On Causee in Sason Arabic

Abstract. This paper aims to understand the syntax of causative constructions in Sason Arabic. It demonstrates that in geminate causatives and 'give'-causatives, the causee is introduced in CauseeP, unlike the embedded agent in 'make'-causatives, which embed a thematic VoiceP. Despite differing from $Voice^0$ in several respects, $Causee^0$ also exhibits an active-passive-like alternation, providing independent evidence for an analysis of the passive that treats it as a subtype of the Voice head (Legate 2014; Legate et al. 2020; Akkuş 2021a). The paper further distinguishes between geminates and 'give'-causatives on the basis of the (in)compatibility of the causee with an applied argument. In geminates, $Causee^0$ and $Appl^0$ are bundled, and the same argument bears two θ-roles, whereas in other causative constructions, $Causee^0$ and $Appl^0$ remain separate, with each argument bearing a distinct θ-role.

1. Introduction

Causative constructions have provided significant insights into various issues in linguistic theory, including case marking, mono-/bi-clausality, binding domains and voice alternations (e.g., Kayne 1975). This paper examines the syntax of several indirect causative constructions in Sason Arabic (Semitic, southeastern Turkey), focusing on the type of projection in which the embedded agent is introduced, thus contributing to the typology (cf. Zubizarreta 1985; Guasti 1996; Legate 2014; Harley 2013, 2017a; Key 2013; Sigurðsson and Wood 2020), and voice alternations that this projection may exhibit, particularly in connection with Legate's (2014) analysis of passives.

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, Legate et al. 2020, Akkuş

2021a). As stated in Legate (2014), one prediction of this analysis is that an active-passive-like alternation should be possible on another functional head other than Voice as long as the language in question allows the existential closure to apply to the head in question and has a PP with the right semantics. She argues that in Acehnese, the causee is introduced in the specifier of ApplP or applicative Voice, which manifests an active-passive alternation. Moreover, similar to its Voice counterpart in certain circumstances, this passivization does not necessarily end up with a morphological reflex. In this paper, I argue that causative constructions in an unrelated language, Sason Arabic, follow from and in fact provide independent evidence for Legate's (2014) prediction regarding the active-passive-like alternation on a functional head other than Voice.

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 *mışa* 'for, to', as in (1-b) and (1-c), respectively.[1]

(1) a. kemal ku   i-qri   lala   kitab.
         kemal PROG.3M 3M-read this.M book
         'Kemal is reading this book.'

     b. oratman ki   tı-qarri   kemal lala   kitab.
         teacher PROG.3F 3F-read.CAUS Kemal this.M book
         'The teacher is making Kemal read this book.'   (Yakut 2013:33a)

     c. oratman ki   tı-qarri   lala   kitab mışa kemal.
         teacher PROG.3F 3F-read.CAUS this.M book to   Kemal
         'The teacher is making Kemal read this book.'   (Yakut 2013:33b)

In contrast, a periphrastic causative construction, formed with the verb 'give', allows the causee to be introduced only as a PP headed by *mışa* 'for, to'. Consider (2).

(2) ad-o   addil   dolab-ad-en   mışa tamirci.
     gave-3PL fix.INF shelf-PL-their to   repairman
     'They made the repairman fix their shelves.'

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[1]Abbreviations: CAUS = causative, COP = copula, F = feminine, INCH = inchoative, INF = infinitive, IPFV = imperfective, M = masculine, NEG = negation, OBL = oblique, PASS = passive, PFV = perfective, PL = plural, PROG = progressive, SG = singular, 1 = first person, 2 = second person, 3 = third person.

(Lit: They gave their shelves to the repairman to fixing)[2]

I argue that the causee in (1) - (2) is not introduced in the embedded canonical VoiceP, but in a distinct projection, which I identify as *CauseeP*. I apply various syntactic and semantic diagnostics, such as secondary predicate licensing, sluicing, nonpassivizable idioms, passivization facts and the type of θ-role the causee is assigned. The Causee head may undergo an active-passive alternation, whereby in the passive the causee θ-role may be expressed in a PP adjunct or be existentially closed. The two constructions, however, differ in (at least) one important aspect. Geminates disallow the introduction of an applied argument in the embedded structure, whereas this is permitted in 'give'-causatives. I capture this via the bundling of Causee^0 and Appl^0 in the gemination strategy. As such, the same argument bears two θ-roles in the geminates, whereas these heads are separate in the 'give'-causatives (in the sense of Pylkkänen 2008; Harley 2017a). This provides an important diagnostic that can applied to causative constructions crosslinguistically to help determine the status of the causee and its projection.

The paper is organized as follows: §2 introduces the causative constructions in Sason Arabic and briefly discusses their properties. §3 provides a variety of diagnostics demonstrating that geminates manifest an active-passive-like alternation, whereas "give" causatives exhibit a passive structure. §4 argues that both embed a distinct projection, which assigns a Causee θ-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". §5 provides the available configurations, and discusses the differences between the two constructions in terms of co-occurrence with an applied argument. §6 summarizes and concludes the paper.

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[2]An anonymous reviewer asks whether a verb 'adal' exists in the language based on the perfective form 'addal' of the verb 'to fix'. The answer is no. This suggests that not all instances of gemination are derived from a non-geminate counterpart. Similarly, as noted in fn. 4, not all instances of gemination solely yield causative interpretation. This is a rather unremarkable phenomenon since in languages such as Japanese (Wood and Marantz 2017) or Turkish, there are instances of causative morphemes which do not produce causative interpretation.

2.   Causatives in Sason Arabic

This section introduces the causativization strategies in SA, which will be examined in a comparative manner in the rest of 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 in most cases (Kurylowicz 1957, Saad 1982, Hallman 2006, Fassi Fehri 1987). This property, which is found primarily in Classical Arabic or to a very limited extent in colloquial varieties, also holds in SA although it is again not as prevalent.[3] Consider (3) and (4).

(3)   a.   lāke tal-e.
           stain came.out-3F
           'The stain came out.'

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

(4)   a.   şelç zaɣ.
           snow melted.3M
           'Snow melted.'

      b.   zaɣ-tu   şelç.
           melted-1SG snow
           'I melted snow.'

The second strategy to form causatives in Arabic is gemination (Saad 1982, ch. 3, Benmamoun 1991, Hallman 2006). 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) are examples from Modern Standard Arabic from Hallman 2006 (see also (13) for a parallel example from Sason Arabic).

(5)   a.   xalā (*be vacant*) → xallā (*to vacate*, *cause sb to vacate sth)

      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* 'for, to', as in (6-b) and (6-c), respectively.[4]

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[3]Saad (1982, 66) states that 90 or so verbs belong to this category in which FaMaLa pattern is derived from FaMiLa, FaMuLa or FaMaLa patterns.

[4]As in other Semitic languages, not all instances of gemination in SA result in a causative reading, thus the *faʕʕal* template is used both for causative verbs as well as for basic entries in the lexicon, e.g. *mawwal* 'finance',

(6) a. fatma qa<u>d</u>-e   ras-a.
         Fatma cut.PFV-3F hair-her
         'Fatma cut her hair.'

     b. fatma qa<u>tt</u>-e   kuafor   ras-a.
         Fatma cut.CAUS.PFV-3F hairdresser hair-her
         'Fatma had the hairdresser cut her hair.'

     c. fatma qa<u>tt</u>-e   ras-a   mışa kuafor.
         Fatma cut.CAUS.PFV-3F hair-her to   hairdresser
         'Fatma had the hairdresser cut her hair.'   (Erguvanlı-Taylan 2017:29)

Unergative verbs may also show a geminate causative counterpart. Consider (7), in which the causee is realized as a morphologically-bound pronoun.[5]

(7) a. i-za<u>k</u>.
         3M-laugh
         'He laughs.'

     b. a-za<u>kk</u>iy-u.
         1SG-laugh.CAUS-him
         'I make him laugh.'

Unergative and transitive verbs differ in terms of how they express the causee. 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).[6]

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zayyaf 'forge', although few non-causativized verbs in SA seem to have this pattern. It is worth pointing out that the possibility of non-causative interpretation for certain entries does not mean that causativization is not derived in syntax. See Benmamoun 1991 for a syntactic approach to geminates in Moroccan Arabic. One approach would be to assume (with Arad (2003, 2005) for Hebrew, Tucker (2011) for Arabic) that within the Distributed Morphology framework, an acategorial Root is the consonantal root, and the categorizing head it adjoins to is the phonological instantiation of the template. What could be differentiating the geminate causatives from other geminated non-causative lexical items is that in the former the categorizing *v* is dominated by another *v*, which we can call v_{CAUS} (in line with the suggestion of an anonymous reviewer). Although how the morphophonology of gemination works is a significant question, the discussion falls outside the scope of this paper since the focus here is on the embedded structures in various periphrastic or morphological causatives. In this approach, in line with Pylkkänen 2002, 2008; Harley 2013, little-v is the verbalizing head and may be the locus of causative semantics, while Voice introduces the external argument.

[5]Like 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, dative and genitive-assigned pronouns surface as bound pronouns that are attached to their assigners.

[6]In Classical Arabic and in modern varieties spoken in the Arab world, the indefinite noun phrase is unmarked or is preceded by an independent indefinite particle, whereas an NP becomes definite by prefixing the definite article

(8) a. kemal a<u>m</u>al.
         Kemal worked.3M
         'Kemal worked.'

     b. a<u>mm</u>ıl-tu   (*mışa) kemal.
         worked.CAUS-1SG to   Kemal
         'I made Kemal work.'

(9) a. kelb i-f<u>q</u>ez.
         dog 3M-run
         'The dog runs/is running.'

     b. kemal ku   i-fa<u>qq</u>ez   (*mışa) kelb.
         Kemal PROG.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 causative formed with the verb 'give' (henceforth GiveC) allows the causee to be introduced only as a PP headed by *mışa* 'for, to', and the embedded verb appears in infinitival form, as illustrated in (10).

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

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

     b. ımm-a   mışa fatma şi   ad-ıd-u   addil.
         mother-her to   Fatma food gave-3F-it.M fix.INF
         'Her mother had Fatma cook.'[7]

         (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

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al-/əl-/l-. However, SA has adopted the reverse pattern, which is found in the neighboring languages, Turkish and Kurdish. That is, the definite NP is left unmarked, and the enclitic *-ma* is used to mark the indefiniteness of an NP. See Akkuş and Benmamoun (2018), Akkuş (2017) for more discussion.

[7]Note that the causee and the theme in this example are preposed, which is not the basic word order in this construction. The derivation of this example is discussed in footnote 19 after the derivation for the basic order is provided.

Benmamoun, 2018), which uses the verb *bıdın* 'give', as shown in (11).

(11)   mı   piskilet do   çekır-ın-e.
        I.OBL bicycle gave repair-INF-OBL
        'I had the bicycle repaired'

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

The other indirect causative construction is embedded under the verb 'make' (henceforth MC). As illustrated in (12-a), it is a construction with an overt embedded theme argument, but no overt causee.[8] The verb appears in infinitival form. It maintains an agentive reading where the causee is interpreted as indefinite, 'someone' or 'some people'. The causee can also be expressed as a PP headed by the preposition *mı* 'by, from', as in (12-b).[9]

(12)   a.   aɣa   sa   addil   beyt-ma
              village.lord made.3SG build.INF house-a.
              'The village lord made someone build a house.'

        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.'

This paper focuses on the properties of geminate causatives and the GiveC, mainly in comparison with the MCs, which are discussed in detail in Akkuş (2021b, To appear).[10] I argue that unlike the MCs which embed a canonical VoiceP, geminate causatives and the GiveC contain a different projection with distinct properties, specifically *CauseeP*.

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[8]See Akkuş (2021b, To appear) for the status of the null causee.

[9]Not all of these causative constructions are available or found in the grammars of all speakers or sub-varieties. For instance, geminates are the most commonly available strategy. On the other hand, 'make'-causatives that embed an infinitive are found in the grammars of a smaller group of speakers compared to 'give' causatives and 'make' that embeds a finite clause, which are also not available for all speakers. Even within the last two strategies, speakers have different preferences regarding word orders etc. In fact, speakers might have strong opinions about the constructions that are not found in their own grammars, some calling the speech forms of others as 'bad Arabic', or 'wrong Arabic' especially if they have not encountered a usage before. For the purposes of this paper, I abstract away from this significant point and present the grammars of speakers who have the relevant constructions.

[10]Sason Arabic has lost the so-called X theme *ʾistafʿala*, where the causative theme starts with ş and *t* is used to express the reflexive idea. For instance, the root *KTB* 'write' has the X pattern of the form *(ʔi)sʲtaktaba*. Arabic also has analytical causatives formed with verbs such as *jaʿala* 'to make' or *taraka* 'to let' (e.g. Saad 1982, 82; Alrashed 2012, 209-216). However these verbs embed a finite structure in which the embedded verb carries agreement. I also leave their discussion aside since it would take us too far afield.

Before proceeding with the discussion of indirect causative constructions, I briefly touch upon the structure of the geminate causatives built on unaccusative predicates. Geminates of unaccusative bases may not express an indirect causative reading (just like the ablaut strategy), similar to their counterparts in other Arabic varieties.[11] This is illustrated in (13-b), where the interpretation is direct causation.[12]
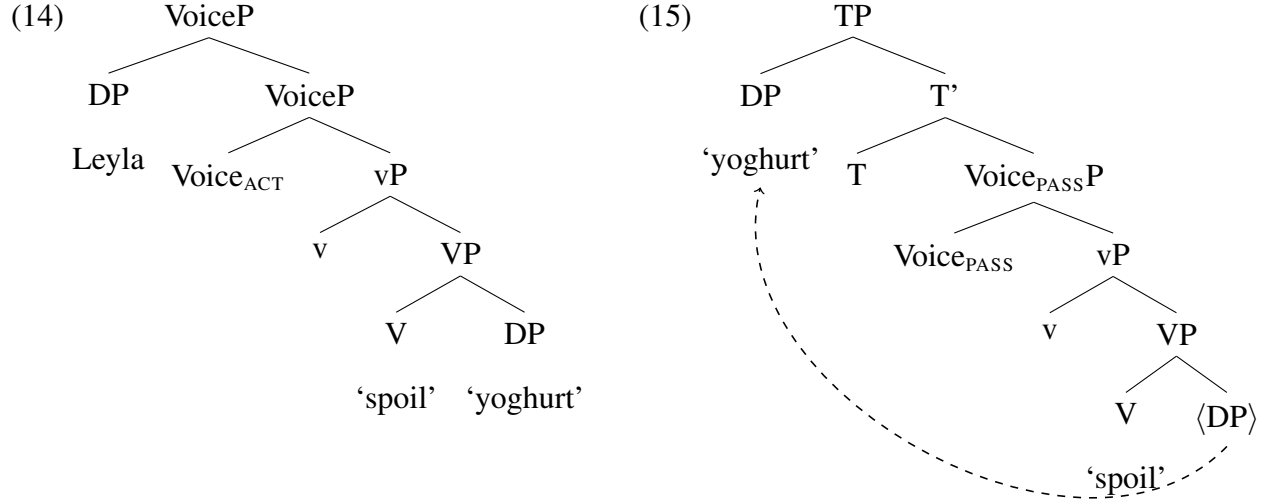
(13) a. xaser   xıṟeb.
           yoghurt spoiled.3M
           'The yoghurt spoiled.'

      b. leyla xarrıb-e   xaser.
           Leyla spoiled.CAUS-3F yoghurt
           'Leyla spoiled the yoghurt.'

           NOT: 'Leyla caused someone to spoil the yoghurt.'

      c. xaser   ın-xarrab   (mı leyla).
           yoghurt PASS-spoiled.CAUS.3M by Leyla
           'The yoghurt was spoiled (by Leyla).'[13]

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, a vP, which is specified as ablaut or geminate, and the phrase headed by the root. (14) is the structure for the active clause in (13-b), and (15) is the configuration for the passive (13-c), in which the theme raises to the grammatical subject when the Voice is passive.

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[11]A reviewer asks why SA lacks applicatives of unaccusatives. Though it is a significant issue, the present analysis makes no specific claim regarding the possibility of applicatives of unaccusatives in a given language. It is worthwhile to investigate the crosslinguistic variation regarding applicatives of unaccusatives, which are disallowed in most languages, e.g. Hiaki (Harley 2013), Turkish (Tonyalı 2015). Though see Baker (2014) for Shipibo. However, the discussion of applicatives of unaccusatives is beyond the scope of this paper.

[12]Various characterizations of 'indirect' vs 'direct' causatives have been suggested, which focus on the semantics or morphological aspects. For the purposes of this paper, I take 'indirect causative' to refer to the presence of two events in the clause, as opposed to 'direct causatives', rather than a periphrastic versus morphological causative distinction.

[13]In SA, passivization is expressed via the prefixation of a passive morpheme to predicates. The passive prefix shows an aspect-based allomorphy, realized as *in-* with imperfectives and as *ın-* with perfectives.

(14)
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                VoiceP
              /        \
            DP         VoiceP
            |         /      \
          Leyla   Voice_ACT    vP
                            /      \
                           v        VP
                                  /     \
                                 V       DP
                              'spoil'  'yoghurt'
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(15)
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                TP
              /    \
            DP       T'
            |      /    \
        'yoghurt' T    Voice_PASS P
                     /        \
               Voice_PASS      vP
                             /     \
                            v       VP
                                  /     \
                                 V      ⟨DP⟩
                               'spoil'
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3. Active-passive alternation in geminates and 'give'-causatives

This section investigates the properties of geminate causatives and give-causatives (GiveC) that apply to transitive bases. A variety of diagnostics demonstrate that geminates exhibit an active-passive alternation, similar to the MC (see Akkuş 2021b for details of the MC), and that the GiveC behaves as passive (active-passive to be elaborated on later in this section).

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 exemplified again in (16) (see also (6)).

(16) a. kemal ku   i-q<u>ri</u>   lala   kitab.
          kemal PROG.3M 3M-read.IPFV this.M book
          'Kemal is reading this book.'

      b. oratman ki   tı-qa<u>rri</u>   kemal lala   kitab.
          teacher PROG.3F 3F-read.CAUS.IPFV Kemal this.M book
          'The teacher is making Kemal read this book.'   (Yakut 2013:33a)

      c. oratman ki   tı-qa<u>rri</u>   lala   kitab mışa kemal.
          teacher PROG.3F 3F-read.CAUS.IPFV this.M book to   Kemal
          'The teacher is making Kemal read this book.'   (Yakut 2013:33b)

Examples in (17) illustrate the behavior in cases where the causee is realized as a DP. As seen in

(17-c), the DP causee raises to become the grammatical subject, and raising the theme leads to ungrammaticality, as in (17-d).

(17) a. leyla qaṟ-e   alu   kitabad.
          Leyla read.PFV-3F these.M books
          'Leyla read these books.'

      b. qarri-tu   leyla alu   kitabad.
          read.CAUS.PFV-1SG Leyla these.M books
          'I made Leyla read these books.'

      c. leyla ın-qaṟr-e   _ alu   kitabad (mı oratman).
          Leyla PASS-read.CAUS.PFV-3F   these.M books   (by teacher)
          'Leyla was made to read these books by the teacher.'[14]

      d. *alu   kitabad ın-qaṟr-o   leyla _ (mı oratman).
          these.M books   PASS-read.CAUS.PFV-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 (18), it is the theme argument that ends up as the grammatical subject, and as such shows verbal agreement.

(18) a. leyla qaṟ-e   alu   kitabad.
          Leyla read.PFV-3F these.M books
          'Leyla read these books.'

      b. qarri-tu   alu   kitabad mışa leyla.
          read.CAUS.PFV-1SG these.M books   to   Leyla
          'I made Leyla read these books.'

      c. alu   kitabad ın-qaṟr-o   _ mışa leyla (mı oratman).
          these.M books   PASS-read.CAUS.PFV-3PL   to   Leyla (by teacher)
          'These books were made (by the teacher) to be read by Leyla.'[15]

Example (19) demonstrates that the GiveC patterns like geminates with a PP causee.

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[14]Based on the absence of relevant data in her study, Erguvanlı-Taylan (2017) suggests that passives in SA do not allow 'by'-phrases. See Yakut (2013) for several examples of passives with 'by'-phrases, including (61-a), in addition to the examples in this paper.

[15]The same restriction regarding passivization is observed in ditransitives which show dative alternation in Arabic varieties (including SA, see below). Also see e.g. Camilleri et al. 2014 for discussion of ditransitives in Egyptian Arabic, Hijazi Arabic and Maltese, and Hallman 2018 for Syrian Arabic.

(19)   a.   ım-mu   ade   xassil   alu potad mışa kemal.
             mother-his gave.3F wash.INF these clothes to   Kemal
             'His mother made Kemal wash these clothers.'

       b.   *alu potad* ım-mu   ad-ıd-*en*   xassil   mışa kemal.
             these clothes mother-his gave-3F-them wash.INF to   Kemal
             'These clothes, his mother made Kemal wash them.'

       c.   **mışa kemal*, ım-mu   ad-ıd-*u*   xassil   alu   potad.
             to   Kemal mother-his gave-3F-it.M wash.INF these clothes
             Intended: 'To Kemal, his mother made him wash these clothes.'

The contrast between (17) and (18) shows that the higher embedded DP argument raises to become the promoted subject. The GiveC, which only allows a PP causee, patterns as its geminate counterpart with a PP causee, in that it is only the theme argument that can be raised to become the grammatical subject, as in (20).

(20)   a.   ams   adi-tu   dolab-ad-i mışa tamirci   addil.
             yesterday gave.1SG shelf-PL-my to   repairman fix.INF
             'Yesterday, I had my shelves fixed.'

       b.   ams   dolab-ad-i ın-ado   mışa 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.'

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

       c.   *ams   (mışa) tamirci   ın-ada   dolab-ad-i addil (mı-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 in the context of PP causee headed by the preposition *mışa* 'for, to', and become the grammatical subject. It is possible for the causee to raise as well. Crucially, the causee must be a DP, and not a PP.

Although this contrast is informative, it does not necessarily indicate an active-passive alternation. Many languages with double-object versus dative-shift for ditransitives, including English, exhibit the same asymmetry. SA also has the same hierarchy effect in ditransitives. In

a ditransitive DP-DP configuration, as in (21), only the higher DP can be passivized. (DP$_{IO}$ >

DP$_{DO}$ is the base order based on the classic diagnostics such as binding, etc).

(21)   ditransitives DP-DP

    a.   kemal qal   leyla alu   şıɣlad.
          Kemal told.3M Leyla these.M gossips
          'Kemal told Leyla these gossips.'

    b.   leyla ın-qal-e   (mı kemal) _ alu   şıɣlad.
          Leyla PASS-told-3F by Kemal   these.M gossips
          'Leyla was told (by Kemal) these gossips.'

    c.   *alu   şıɣlad ın-qal-o   (mı kemal) leyla _.
          these.M gossips PASS-told-3PL by Kemal Leyla
          'These gossips were told (by Kemal) Leyla.'

On the other hand, in a ditransitive DP-PP configuration, only the DP theme can be passivized,

(22-b), and raising the indirect object leads to ungrammaticality, (22-c).

(22)   ditransitives DP-PP

    a.   kemal qal   alu   şıɣlad mışa leyla.
          Kemal told.3M these.M gossips to   Leyla
          'Kemal told these gossips to Leyla.'

    b.   alu   şıɣlad ın-qal-o   (mı kemal) _ mışa leyla.
          these.M gossips PASS-told-3PL by Kemal   to   Leyla
          'These gossips were told (by Kemal) to Leyla.'

    c.   * (mışa) leyla ın-qal-e   (mı kemal) alu   şıɣlad.
            (to)   Leyla PASS-told-3F by Kemal these.M gossips
          'Leyla was told (by Kemal) these gossips.'

Against this backdrop, I employ other diagnostics for the active-passive alternation in the

geminates and the passive structure for the GiveC, 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 (23).

(23)   leyla qa<u>rr</u>-e   alu   kitabad.
        Leyla read.CAUS.PFV-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 (24-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, raising of the theme is possible regardless of whether a PP causee is realized or not, as seen in (24-b), in line with the adjuncthood status of the PP.

(24)   a.   alu   kitabad ın-qa<u>rr</u>-o   (*Leyla) _ (mı oratman).
              these.M books PASS-read.CAUS.PFV-3PL (*Leyla)   (by teacher)
              'The books were made (by the teacher) to be read by Leyla.'

        b.   alu   kitabad ın-qa<u>rr</u>-o   _ (mışa leyla) (mı oratman).
              these.M books PASS-read.CAUS.PFV-3PL   (to   Leyla) (by teacher)
              'The books were made (by the teacher) to be read (by Leyla).'

Another piece of evidence for the existential interpretation of the null causee is that the a pronoun in a following clause cannot refer to the implicit causee, whereas it can refer to an overt DP causee.

(25)   a.   xassal-tu   nesma$_i$ araba. *pro$_i$* boş bacarikli kan.
              washed.CAUS-1SG someone car   very talented aux.PST.3M
              'I made someone$_i$ wash the car. He$_i$ was very talented.'

        b.   xassal-tu   araba e_i. #*pro$_i$* boş bacarikli kan.
              washed.CAUS-1SG car   very talented aux.PST.3M.
              'I had the car washed e_i. #He$_i$ was very talented.'

The adjuncthood status of the PP is also supported by clefting: similar to e.g. Uzbek (Gribanova 2013), Turkish (Akkuş 2021a), Egyptian Arabic (Soltan 2019), only arguments can be clefted, and adjuncts are not licit cleft pivots in SA. This is illustrated in (26) for a grammatical subject versus the 'by'-phrase of a short passive, in which only the former can be clefted.

(26)   a.   ina kıttu   ande le adaş   sabi-ma.
            I   aux.PFV.1SG who that saw.3M boy-a
            'It was me who saw a boy.'

       b.   *mı ina kan   ande le ın-adaş   sabi-ma.
            by me aux.PFV.3M who that PASS.PFV-saw.3M boy-a
            'It was by me that a boy was seen.'

Examples in (27) demonstrate that while a DP causee can be clefted, a PP one cannot be.

(27)   a.   ina kittu   ande le leyla qarr-e   _ alu   kitabad.
            I   aux.PFV.1SG who that Leyla read.CAUS-3F   these.M books
            'It was me that Leyla made read these books.'

       b.   *mışa ina kan   ande le leyla qarr-e   alu   kitabad _.
            to   I   aux.PFV.3M who that Leyla read.CAUS-3F these.M books
            'It was by me that Leyla made these books be read.'

Note that in SA there is not a ban against clefting of prepositional phrases. For instance, the PP argument of the verb 'to put' can be clefted, (28-a), whereas the PP adjunct in (28-b) cannot be.

(28)   a.   fo mase kan   (amma) le hatti-tu   potad _.
            on table aux.3M where   that put.PFV-1SG clothes
            'It was on the table that I put the clothes.'

       b.   *fo mase kan   (amma) le nam-tu   _.
            on table aux.3M where   that slept-1SG
            'It was on the table that I slept.'

The interpretation of a null causee as existential holds in the GiveC as well, in that the absence of the PP causee leads to an existential reading. Consider (29).[16]

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[16]Note that a null recipient in ditransitives is interpreted as a pronominal rather than existential, pointing to a structural difference between causatives and ditransitives.

(29)　a.　ams　　　dolab-ad-i　　ın-ado　　　mışa 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　　ın-ado　　　 addil　 mı-nni.
　　　　　　 yesterday shelf-PL-my PASS-gave.3PL fix.INF by-me
　　　　　 'Yesterday my shelves were made by me to be fixed (by someone /# by him).'

3.2　Sluicing

Another argument for active-passive alternation in geminates comes from 'sluicing'. While VP

ellipsis may in some cases allow voice mismatching, (30), sluicing does not, (31) (Merchant, 2013).

(30)　VP ellipsis

　　　a.　You may want to install that now if it isn't already ~~installed~~.

　　　b.　This system can be used by anyone who wants to ~~use it~~.

(31)　Sluicing (adapted from Merchant 2013)

　　　a.　*Joe was murdered, but we don't know who ~~murdered him~~.

　　　b.　*Someone murdered Joe, but we don't know by who ~~he was murdered~~.

Sason Arabic is no exception to this generalization. VP ellipsis allows voice mismatch, as indicated

in (32), whereas sluicing disallows voice mismatch, which is shown in (33).

(32)　a.　kemal kul　 çax i-xsel　　 potad　 ta bad ma　kınno.
　　　　　 Kemal every time 3M-wash clothes if　yet　 NEG are
　　　　　 'Kemal washes the clothes every time if they are not already.'

　　　b.　ala　　　 bilgisayar itıx in-fíde　　　　 mı ande le　 irıllu.
　　　　　 this.M computer　can PASS-open.3M by who　that wants
　　　　　 'This computer can be turned on by anyone who wants to.'

(33)　sadqe　　　 le kitab ın-qara,　　　　hama m-o-re　　　　 *(mı) ande.
　　　 believed.3F that book PASS-read.3M but　 NEG-1SG-know　 *(by) who

---

(i)　　　 ams　　　 adi-tu　　 potad-i.
　　　　　 yesterday gave-1SG clothes-my
　　　　　 'Yesterday I gave *him/her/them* my clothes.

'She believes the book to have been read, but I don't know *(by) who.'

Note also that an implicit agent can license sluicing, as indicated in (33), but a null pronoun (*pro*-dropped argument) cannot, (34-b).[17]

(34) a. fad-a   babe wara mıfta.
          opened-3M door with key
          '(He) opened the door with a key.'   ← *requires established topic*

          # (Someone) opened the door with a key.

          # The door was opened with a key.

      b. fad-a   babe wara mıfta, #hama mı-araf-e   ande.
          opened-3M door with key,   but   NEG-knew-3F who
          '(He) opened the door with a key, #but she didn't know who.'

Turning to geminates, we observe that the embedded structure with a DP causee behaves like a canonical active for sluicing, as in (35), in that the remnant cannot be headed by a preposition.

(35) leyla qarr-e   nes-ma alu   kitabad, hama m-o-re   (*mışa) 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.'

      (Leyla caused a person to read these books, *but I don't know by whom)

With a PP causee, the embedded clause behaves as passive for sluicing, as in (36).

(36) a. leyla xassal-e   alu   potad, hama m-o-re   *(mışa) ande.
          Leyla wash.CAUS-3F these.M clothes, but   NEG-1SG-know   to   who
          'Leyla had these clothes washed, but I don't know by 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
          *(mışa) ande.
          to   who
          'Leyla had these books read by someone, but I don't know by who.'

----

[17]Given that the null causee is interpreted existentially (cf. Sect 3.1), the following arguments also follow from an active-passive alternation, and not two different argument structures. Thanks to Benjamin Bruening (p.c.) for this point.

(Leyla caused these books to be read by a person, *but I don't know who.)

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

(37)   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
        *(mışa) 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 GiveC depending on whether sluicing targets the main clause or the embedded clause, as shown in (38). In (38-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, (38-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 (38-c).

(38)   a.   ın-ada   beyt mışa nes-ma addil,   hama m-ore   mı ande.
              PASS-gave.3M house to   person-a build.INF but   NEG-1SG.know 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.   ın-ada   beyt mışa nes-ma addil,   hama m-ore   mışa ande.
              PASS-gave.3M house to   person-a build.INF but   NEG-1SG.know 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.   ın-ada   beyt mışa nes-ma addil,   hama m-ore   *(mışa / mı) ande.
              PASS-gave house to   person-a build.INF but   NEG-1SG.know (to   / by) who

The sluicing test demonstrates that geminates exhibit an active-passive alternation, whereas the GiveC behaves as passive for sluicing.

3.3   Nonpassivizable idioms

SA has a class of nonpassivizable idioms, as in (39), which serve as another test for the active-passive alternation (cf. Kayne 1975; Folli and Harley 2007).

(39)   a.   kemal qaraf   faɣz le şeytan.
            Kemal broke.3M leg   of devil
            'Kemal finally got lucky.' (lit. broke the devil's leg)

       b.   faɣz le şeytan ın-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 (40-a), but not a PP causee, (40-b).

(40)   a.   nihayet qa<u>rr</u>ıf-tu   kemal faɣz le şeytan.
            finally   broke.CAUS-1SG Kemal leg   of devil
            'I finally made Kemal get lucky.' (lit. broke the devil's leg)

       b.   nihayet qa<u>rr</u>ıf-tu   faɣz le şeytan (mışa 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 GiveC, as seen in (41).

(41)   adi-tu   faɣz le şeytan (mışa kemal) qarf.
       gave-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 (42).

(42)   a.   kemal hatarax   ro-i.
            Kemal burned.3M heart-my

'Kemal broke my heart.'

Lit: 'Kemal burned my heart.'

b. ro-i   ın-hatarax   mı kemal.
    heart-my PASS-burned.3M by Kemal
    'My heart was broken by Kemal.'

Unlike non-passivizable idioms, which require a DP causee, such idioms impose no restriction, as illustrated in (43) for geminates and in (44) for the GiveC.

(43) a. ımm-u   ha<u>rra</u>ɣ-e   Leyla ro   le Kemal.
          mother-his burned.CAUS-3F Leyla heart of Kemal
          'His mother made Leyla break Kemal's heart.'

      b. ımm-u   ha<u>rra</u>ɣ-e   ro   le Kemal (mışa Leyla).
          mother-his burned.CAUS-3F heart of Kemal to   Leyla
          'His mother had Kemal's heart be broken (by Leyla).'

(44) ımm-u   ad-e   harx   ro   le Kemal (mışa Leyla).
      mother-his gave-3F burn.INF heart of Kemal to   Leyla
      '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 GiveC 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 (45) and (46).[18]

(45) a. nes-ma$_i$ amal araba (sarxoş$_i$).
          person-a drove car   (drunk)
          'Someone$_i$ drove the car drunk$_i$.'

---

[18]For some speakers, the presence of a 'by'-phrase significantly improves the possibility of depictives in passives.

b. araba ın-amal-e   (??sarxoş) (mı nes-ma).
   car.F PASS-drove-F (??drunk) by someone
   'The car was driven drunk by someone.'

(46) a. kemal$_i$ kar-a   xanni (sarxoş$_i$).
      Kemal wrote-3M song (drunk)
      'Kemal composed the song drunk.'

   b. xanni   ın-kar-a   (??sarxoş) (mı nes-ma).
      song.M PASS-wrote-3M (??drunk) by someone
      'The song was composed drunk by someone.'

Secondary predicates are not licensed with the GiveC, (48), but are compatible with geminates
only when the causee is an overt DP, as in (47). Note that in (47-b), Clitic Left Dislocation (CLLD)
is used to control for how the causee is introduced.

(47) *Geminates*

   a. nana$_i$ qa<u>rr</u>i-na   kemal$_k$ kitab-na (sarxoş$_{i/k}$).
      we   read.CAUS-1PL Kemal book-our (drunk)
      'We made Kemal read our book drunk.'   *Depictives Possible with DP causee*

   b. *haşiş* nana$_i$ ha<u>mm</u>ıl-na-*u* e_k (sarxoş$_{i/??k}$).
      grass we   carried.CAUS-1PL-it.M   (drunk)
      'The grass, we made someone carry it drunk.' *Depictives Impossible with null causee*

   c. nana$_i$ ha<u>mm</u>ıl-na   haşiş mışa işçiyad   (sarxoş$_{i/??k}$).
      we   carried.CAUS-1PL grass to   workers$_k$ (drunk)
      'We made the workers carry the grass drunk.' *Depictives Impossible with PP causee*

(48) *GiveC: Depictives Impossible*

   a. nana$_i$ mı-na-di   daq   zıɣar-na e_k (sarxoş$_{i/??k}$).
      we   NEG-1PL-give beat.INF children-our   (drunk)
      'We don't let anyone beat our children drunk.'

   b. beaqıl ye   dar hamıl   haşiş (??bitkin).
      unwise COP.3SG give carry.INF grass (??tired)
      'It would be unwise to make someone carry the grass tired.'

The diagnostics employed in this section demonstrate the existence of an active-passive-like
alternation for geminate causatives, similar to "make" causatives (Akkuş 2021b), and a passive

structure for the GiveC.[19] The DP causee is an argument, whereas the PP causee in both geminates and the GiveC is an adjunct like a 'by'-phrase.[20]

4.   The causee is not in VoiceP

In light of the active-passive-like alternation, a straightforward conclusion to draw would be the presence of VoiceP. However, this section contends that the causee is introduced in a separate category than the canonical Voice[0], which I identify as CauseeP. Therefore, the geminates and GiveC differ from the MC, which does embed a VoiceP.

The CauseeP assigns a different θ-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. I compare the properties of geminates and the GiveC with those of the MC, which indeed embeds an agentive, thematic VoiceP.

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[19] Similar to the MC, geminate causatives and the GiveC also lack the full CP layer in the embedded structure, illustrated, for example, by the unavailability of CLLD to the right of 'give', (i).

(i)   *ams   aɣa   ada   *haşiş* mışa işçiyad   hazd-*u*.
         yesterday landlord gave.3M grass to   employees cut.INF-it.M
         '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 verb, presumably somewhere in CP. Note also the scrambling of the causee.

[20]It is a non-trivial question why GiveC has only the passive structure (i.e., passive CauseeP), and not the active one. Note that same pattern is also observed in Austronesian languages (Rackowski and Richards 2005; Legate 2014); 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. This asymmetry might be because an active phrase requires licensing of an additional argument, whereas the passive projection does not.

An anonymous reviewer raises the possibility of whether the morphological difference between geminates and the GiveC could be connected to the syntactic difference, with the latter only having the passive structure. Although it is an interesting hypothesis, it would not work when we take the MC into consideration. Although both the GiveC and the MC are periphrastic causatives, the MC patterns like the geminates in allowing active-passive alternation. It could be a selection issue, as such the causativizing verb may select for a specific type of voice. This predicts crosslinguistically the existence of causative constructions which embed only an active structure. However, causatives are not usually described in these terms, and future research might reveal that this is indeed possible. An investigation of this sort would take us too far afield.

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 (49-b) the instrument reading for 'with hammers' is not available in the anticausative/unaccusative, whereas it is available in the passive, (49-a).[21]

(49) a. bina   ın-faşş-e   mı işçiyad   wara çakuçad.
          apartment PASS-demolish-3F by employees with hammers
          'The apartment was demolished by the employees with hammers.'

      b. *bina   ın-qalab-e   mı rua   wara çakuçad.
          apartment INCH-fall.over-3F by itself with hammers
          'The apartment fell over by itself with hammers.'

As discussed in Akkuş (2021b), instrumentals can modify the action of the implicit agent in the MC, which points to the presence of the embedded agent, (50). 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 (50-b).

(50) a. aγa   sa   hazd   haşiş 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   buaγ 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].'

Instrumentals are also possible in the geminates and the GiveC. However, unlike the MC in which instrumentals may be associated with matrix or embedded structures, they only pick out the causer in these two constructions. Consider (51) and (52) for geminates and the GiveC, respectively.

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[21] SA exhibits the so-called *u*-syncretism (Embick 2004), in which intransitive verbal categories, including passive, anticausative, and reflexive, may bear identical morphological marking (as in many other languages such as Greek, Albanian, Turkish, Armenian).

(51) a. ım-mu   xa<u>ss</u>le   hasan   potad wara furça gbir-e.
          mother-his washed.CAUS.3F Hasan.M 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. ım-mu   xa<u>ss</u>le   potad mışa hasan   wara furça gbir-e.
          mother-his washed.CAUS.3F clothes to   Hasan.M 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.

(52) ım-mu   ad-e   lalu potad mışa hasan   xassil wara furça gbir-e.
      mother-his gave-3F these clothes to   Hasan.M 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.

Instrumental phrases manifesting gender distinction are in line with the above generalization. In

(53-a), the instrument containing the feminine possessor refers to the matrix causer. In (53-b),

however, the instrumental contains a phrase with masculine possessor, and cannot have a meaning

in which Hasan used his own arms to do the washing, although this is logically possible.

(53) a. ım-mu   xa<u>ss</u>le   hasan   potad wara hass-a   saqqil.
          mother-his washed.CAUS.3F Hasan.M clothes with voice-her heavy
          'His mother made Hasan wash the clothes with her imposing voice.'

      b. ım-mu   xa<u>ss</u>le   hasan$_i$ potad wara kıttaf-u$_{*i/k}$ zıɣm-in.
          mother-his washed.CAUS.3F Hasan.M clothes with arms-his   strong-PL
          'His mother made Hasan$_i$ wash the clothes with his$_{*i/k}$ strong arms.'

          YES: The mother used someone else's strong arms (metaphorically) to force Hasan

          to do the washing.

          NO: Hasan used his arms to do the washing.

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 (54), and may also be ambiguous as to whether they modify the action of the matrix agent or the embedded agent, (54-b).

(54)   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.   aɣa   sa   hazd haşiş bı   sabır.
               village.lord made.3M 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 (55), or the GiveC, as in (56); they exclusively target the causer.

(55)   a.   oratman ki   tı-qa<u>rr</u>i   kemal lala   kitab bı   sabır.
               teacher PROG.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-qa<u>rr</u>i   lala   kitab mışa kemal bı   sabır.
               teacher PROG.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.

(56)   ım-mu   ad-e   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 (57-a) is lost with unaccusatives, as in (57-b).

(57) a. bina   ın-faşş-e   wara sırraɣ 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   ın-qalab-e   wara sırraɣ fi-ya.
          apartment INCH-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, (58), and the ambiguity of modification regarding the embedded or matrix clause is observed with comitatives as well, as seen in (58-b).

(58) 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. aɣa   sa   hazd   haşiş 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 GiveC, however, the comitative reading is not available with the causee, but only with the matrix causer.

(59)   a.   leyla ha<u>mm</u>ıl-e   kemal mase wara hasan.
              Leyla carried.CAUS-3F Kemal table with Hasan
              'Leyla made Kemal carry the table with Hasan.'

              YES: Leyla and Hasan made Kemal carry the table.

              NO: Leyla made Kemal and Hasan carry the table

        b.   leyla ha<u>mm</u>ıl-e   mase mışa kemal wara hasan.
              Leyla carried.CAUS-3F table to   Kemal with Hasan
              'Leyla made Kemal carry the table with Hasan.'

              YES: Leyla and Hasan made Kemal carry the table.

              NO: Kemal and Hasan carried the table

(60)   leyla ad-e   mase mışa kemal hamıl   wara hasan.
        Leyla gave-3F table to   Kemal carry.INF with Hasan
        'Leyla made Kemal carry the table with Hasan.'

        YES: Leyla and Hasan made Kemal carry the table.

        NO: Kemal and Hasan carried the table

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 GiveC.

4.4   Choice of Preposition

Another aspect that distinguishes the causee from the canonical VoiceP Initiator relates to the choice of the preposition heading the PP adjunct. As shown in (61), the PP adjunct in both matrix passives and the MC are headed by the preposition *mı* 'by, from'.

(61)   a.   ala cam mı kemal ın-qaraf   bı-l-qasti.
              this glass by Kemal PASS-broke.3M with-the-intention
              'This glass was broken by Kemal deliberately.'   (adapted from Yakut 2013:7)

        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 GiveC is headed by preposition *mıʂa* 'to, for'.

These diagnostics show that although the embedded event involves an active-passive alternation in the geminates, and a passive configuration in the GiveC, this embedded VoiceP assigns a different θ-role (causee versus initiator) than the canonical VoiceP. I propose the structures for the geminates and the GiveC in the next section, which are both argued to embed a CauseeP.

5.   Proposal: CauseeP and bundling with ApplP

I argue that an analysis along the lines of Legate's (2014) Acehnese proposal can be extended to the gemination and the GiveC 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 (see also Legate et al. 2020; Akkuş 2021a), a configuration that could be attested in other functional heads, e.g. $Appl^0$ (cf. oblique causers in Pylkkänen 2008).
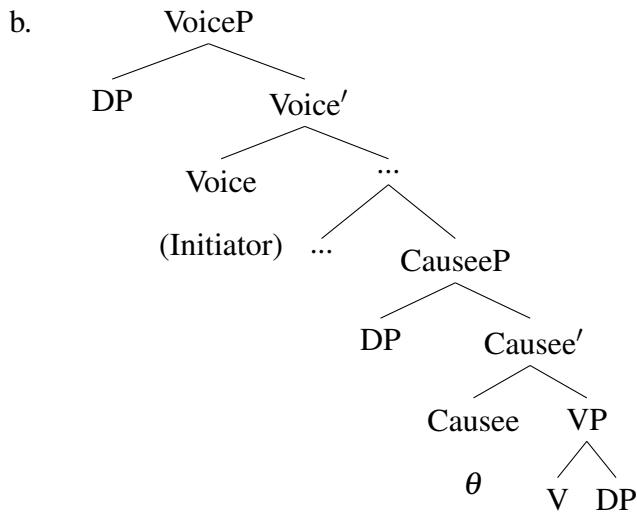
One prediction of this analysis is that an active-passive-like alternation also should be possible on a functional head other than Voice as long as the language in question allows the existential closure to apply to that head and has a PP with the right semantics. Moreover, similar to its Voice counterpart in certain circumstances, this passivization does not necessarily end up with a morphological reflex (e.g. Harley 2017b; Pitteroff 2014, 2015). We have already seen that geminates and the GiveC in SA manifest an active-passive alternation. However, the relevant functional category exhibits properties that warrant identifying it as a distinct projection than canonical VoiceP. I identify this functional category as CauseeP. Let us now illustrate structures with the active CauseeP and two possible configurations of passive CauseeP.

An illustration of the active CauseeP for the geminate causative is given in (62). The causee 'Leyla' is generated as a DP in Spec,CauseeP, and becomes the grammatical subject when passivized. It receives a causee θ-role from $Causee^0$, as in (62-b) (leaving out little v for space

reasons).

(62)   **Active CauseeP**

    a.   qa<u>rr</u>i-tu   leyla alu   kitabad.
        read.CAUS.PFV-1SG Leyla these.M books
        'I made Leyla read these books.'

    b.

VoiceP
- DP
- Voice′
  - Voice (Initiator)
  - …
    - …
    - CauseeP
      - DP
      - Causee′
        - Causee θ
   - VP
          - V
          - DP

Alternatively, the causee may be introduced like the initiator in the canonical passive, which has two associated semantic denotations (see also Bruening 2013; Alexiadou et al. 2015; Legate 2014; Legate et al. 2020).
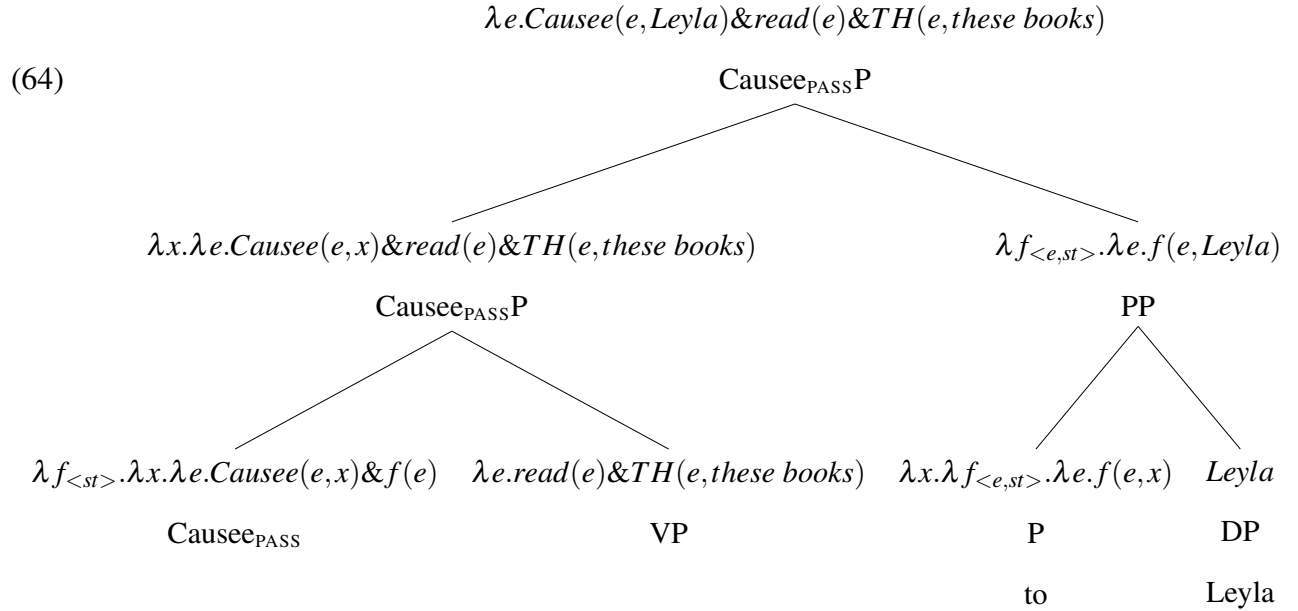
In the denotation with a PP adjunct, Causee$_{PASS}$ leaves the causee position open, i.e. $\lambda e.\lambda x.$CAUSEE(x,e), to be accessed and saturated by the 'to'-phrase. P assigns a causee θ-role to its DP complement, this causee being tied semantically to the causee θ-role introduced by Causee^0, as in (63).

(63)   **Passive CauseeP with 'to'-phrase**

    a.   qa<u>rr</u>i-tu   alu   kitabad mışa leyla.
        read.CAUS.PFV-1SG these.M books   to   Leyla
        'I made Leyla read these books.'

b.

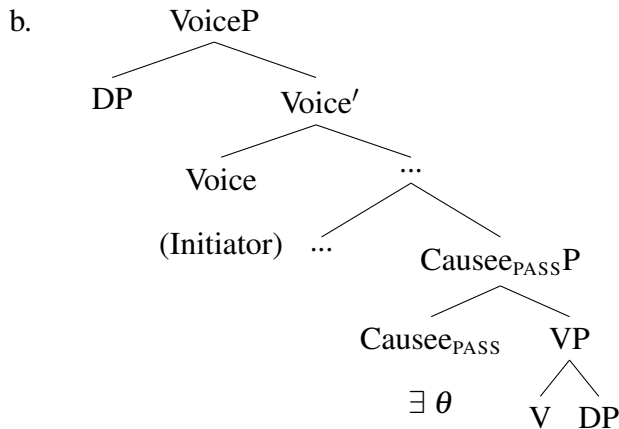$$\lambda e.Causee(e,Leyla)\&read(e)\&TH(e,these\ books)$$
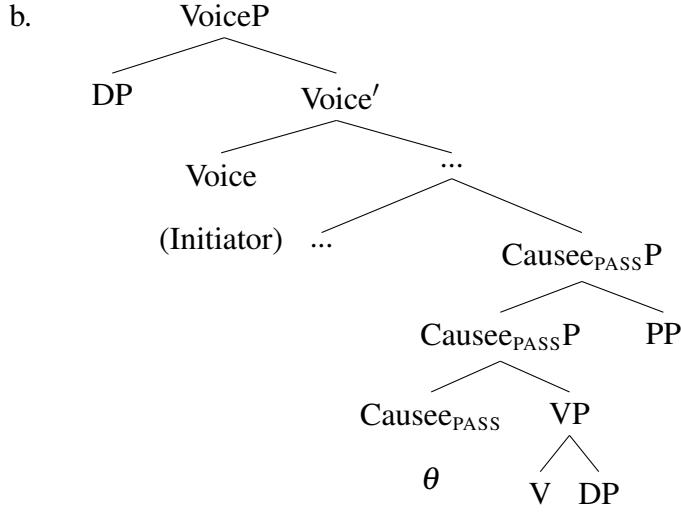
The semantic denotation of the caused event, in which the causee position is saturated by the 'to'-phrase', is provided in (64) (see Bruening 2013 for the denotations).
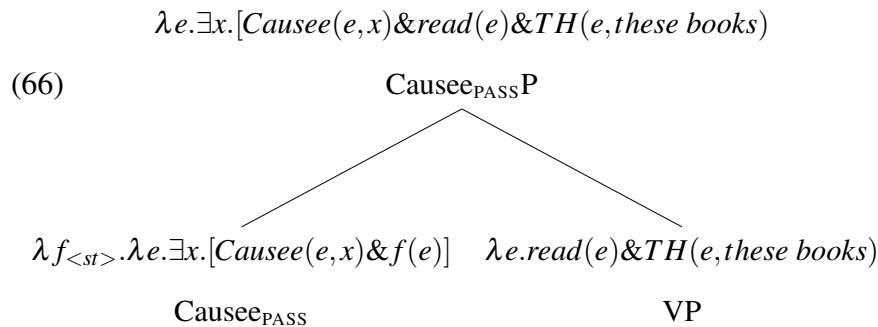
(64)

$$\lambda x.\lambda e.Causee(e,x)\&read(e)\&TH(e,these\ books) \qquad \lambda f_{<e,st>}.\lambda e.f(e,Leyla)$$

$$\lambda f_{<st>}.\lambda x.\lambda e.Causee(e,x)\&f(e) \quad \lambda e.read(e)\&TH(e,these\ books) \quad \lambda x.\lambda f_{<e,st>}.\lambda e.f(e,x) \quad Leyla$$

In the second denotation, in which passive CauseeP does not combine with a 'to'-phrase, the causee is existentially bound on the Causee$_{PASS}$ head, thus $\lambda e.\exists x.\text{CAUSEE}(x,e)$, as in (65).

(65)   **Passive ApplP without 'to'-phrase**

a.   qa<u>rr</u>i-tu   alu   kitabad.
        read.CAUS.PFV-1SG these.M books
        'I had these books read.'

b.

VoiceP

DP   Voice′

Voice   ...

(Initiator)   ...

Causee$_{PASS}$P

Causee$_{PASS}$ VP

$\exists\,\theta$ V   DP

The relevant semantic denotation is provided in (66).

$\lambda e.\exists x.[Causee(e,x)\&read(e)\&TH(e,these\ books)$

(66)   Causee$_{PASS}$P

$\lambda f_{<st>}.\lambda e.\exists x.[Causee(e,x)\&f(e)]$ $\lambda e.read(e)\&TH(e,these\ books)$

Causee$_{PASS}$ VP

Therefore, geminate causatives that apply to transitive bases have active and passive CauseeP structures, as in (62-b) through (65-b). The GiveC, on the other hand, exhibits only the passive CauseeP configurations in (63-b) and (65-b).
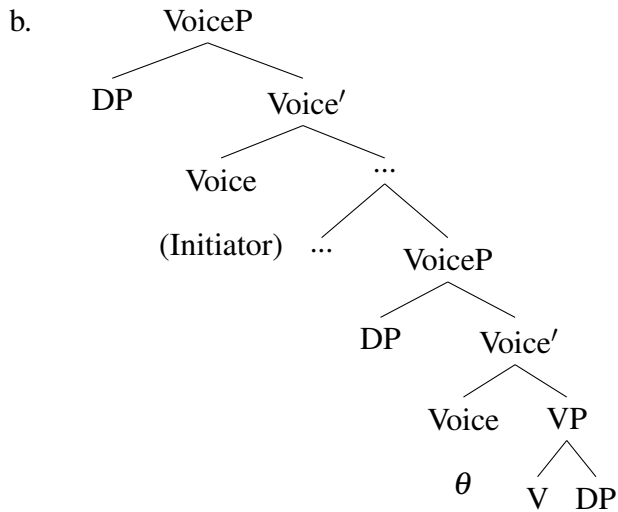
These constructions differ from the MC, which embeds a thematic Voice^0. Consider the illustration in (67) for the active embedded Voice.[22]

---

[22] A reviewer asks whether an analysis along the lines of Schäfer (2008); Wood (2015) could be applied to the geminative causatives in SA. For example, Wood (2015, ch. 4) allows the introduction of a thematic role, i.e. an open semantic position, for active figure reflexives in Icelandic, without having a specifier position. I have indeed adopted the proposed mechanism for the MC in SA in Akkuş 2021b. In that study, I demonstrate that 'make' in the MC embeds two active structures: (i) an active structure in which the null embedded agent is a projected argument, as in (67-b), which needs to undergo Ā-movement for Case-licensing. (ii) the null embedded agent is in an active Voice, however this Voice does not project a specifier position. However, the motivations for adopting such an analysis do not carry over to the geminates or GiveC in this paper, since the absence of a 'by'-phrase does not lead to an active structure, but a passive with an existentially interpreted implicit agent.

Another alternative analysis of Schäfer (2012) treats particular types of oblique causers as modifiers to a little v head introducing a causing event (embedded under Voice). However, I have demonstrated earlier that the causee functions as an argument rather than a modifier in SA.

(67)   **Active VoiceP in the MC** (from Akkuş 2021b)

a.   aɣa   sa   addil   beyt-ma.
village.lord made.3SG build.INF house-a
'The village lord made someone build a house.'

b.

```
                    VoiceP
                   /      \
                DP         Voice′
                          /      \
                     Voice        ...
                                 /    \
                 (Initiator)  ...      VoiceP
                                      /      \
                                   DP         Voice′
                                             /      \
                                         Voice       VP
                                           θ        /  \
                                                   V    DP
```

The discussion thus far demonstrates that geminates and the GiveC pattern alike in terms of embedding a CauseeP, and not a VoiceP. Further investigation reveals that geminates and the GiveC also differ regarding a significant aspect, i.e. co-occurrence with an applied argument. The next section demonstrates that whereas the GiveC and the MC permit the presence of an applicativized argument as well as the causee, geminates disallow applicatives.

5.1   *Co-occurrence with an applied argument*

In this section, I implement a diagnostic, i.e. the co-occurrence restrictions between the causee and applied arguments, to probe whether the causee is generated in ApplP (a relatively standard view, e.g. Ippolito 2000; Zubizarreta 1985; Legate 2014; Nash 2017). This diagnostic is based on the well-known generalization that most languages allow only one applied argument in a given clause (e.g. Marantz 1993; McGinnis 1998; Nie 2020; see also footnote 26), which is also true in Sason Arabic. On the basis of this background, I hypothesize that if the causee is introduced in ApplP, then no other applied argument should be possible. It turns out an applicative argument is allowed in some causative constructions, but not others.

Let us start by looking at benefactive applicatives in root clauses in SA (though the same properties also hold in finite embedded clauses). The example in (68-a) demonstrates that the applicative argument may occur with an unergative verb. It is also possible to introduce the beneficiary embedded under a PP adjunct, as in (68-b).

(68)   a.   kemal faqaz-*la*   sari   kıllu.
            Kemal ran.3M-her morning all
            'Kemal ran for her the whole morning.'

        b.   kemal faqaz   mışa-*na* / mışa leyla.
            Kemal ran.3M for-her   / for   Leyla
            'Kemal ran for her / Leyla.'

Examples in (69) and (70) illustrate the same pattern for the active and stative transitive predicates, 'to read' and 'to hold', respectively.[23] The beneficiary can be introduced as a DP argument as well as a PP adjunct.

(69)   a.   kemal ku   i-qri   lala   kitab.
            Kemal PROG.3M 3M-read.IPFV this.M book
            'Kemal is reading this book.'

        b.   kemal ku   i-qri   lala   kitab mışa leyla.
            Kemal PROG.3M 3M-read.IPFV this.M book for   Leyla
            'Kemal is reading this book for Leyla.'

        c.   kemal ku   i-qri-lla   / i-qri   leyla lala   kitab.
            Kemal PROG.3M 3M-read.IPFV-her / 3M-read.IPFV Leyla this.M book
            'Kemal is reading her / Leyla this book.' (same meaning as the b example)[24]

(70)   a.   kemal ku   i-mseg ax-un   ıstudi şamsiya.
            Kemal PROG.3M 3M-hold brother-his small umbrella
            'Kemal is holding his little brother the umbrella.'

        b.   kemal ku   i-mseg şamsiya mışa ax-un   ıstudi.
            Kemal PROG.3M 3M-hold umbrella for   brother-his small

---

[23]Note that some semantic factors are at play as to which arguments are most felicitous as applied arguments: clitics and full DPs that are large in phonological/syntactic size as well as related to the theme. A similar restriction is reported by Folli and Harley (2006) for Italian benefactives, whereby only certain arguments qualify as possible beneficiaries: clitics, and DPs closely related to the theme.

[24]The benefactive pronoun undergoes a phonological change in some contexts including this one, and is pronounced as -*yya*.

'Kemal is holding the umbrella for his little brother.' (same meaning as the a example)

Recipients or goals are also possible in SA, as shown in (71).

(71)   kemal ada   oranciyad zakk-in   lala   kitab.
         Kemal gave.3M students   intelligent-PL this.M book
         'Kemal gave intelligent students this book.'

These examples confirm that the two types of applied arguments distinguished in Pylkkänen (2008) as 'high applicatives' and 'low applicatives' are found in SA.[25] The point of interest for us is that geminate causatives contrast with root clauses and the other causative constructions in SA in not permitting applied arguments (to be shown below). I make sense of this state of affairs by proposing that in geminates, Causee[0] and Appl[0] are bundled (Pylkkänen 2008; Harley 2017a). As such, the same argument bears two θ-roles, whereas in other instances CauseeP and ApplP remain as separate projections, which permits different arguments to bear θ-roles associated with each projection.[26]

Before proceeding with the discussion, I establish that similar to the DP causee versus PP causee contrast discussed in Section 3.1, a DP beneficiary is an argument, whereas a PP beneficiary is an adjunct. Recall that in SA only arguments can be clefted, and adjuncts are not licit cleft pivots.

---

[25]Note that the position of Pylkkänen's (2008) low applicatives as structurally below VP has been challenged by many researchers, and have been suggested to occupy the same position as high applicatives, i.e. between VoiceP and *v*P (Anagnostopoulou 2003; Bruening 2010; Larson 2010; Georgala 2011; Legate 2014). I also assume both to occupy the same position in this paper.

[26]Note that this is different from the question of whether a language allows the so-called applicative recursion, i.e. the possibility of more than one applied argument. It has been observed that in most languages with both high and low applicatives, only one applied argument is permitted in any given clause (Marantz 1993; McGinnis 1998; Nie 2020), and very few languages allow applicatives to combine (e.g. Kinyarwanda, Ngoboka 2005). SA also disallows applicative recursion, thus (i).

(i)   *kemal ada   mara   oranciyad zakk-in   lala   kitab.
        Kemal gave.3M woman students   intelligent-PL this.M book
        'Kemal gave intelligent students this book for the woman.'

Although applicative recursion in itself is a significant phenomenon (see Nie 2020), the discussion here is about the contrast between matrix and embedded structures.

A DP beneficiary can be clefted, (72), whereas a PP beneficiary cannot be, (73).

(72)   a.   kemal ku   i-qri   leyla lala   kitab.
            Kemal PROG.3M 3M-read.IPFV Leyla this.M book
            'Kemal is reading Leyla this book.'   (repeated from (69-c))

       b.   Leyla ye   (ande) le   Kemal ku   i-qri   _ lala   kitab.
            Leyla COP.3SG who   that Kemal PROG.3M 3M-read.IPFV   this.M book
            'It is Leyla that Kemal is reading this book.'

(73)   a.   kemal ku   i-qri   lala   kitab mışa leyla.
            Kemal PROG.3M 3M-read.IPFV this.M book for   Leyla
            'Kemal is reading this book for Leyla.'   (repeated from (69-b))

       b.   *mışa Leyla ye   (ande) le   Kemal ku   i-qri   lala   kitab _.
            for   Leyla COP.3SG who   that Kemal PROG.3M 3M-read.IPFV this.M book
            'It is for Leyla that Kemal is reading this book.'

Secondly, a DP beneficiary can be raised to become the grammatical subject in line with its argumenthood status, as shown in (74-b).

(74)   a.   kemal ku   i-qri   leyla lala   kitab.
            Kemal PROG.3M 3M-read.IPFV Leyla this.M book
            'Kemal is reading Leyla this book.'

       b.   Leyla ki   t-in-qari   lala   kitab (mı Kemal).
            Leyla PROG.3F 3F-PASS-read.IPFV this.M book (by Kemal)
            'Leyla is being read this book (by Kemal).'

Against this backdrop, let us start with investigation of the MC, which will serve as another comparative basis with geminates and the GiveC. Examples in (75-a), (76-a) and (77-a) demonstrate that applicative arguments can co-occur with the causee in unergatives, transitives and ditransitives respectively (For the sake of completeness, I also provide the PP adjunct beneficiary in b. examples).

(75)   a.   kemal sa   faqz-*la*   sari   kıllu.
            Kemal made.3M run.INF-her morning all
            'Kemal made someone run for her the whole morning.'

b. kemal sa   faqz   mışa-*na*.
    Kemal made.3M run.INF for-her
    'Kemal made someone run for her.'

(76) a. kemal sa   tabx-*la*   / ?leyla kek.
         Kemal made.3M bake.INF-her / ?Leyla cake
         'Kemal made someone bake her / Leyla a cake.'

      b. kemal sa   tabx   kek   mışa-*na* / mışa leyla.
         Kemal made.3M bake.INF cake for-her / for   Leyla
         'Kemal made someone bake a cake for her / Leyla.'

(77) a. kemal sa   tarx-*la*   / leyla hadiya-ma.
         Kemal made.3M send.INF-her / Leyla gift-a
         'Kemal made someone send her / Leyla a gift.'

      b. kemal sa   tarx   hadiya-ma mışa-*na* / mışa leyla.
         Kemal made.3M send.INF gift-a   for-her / for   Leyla
         'Kemal made someone send a gift to her/Leyla.'

Finally, (78) indicates that the same possibility is available when 'make' embeds a passive VoiceP, as indicated by the presence of a 'by'-phrase (see Akkuş 2021b).

(78) a. kemal sa   tabx-*la*   kek   mı aşçi-ma gıze muhim.
         Kemal made.3M bake.INF-her cake by cook-a so   important
         'Kemal had a cake baked for her by a very important cook.'

      b. kemal sa   tabx   kek   mışa-*na* mı aşçi-ma gıze muhim.
         Kemal made.3M bake.INF cake for-her   by cook-a so   important
         'Kemal had a cake baked for her by a very important cook.'

On the other hand, geminates exhibit a contrast between the possibility of a DP versus PP beneficiary. Starting with unergatives, (79-b) shows that DP applicatives are disallowed, whereas they are allowed as adjunct PPs, (79-c).

(79) a. faqqız-tu   kemal.
         ran.CAUS-1SG Kemal
         'I made Kemal run.'

      b. *faqqız-to-*lla*   kemal.
         ran.CAUS-1SG-her Kemal

'I made Kemal run for her.'

c. faqqız-tu   kemal mışa-*na*.
    ran.CAUS-1SG Kemal for-her
    'I made Kemal run for her.'

The same co-occurrence restriction also holds with transitive predicates in both the active and passive CauseeP, as shown in (80) and (81) respectively.[27] (80-c) indicates that the order of the causee and the applicative is not the issue.[28]

(80) a. oratman ku   i-qarri   kemal kitab-ma mışa-na / mışa leyla.
          teacher   PROG.3M 3M-read.CAUS Kemal book-a   for-her / for   Leyla
          'The teacher is making Kemal read a book for her/Leyla.'

      b. *oratman ku   i-qarri-*lla*   / leyla kemal kitab-ma.
          teacher   PROG.3M 3M-read.CAUS-her / leyla Kemal book-a
          'The teacher is making Kemal read her / Leyla a book.'

      c. *oratman ku   i-qarri   kemal leyla kitab-ma.
          teacher   PROG.3M 3M-read.CAUS Kemal Leyla book-a
          Intended: 'The teacher is making Kemal read Leyla a book.'

(81) a. oratman ku   i-qarri   kitab-ma mışa kemal.
          teacher   PROG.3M 3M-read.CAUS book-a   to   Kemal
          'The teacher is having a book read by Kemal.'

      b. oratman ku   i-qarri   kitab-ma mışa kemal mışa leyla.
          teacher   PROG.3M 3M-read.CAUS book-a   to   Kemal for   Leyla
          'The teacher is having a book read by Kemal for Leyla.'

---

[27]Note that a potential confound is available in this construction as to which structure the beneficiary is associated with. This sentence allows the following two interpretations: (i) 'The teacher, for the benefit of Leyla, forced [Kemal to read the book]', in which case the matrix subject 'the teacher' is associated with bringing out the beneficiary reading for Leyla; or (ii) 'The teacher forced [Kemal to read the book for the benefit of Leyla]' in which scenario, the teacher is not involved as to who benefits from the caused event, but the causee *Kemal* performs the action for the benefit of *Leyla*. It is also possible to construct scenarios which unambiguously allow the latter reading. This can be achieved by making the matrix subject inanimate, as such it would lack sentience. Consider (i).

(i) şimşak   tı-qarri   kemal kitab-ma mışa leyla.
     thunderstorm 3F-read.CAUS Kemal book-a   for   Leyla
     'The thunderstorm is making Kemal read a book for Leyla (instead of them going out and playing).'

[28]Gemination does not apply to ditransitive bases in Arabic (e.g. *give, send, donate, tell*, see Hallman 2006), including in SA. Whether this restriction follows from a deep explanation must await future work. It is however worth noting that it is consistent with the idea of Causee and Appl head bundling in geminates.

    c.   #oratman ku   i-qarri-*lla*   kitab-ma mışa kemal.
           teacher   PROG.3M 3M-read.CAUS-her book-a   to   Kemal
           YES: 'The teacher is making her read a book for Kemal.'

           NO: 'The teacher is having a book read her by Kemal.'

Another example with the transitive verb 'to pour' in the active embedded structure follows:

(82)   a.   Hasan ku   i-dabbex   kemal mayn mışa-na / mışa leyla.
           Hasan PROG.3M 3M-pour.CAUS Kemal water for-her / for   Leyla
           'Hasan is making Kemal pour water for her/Leyla.'

        b.   *Hasan ku   i-dabbex-*lla*   / leyla kemal mayn.
           Hasan   PROG.3M 3M-pour.CAUS-her / leyla Kemal water
           'Hasan is making Kemal pour her / Leyla water.'

        c.   *Hasan ku   i-dabbex   kemal leyla mayn.
           Hasan   PROG.3M 3M-pour.CAUS Kemal Leyla water
           Intended: 'Hasan is making Kemal pour Leyla water.'

The pattern reveals that gemination disallows the introduction of an applied argument, whereas an applicative is allowed as long as it is introduced as a PP adjunct.[29] In this respect, geminates differ from root clauses and the MC, which allow applicatives both in the form of a DP argument and a PP adjunct. Let us now examine the GiveC, which only has a passive structure. They disallow unergatives (presumably because unergatives cannot form personal passives in SA). Examples in (83) and (84) demonstrate that with transitive predicates, the causee can co-occur with an applied argument. The b. examples are instances of benefactives introduced as PP adjuncts, whereas c. examples illustrate benefactives as DP arguments.

---

[29]It is worth emphasizing that the patterns in (79) through (82) are about *benefactives* in geminate causatives. The patterns demonstrate that a benefactive DP argument is ruled out, whereas a benefactive PP adjunct is allowed in geminates, regardless of whether the embedded predicate is unergative or transitive. This DP versus PP contrast indicates that there is not an interpretative restriction in having applied elements in the geminates, but it is more of a syntactic restriction. Applied elements are compatible in geminates as long as they are introduced as PP adjuncts, but not as DP arguments.

   This pattern, however, is distinct from the the *causee* patterns introduced earlier, e.g. (8)-(9) versus (6). The causee behaves differently from the benefactive, in that the realization of the causee is sensitive to the predicate type. While it can be realized as a DP argument or as a PP adjunct with transitives, (6), it can only be realized as a DP argument with unergatives, as in (8) and (9). It is significant to not conflate these two patterns. I leave the discussion of the causee pattern to the end of the paper.

(83)   a.   dade   ād-e   addil dolabad mışa tamirci.
             mother gave-3F fix.INF shelves to   repairman
             'Mom had the shelves fixed by the repairman.'

        b.   dade   ād-e   addil dolabad mışa tamirci   mışa bınt-a   / mışa-na.
             mother gave-3F fix.INF shelves to   repairman for   daughter-her / for-her
             'Mom had the shelves fixed by the repairman for her daughter / for her.'

        c.   dade   ād-e   addil-la   / addil leyla dolabad mışa tamirci.
             mother gave-3F fix.INF-her / fix.INF Leyla shelves to   repairman
             'Mom had the shelves fixed by the repairman for her / Leyla.'

(84)   a.   dade   ād-e   qaru   kitab mışa kemal.
             mother gave-3F read.INF book to   Kemal
             'Mom had the book read by Kemal.'

        b.   dade   ād-e   qaru   kitab mışa kemal mışa bınt-a   / mışa-na.
             mother gave-3F read.INF book to   Kemal for   daughter-her / for-her
             'Mom had the book read by Kemal for her daughter / for her.'

        c.   dade   ād-e   qaru-lla   / qaru   leyla kitab mışa kemal.
             mother gave-3F read.INF-her / read.INF Leyla book to   Kemal
             'Mom had the book read by Kemal for her / Leyla.'

'Give'-causatives of ditransitive predicates also exhibit the same behavior in allowing a causee and

an applicative argument to co-occur. Consider (85).[30]

(85)   a.   dade   ād-e   tarx   leyla kitab mışa kemal.
             mother gave-3F send.INF Leyla book to   Kemal
             'Mom had Leyla sent the book by Kemal.'

             (i.e. Mom made Kemal send Leyla the book).

        b.   dade   ād-e   tarx-*la*   kitab mışa kemal.
             mother gave-3F send.INF-her book to   Kemal

---

[30]The ungrammaticality of (i) indicates that the pattern in SA is different from Austronesian applicativized arguments which cannot remain in-situ, and thus either are realized as a PP or A-move to become the grammatical subject (e.g. Pearson 2001; Richards 2001; Rackowski and Richards 2005; Legate 2014).

(i)   *kemal ın-ada   qaru   kitab.
         Kemal PASS-gave.3M read.INF book
         'Kemal was made to read the book.'

The possibility of unergatives with the MC as well as the difference from the Austronesian languages suggest that it is not a Case problem.

'Mom had her sent the book by Kemal.' (i.e. Mom made Kemal send her the book).

The findings in this section can be summarized in Table 1.[31] Various diagnostics indicate that geminates and the GiveC differ from the MC and root clauses in terms of agentive properties. This motivated an analysis of CauseeP as opposed to VoiceP. However, geminates and the GiveC also differ from each other in terms of allowing an applied argument. Whereas the GiveC permits the co-occurence (thus patterning like the MC in this respect), geminates do not.[32]

	Root clause	**MC**	**Geminates**	**GiveC**
Active-Passive?	both	both	both	only passive
Agentive properties?	✓	✓	*	*
Applied argument?	✓	✓	*	✓

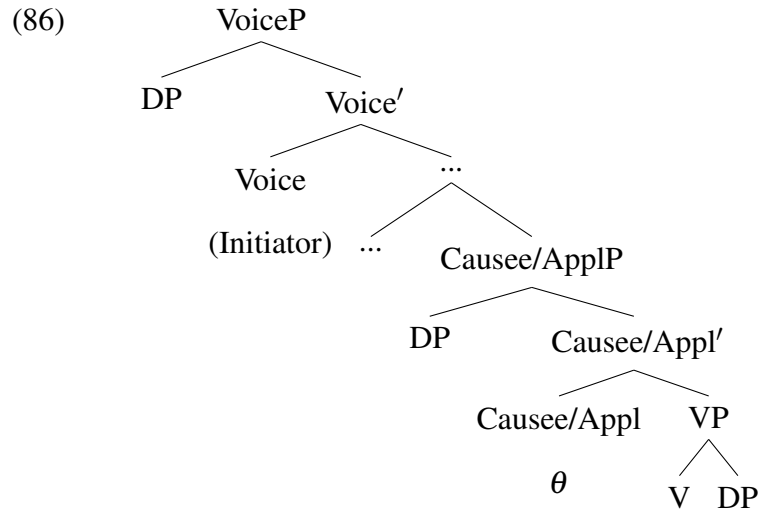Table 1: Properties of causatives in SA

I capture this difference between the causative constructions by proposing that in geminates, $Causee^0$ and $Appl^0$ bundle (following Pylkkänen 2008; Harley 2017a). As such, a single argument bears both Causee and benefactive θ-roles, and this indeed is reflected in the interpretation of these causatives. The causee is also interpreted as the beneficiary/maleficiary of the caused event.[33] The bundling structure can be schematized as in (86).

---

[31]A reviewer asks whether the generalization is that GiveC ApplPs don't have the PP restriction which geminates ApplPs do. This cannot be case, since the geminate examples from (79) through (82), and GiveC examples from (83) through (85) show that a PP adjunct benefactive is licit in either causativization strategy regardless of the predicate type. Therefore, we are not dealing with a sort of PP restriction.
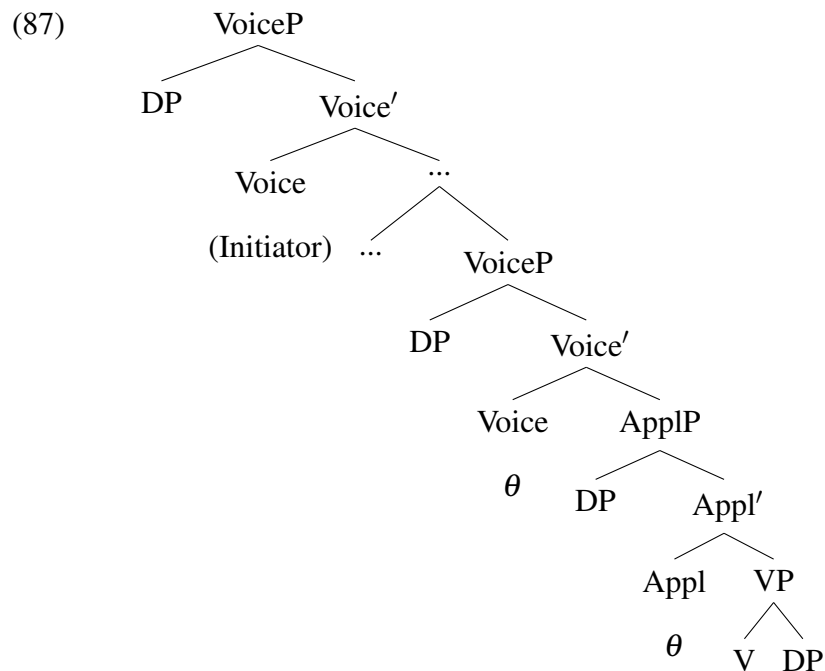
[32]In Pylkkänen's (2008) causative typology based complement selection, if a causee cannot be modified by agent-oriented modifiers, the complement cannot contain a high applicative (and vice versa). This type of causative was argued to contain *vP* as opposed to VoiceP. Table 1 demonstrates that this cannot be true, since the causee in the GiveC lacks agentive properties, but the embedded structure does allow a high applicative.

[33]This analysis is reminiscent of Guasti's (1996) analysis of the Italian *faire infinitive (FI)* construction, in which the agent of the embedded verb is also suggested to receive a benefactive theta role from the causative verb. See also Ippolito 2000 (similar to Zubizarreta 1985) for the argument that the causee in FIs is introduced by Appl and is comparable to benefactives. See also Nash (2017) for a similar point about Georgian causatives.
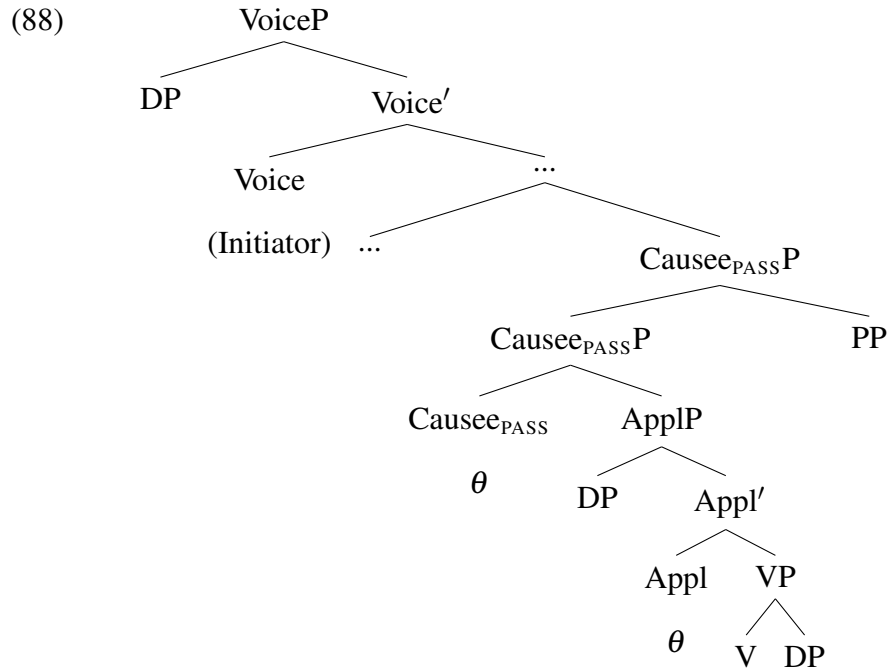
I use the label CauseeP to differentiate it from CausP used by e.g., Key (2013); Harley (2017a) in which CausP roughly corresponds to (and is explicitly likened to) ApplP.

(86)

```
                    VoiceP
              ┌───────┴───────┐
            DP              Voice′
                      ┌───────┴───────┐
                    Voice            ...
                  (Initiator)  ...  Causee/ApplP
                                 ┌──────┴──────┐
                               DP          Causee/Appl′
                                        ┌──────┴──────┐
                                   Causee/Appl       VP
                                        θ          ┌──┴──┐
                                                   V   DP
```

On the other hand, with the MC and the GiveC, the projections introducing the embedded agent and the causee respectively are not bundled with the Appl that they dominate. (87) represents the structure of the MC in which both the embedded agent and the applicative argument are generated in VoiceP and ApplP respectively.

(87)

```
                    VoiceP
              ┌───────┴───────┐
            DP              Voice′
                      ┌───────┴───────┐
                    Voice            ...
                  (Initiator)  ...  VoiceP
                                 ┌──────┴──────┐
                               DP            Voice′
                                        ┌──────┴──────┐
                                      Voice          ApplP
                                        θ        ┌─────┴─────┐
                                               DP          Appl′
                                                     ┌───────┴───────┐
                                                   Appl            VP
                                                    θ            ┌──┴──┐
                                                                 V   DP
```

A similar non-bundling structure is observed in the GiveC, as illustrated in (88), where the causee, whose θ-role is saturated by the DP inside the PP, and the applicative are introduced in different projections.

(88)

```
                    VoiceP
                 ┌─────┴──────┐
                DP          Voice′
                        ┌─────┴──────┐
                      Voice          ...
                                ┌─────┴────────────┐
                  (Initiator)  ...              CauseePASSP
                                          ┌───────┴────────┐
                                    CauseePASSP           PP
                                   ┌─────┴──────┐
                             CauseePASS       ApplP
                                  θ       ┌────┴─────┐
                                         DP        Appl′
                                              ┌─────┴────┐
                                            Appl        VP
                                             θ       ┌───┴───┐
                                                     V      DP
```

Note that when the matrix verb is passivized in (88), the applied argument raises to become the grammatical subject. This is illustrated in (89).

(89) leyla ın-ād-e   tarx   kitab mışa kemal (mı dade).
      Leyla PASS-gave-3F send.INF book to   Kemal (by mother)
      'Leyla was made (by mother) to be sent the book by Kemal.'

This section has demonstrated that in geminates, Causee^0 and Appl^0 bundle (Pylkkänen 2008; Harley 2017a), as such a single argument carries Causee and benefactive θ-roles. On the other hand, with the GiveC and the MC, no bundling takes place, and as a result, different arguments bear distinct θ-roles.

Before concluding, I briefly touch upon the contrast between the *causee* of unergative and transitive bases of geminates. As mentioned early on in the paper, the causee of a transitive can be introduced as a DP or PP (cf. (16)), whereas the causee of an unergative may only be a DP, (90).

(90) kemal ku   i-faqqez   (*mışa) kelb.
      Kemal PROG.3M   3M-run.CAUS   to   dog
      'Kemal is making the dog run.'   (Yakut 2013:34b)

Given that with transitive bases, a DP versus PP causee reflects an active versus passive alternation with the DP being an argument and PP an adjunct, it follows that unergative bases would allow the causee to be expressed only as a DP since they cannot form personal passives in SA. Following Legate et al. (2020), I take this to be a low-level, language-particular syntactic fact, as languages may differ in this regard; other languages, such as Germanic languages, could have different properties. For instance, Legate et al. (2020) show that in Turkish, passive is limited in application to transitive predicates with a thematic subject and structurally case marked object, whereas unergative or unaccusative predicates are not passivizable. Sason Arabic appears to mark this distinction in the case of arguments in CauseeP. Therefore, the causee of embedded unergative predicate fails to meet the requirements for passivization, and as such cannot be expressed as a PP, whereas the causee of a transitive predicate can be realized either way. In the analysis of the passive developed in Legate et al. (2020), such restrictions can be encoded in the selectional properties of the passive Voice/Causee/Appl head.

6.   Conclusions

This paper has investigated several causative constructions in Sason Arabic and discussed their theoretical implications. The paper has focused on the nature of the projection embedded under the causativizing verb, as well as the voice alternations that projection may exhibit.

I have demonstrated that unlike 'make'-causatives, which embed a canonical VoiceP, both geminates and 'give'-causatives embed a distinct projection, CauseeP. This projection differs from VoiceP in various syntactic and semantic aspects. This investigation contributes to the typology of projections that may host the agent of the embedded event. Furthermore, I have shown that geminates exhibit an active-passive-like alternation, while the 'give'-causatives manifest the behavior of a passive structure. The ability of CauseeP to show an active-passive alternation provides independent evidence for Legate's (2014) analysis of the passive.

I have further investigated the (in)compatibility of the causee with an applicative argument, and demonstrated that causatives show variation in this respect. Whereas geminates disallow the

occurrence of an applied argument, this is permitted in 'make' and 'give'-causatives as well as root clauses. The paper has captured this asymmetry by proposing that in geminates, Causee[0] and Appl[0] are bundled together, and as such the same argument ends up bearing two θ-roles.

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