   mother-his washed.CAUS.3F clothes to Hasan with brush big-F
   ‘His mother made Hasan wash the clothes with a big brush.’
   YES: His mother used the brush ...

   NOT: Hasan used the brush.

(42) im-mu ade lalu potad misha xassil wara furça gbir-e
   mother-his gave.3F these clothes to Hasan wash with brush big-F
   ‘His mother made Hasan wash the clothes with a big brush.’
   YES: His mother used the brush ...

   NOT: Hasan used the brush.
4.2 Agent-oriented adverbs

Agent-oriented adverbs in SA provide another testing ground with respect to the θ-role the external argument of the embedded event bears (Ernst 2001; Matsuoka 2013, i.a.). In the MC, these adverbs can modify the action of the embedded agent, as seen in (43), and may also be ambiguous as to whether they modify the action of the matrix agent or the embedded agent, (43-b).

(43) a. bolum tı-si mez sınavad le qabul wara diqqat.
department 3F-make look.INF tests of acceptance with care
‘The department makes someone check acceptance tests carefully.’

b. aya sa hazd haşiş bı sabır.
village.lord made cut.INF grass with patience
‘The village lord made [someone cut the grass patiently].’

‘The village lord, patiently, made [someone cut the grass].’

On the other hand, no agent-oriented adverbs can be associated with the causee in either geminates, as in (44), or the GC, as in (45); they exclusively target the causer.

(44) a. oratman ki tı-qarrı kemal lala kitab bı sabır
teacher be.3F 3F-read.CAUS Kemal this.m book with patience
‘The teacher is making Kemal read this book patiently.’

YES: The teacher is patient.
NOT: Kemal is patient.

b. oratman ki tı-qarrı lala kitab mışa kemal bı sabır
teacher be.3F 3F-read.CAUS this.m book to Kemal with patience
‘The teacher is making Kemal read this book patiently.’

YES: The teacher is patient.
NOT: Kemal is patient.

(45) ım-mu ade lalu potad mışa kemal xassil bı sabır
mother-his gave.3F these clothes to Kemal wash.INF with patience
‘His mother made Kemal wash these clothes patiently.’

YES: His mother was patient.
NOT: Kemal was patient.
4.3 Agent-oriented comitatives

Agent-oriented comitatives indicate that the agent had help from the comitative in performing the event. They tend to pattern with instrument phrases and agent-oriented adverbs in picking out an external argument layer (Bruening, 2013; Alexiadou et al., 2015). As such, the comitative reading that is available in (46-a) is lost with unaccusatives, as in (46-b).

(46) a. bina in-faṣṣ-e wara sırra fi-ya
apartment PASS-demolish-3F with burglar in-it.F
‘The apartment was demolished with the burglar inside.’
(the burglar was helping with the demolishing from inside)

b. bina in-qalab-e wara sırra fi-ya
apartment NACT-fall over-3F with burglar in-it.F
‘The apartment fell over with the burglar inside.’
(the burglar was inside when the building fell over)

Turning to the MC, we see that the comitative reading is also available in this construction, (47), and the ambiguity of modification regarding the embedded or matrix clause is observed with comitatives as well, as seen in (47-b).

(47) a. kemal sa hamıl mase wara hasan
Kemal made carry.INF table with Hasan
‘Kemal made someone carry the table with Hasan.’
(Hasan helped carry the table)

b. aya sa hazd haṣṣıṣ wara cinarad.
village.lord made cut.INF grass with neighbors
‘The village lord made [someone cut the grass with the neighbors].’

‘The village lord, with the neighbors, made [someone cut the grass].’

In the case of geminates and the GC, however, the comitative reading is not available with the causee, but only with the matrix causer.
Thus far, we have seen that instrumentals, agent-oriented adverbs and comitatives point to the presence of a thematic Voice layer in the embedded event for the MC, but to its absence for geminates and the GC.

4.4 Choice of the preposition

Another aspect the causee differs from the canonical VoiceP Initiator relates to the choice of the preposition heading the PP adjunct. As shown in (50), the PP adjunct in both short passives and the MC are headed by the preposition *mı* ‘by, from’.

(50) a. ala cam mı kemal in-qaraf bı-l-qasti. 
   this glass by Kemal PASS-broke.3M with-the-intention
   ‘This glass was broken by Kemal deliberately.’

   b. kemal sa xassil potad mı mara-ma pir-e. 
   kemal made.3M wash.INF clothes by woman-a old-F
   ‘Kemal had the clothes washed by some old woman.’
However, as seen throughout the paper, the PP adjunct causee in both geminates and the GC is headed by preposition *muṣa* ‘to, for’.

These diagnostics show that although the embedded event involves an active-passive alternation in the geminates, and a passive configuration in the GC, this embedded VoiceP assigns a different θ-role (causee versus initiator) than the canonical VoiceP.

### 4.5 Tree structures for geminates and the GC

We argue that an analysis along the lines of Legate’s (2014) Acehnese proposal could be extended to the gemination and the GC strategies in SA. This hypothesis correctly predicts the properties of these two constructions and explains their contrast with the MC. As opposed to a generalized demotion head/operation, Legate (2014) proposes an alternative analysis of passive, in which the passive is a variant of a functional head that introduces a DP in its specifier, a configuration that could be common to both VoiceP and ApplP (see also Anagnostopoulou 2003, Alexiadou et al. 2006, Schäfer 2012 for the suggestion that an applicative head introduces the non-canonical external arguments, i.e. oblique causers. cf. Pylkkänen 2008).

One prediction of this analysis is that an active-passive-like alternation should be possible on Appl as long as the language in question allows the existential closure to apply to the Appl head and has a PP with the right semantics. Similar to its Voice counterpart in certain circumstances, this passivization does not necessarily end up with a morphological reflex (e.g. Harley 2017; Pitteroff 2014, 2015). The active ApplP and the two possible configurations of passive ApplP (from Legate 2014) are illustrated in (51) and (52), respectively.
The causee may be generated as a DP in Spec, ApplP, and must become the grammatical subject when passivized (see e.g. Rackowski and Richards (2005); Legate (2014) for high ApplP in Austronesian languages). It receives a causee $\theta$-role from the Appl head, as in (51). Alternatively, the causee may be introduced like the initiator in the canonical passive: in a PP adjunct, in which the P assigns a causee $\theta$-role to its DP complement, this causee being tied semantically to the causee $\theta$-role introduced by Appl, as in (52). In this passive variant, it combines with a PP headed by a different preposition from the canonical passive ($\textit{mi} ‘from, by’$ versus $\textit{miša} ‘for, to’$). In the passive ApplP, the PP adjunct may be left out, in which case the causee is interpreted existentially.
on the Appl head, as illustrated in (52-b).\textsuperscript{7}

We argue that geminates and the GC in SA are on par with indirect causatives in Acehnese, as such the causee is generated in (active-passive) ApplP, and not in (active-passive) VoiceP, which is the case for the “make” causatives. Therefore, SA geminate causatives that apply to transitive bases have active and passive ApplP structures, as in (51) and (52). The causatives formed with “give”, on the other hand, only have the passive ApplP configuration.\textsuperscript{8}

We note that Sason Arabic is identical to other Arabic varieties, which have been argued to be high Applicative languages. For instance, Haddad (2014) shows that non-argumental attitude datives, as he calls them, in Lebanese Arabic may occur with unergative predicates (see also Al-Zahre and Boneh (2010, 2016) for the same argument in Syrian Arabic and Hebrew).

(53) a. Na:dyá štáyalit-la: şi nis\textsuperscript{5} se:ı:a
Nadia worked-her.DAT some half hour
‘Nadia worked [her] for about a half hour.’ (Haddad, 2014, 66)

b. ?ıbn Na:dyá harab-la: min l-madrase marra te:nye son Nadia escaped-her.DAT from the-school second time
‘Nadia’s son ran away [her] from school again.’ (Haddad, 2014, 88)

Following other researchers (e.g. Cuervo 2003; Boneh and Nash 2010; Bosse et al. 2012) who conclude that similar datives in other languages merge as high applicatives above vP, taking the whole vP event as their argument, Haddad (2014) argues that such datives merge also as high

\textsuperscript{7} Similar to the MC, “give” causatives and the GC also lack the full CP layer in the embedded clause. This is illustrated by the unavailability of CLLD to the right of ‘give’, as seen in (i).

(i) *ams aýa ada hasý muşa işçiyad hazd-u.
yesterday landlord gave grass to employees cut-3M
‘Yesterday the landlord made the grass, the workers cut it.’

This contrasts with (10-b), in which the theme is CLLD-ed to the left of the causativizing light verb, presumably somewhere in CP. Note also the scrambling of the causee.

\textsuperscript{8}It is a non-trivial question why GC has only the passive ApplP, and not the active one. Note that same pattern is also observed in Austronesian languages; for instance, several cases of applicatives (Acehnese causees included) for which the active applicative is only possible if Voice is passive (or object voice), but the passive applicative is unrestricted. Thus, it seems like there this is more than chance. This asymmetry might be because an active applicative requires licensing of an additional argument, whereas the passive applicative does not. We put a detailed discussion aside.
applicatives in Lebanese Arabic. Sason Arabic also has such affected datives as well, as illustrated in (54). We take this to mean that SA also is a high applicative language.

(54) a. kemal, şarab-lu/jk mayn
    Kemal drank-him water
    ‘Kemal drank [him] water.’

   b. leyla  boş   faqaz-i-nni ams
    Leyla much ran-3f-me yesterday
    ‘Leyla ran [me] a lot yesterday.’

The difference between the causee of unergative and transitive bases follows from and in fact provides further support to the notion of passive in Legate and Akkuş (2017). As mentioned above, the indirect causee of a transitive can be introduced as a DP or PP (cf. (15)), whereas the causee of an unergative may only be a DP, as in (55).

(55) kemal ku ifaqqez (*müşa) kelt
    Kemal BE.3M 3M.cause.run to dog
    ‘Kemal is making the dog run.’ (Yakut, 2013, 34b)

We take this to be a low-level language-specific property of SA, in terms of what types of predicates personal passivization can apply to. For instance, Legate and Akkuş (2017) show that passive is limited in application to transitive predicates with a thematic subject and structurally case marked object in Turkish, whereas unergative or unaccusative predicates are not passivizable. Sason Arabic appears to mark this distinction in the case of arguments in ApplP. Therefore, the causee of embedded unergative predicate fails to meet the requirements for passivization, as such cannot be expressed as a PP, whereas the causee of a transitive predicate can be realized in either option.

To summarize this section, we have seen that geminate causatives that apply to transitive bases and GC embed an ApplP, and not a VoiceP. Moreover, ApplP shows an active and passive alternation, just like the VoiceP. This explains the realization of causee as well as certain syntactic properties.
5. Conclusions

This paper has investigated several causative constructions in Sason Arabic and discussed their theoretical implications. It has shown that gemination causatives and “give” causatives provide independent evidence for a prediction deriving from Legate’s (2014) analysis of the passive. Legate (2014) takes passive to be a variant of a functional head that introduces a DP in its specifier, a configuration that is common to both VoiceP and ApplP. This predicts that an active-passive-like alternation should be available in ApplP as well.

We have demonstrated that these two causative strategies do embed a second VoiceP, however this VoiceP exhibits distinct behavior from the canonical, agentive VoiceP, which warrants identifying it as a distinct category. As such, the causee in both constructions is generated in applicative Voice. Furthermore, a variety of diagnostics show that geminates manifest an active-passive alternation, whereas “give” causatives embed only a passive ApplP. The two constructions are also contrasted with “make” causatives, which are shown to embed a canonical, agentive VoiceP.

References


187–211. Mouton de Gruyter.


Folli, Raffaella, and Heidi Harley. 2007. Causation, obligation, and argument structure: On the


Legate, Julie Anne, and Faruk Akkuş. 2017. Turkish passive impersonals. Talk delivered at the 48th meeting of the North East Linguistic Society (NELS 48), University of Iceland, Iceland.


