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Variable embedded agent in Sason Arabic[1]

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The paper investigates the syntax and semantics of an indirect causative construction, 'make' causatives, in Sason Arabic with a focus on the syntax of the embedded structure and the status of the implicit embedded agent. On the basis of several diagnostics, the study demonstrates that 'make' embeds an agentive VoiceP, which also manifests an active-passive alternation despite the absence of any morphological reflex. Regarding the nature of the implicit embedded agent, the paper argues that it is present as a free variable *à la* Heim (1982) generated on the Voice head itself. In so doing, it adds to the ontology of null arguments as well as suggesting that licensing of a grammatical object is dissociated from the projection of a specifier.

KEYWORDS: causative, Voice, implicit arguments, free variable, Sason Arabic

1. INTRODUCTION

Sason Arabic (SA, an Anatolian Arabic variety) has a type of indirect causative embedded under the verb 'make' (henceforth MC). As illustrated in (1), it is a construction with an overt embedded theme argument, but no overt embedded agent. The verb appears in infinitival form. It maintains an agentive reading where the embedded agent is interpreted as indefinite 'someone' or 'some people'.

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

This paper investigates this construction with a focus on (i) the syntax of the structure 'make' embeds, and (ii) the syntax and semantics of the implicit embedded agent. With respect to the first point, a bare VP analysis has been suggested for similar constructions, e.g. Swedish (Lundin 2003), Hiaki (Harley 2013), Hindi (Ramchand 2006), Italian (Folli & Harley 2007), Icelandic (Wood 2011, Wood &

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Glossing follows Leipzig conventions with the following additions: GRND = gerund, INCH = inchoative, INDIR = indirect.

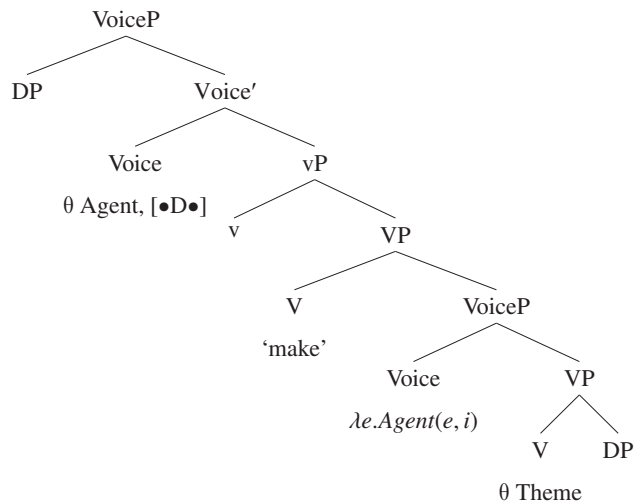
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Á. Sigurðsson 2014), a.o. As such, the causativizing verb embeds a VP, and no higher projection(s). I argue that in SA 'make' embeds (at least) a thematic VoiceP, which exhibits an active-passive alternation despite the absence of any morphological reflex. As such, this contributes to the typologies of Voice and of causatives (cf. Schäfer 2008, 2017, Alexiadou & Anagnostopoulou 2004, Harley 2013, Legate 2014, To appear, Pitteroff 2015).

As to the second point, the question is whether the implicit argument is syntactically projected or not in the active complement of 'make' when the agent is not realized overtly. Implicit arguments have been discussed extensively in the literature (Williams 1985, Rizzi 1986, Roeper 1987, Bhatt & Pancheva 2006, Landau 2010, Legate 2014, i. a.). For instance, Bhatt & Pancheva (2006, 2017) conclude that in some cases implicit arguments seem to be syntactically active, but that there is no good evidence to suggest that they are syntactically projected. Landau (2010) claims that some implicit arguments are syntactically real and can be split into strong implicit arguments (SIAs) and weak implicit arguments (WIAs). SIAs have ϕ-features and a D feature, which takes an NP predicate and turns it into a syntactic argument (Longobardi 1994, Heim & Kratzer 1998). WIAs have only a set of ϕ-features allowing the implicit argument to be involved in a limited set of syntactic relations e.g., control, but not binding. Legate (2014) argues that implicit arguments indeed vary crosslinguistically from fully projected as e.g., in the impersonal, to partially projected as e.g., in the grammatical object passive. In contrast, canonical passives lack a projected implicit agent. Under Legate's analysis, fully projected and partially projected arguments in Spec,VoiceP are enough for the Voice head to assign accusative case, whereas the absence of the implicit argument causes the theme to receive nominative case.

In this paper, I provide arguments showing that the embedded agent is not syntactically projected into the specifier of the embedded VoiceP, but rather appears as a free variable (*à la* Heim 1982) on the active Voice head, as in (2).

(2)



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The free variable on thematic, active Voice differs from the implicit passive agent or implicit indefinite objects in its properties. For instance, implicit agents of passives cannot antecede pronouns occurring subsequently in the clause or in a subsequent clause. However, such pronouns corresponding to the embedded agent are possible in the MC. Therefore, the exploration of this construction also gives important insights for the typology of implicit arguments. The possibility of the embedded agent being introduced on the Voice head implies that the licensing of a grammatical object is possible for VoiceP, and not dependent on the projection of a specifier, be it in the form of a grammatical subject (cf. Burzio's (1986) generalization; also see Marantz 1991, Woolford 2003, McFadden 2004), or as ϕ-features, i.e., the weak implicit argument, in Spec,VoiceP (Legate 2014).[2]

Overall, the investigation of these MCs in SA is of theoretical significance since they inform us about both the properties of a thematic Voice and how these properties interact with the introduction of the external argument and internal argument (Case)-licensing.

The paper is organized as follows: §2 describes the causativization strategies in Sason Arabic. §3 provides evidence for a Voice layer in the embedded event of Sason Arabic MCs on the basis of several diagnostics that target an external argument layer. After establishing the presence of a Voice layer, §4 argues that the embedded Voice is not exclusively passive (cf. Pitteroff 2015 for German; Bhatt & Embick 2004/2017 for Hindi-Urdu), instead manifests an active-passive alternation. §5 demonstrates that the embedded theme behaves as the grammatical object in this construction. §6 deals with certain properties of the embedded agent, demonstrating that it cannot license anaphors and depictives, but it can license pronouns. Based on these properties, I argue that the embedded agent may be introduced as a free variable when the embedded Voice is active. §7 summarizes and concludes the paper.

2. Causatives in Sason Arabic

In this section I briefly introduce the causativization strategies in SA, to the extent that they relate to the overall discussion in the paper.

SA has four ways of expressing causatives, two of which are via morphological processes, i.e. ablaut and gemination, and the other two being periphrastic causatives, i.e. 'give' and 'make' causatives. Ablaut and gemination strategies are found in other Arabic varieties as well (Kurylowicz 1957, Fassi Fehri 1987, Benmamoun 1991, Hallman 2006, i.a.).[3]

[2] See Šereikaitė (2020) for a similar view that a thematic Voice head is sufficient for the assignment of accusative on the basis of Lithuanian root clauses, which she calls *active existential.*

[3] Arabic also has the so-called X theme *'istaf*ʿ *ala,* 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)staktaba.* This is lost in Sason Arabic.

Arabic also has analytical causatives formed with verbs such as *ja* ʿ*ala* 'to make' or *taraka* 'to

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For the ablaut process, causative verbs may be formed from unaccusatives by changing the stem vowel in most cases (Kurylowicz 1957, see also Saad 1982: 66; 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 not as prevalent. Consider (3) and (4).

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

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

(4) (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.'

In the case of gemination strategy, the causative affix is realized by geminating the second radical of the stem. Geminate causatives formed from the unaccusative bases may not express indirect causative reading (just like the ablaut strategy), similar to their counterparts in other Arabic varieties (e.g. Saad 1982, Benmamoun 1991, Hallman 2006). This is illustrated in (5).

(5) (a) xaser xıreb.
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.'

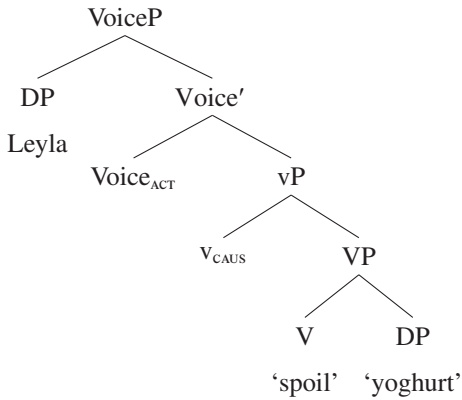
(c) xaser ın-xarreb (mı leyla).
yoghurt PASS-spoiled.CAUS.3M by Leyla
'The yoghurt was spoiled (by Leyla).'

Overall, the sequence of morphemes found in the 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 (6), 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. (6a) is the structure for the active clause in (5b), and (6b) is the configuration for the passive in (5c).

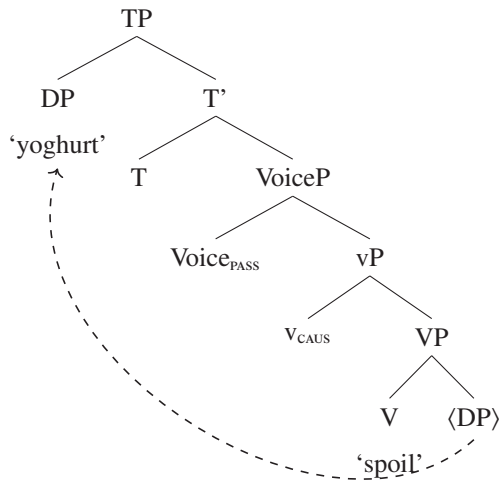
let' (e.g. Saad 1982: 82; AlRashed 2012: 209–216). However these verbs embed a finite structure in which the embedded verb carries agreement. Therefore I leave them aside.

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(6) (a)



(b)



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 *(mı)şa* ‘to, for’, as in (7b) and (7c), respectively.

(7) (a) kemal ku i-qr̲i lala kitab.
Kemal be.3M 3M-read.IPFV this.M book
‘Kemal is reading this book.’

(b) oratman ki tı-qar̲ri 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 tı-qar̲ri lala kitab mışa kemal.
teacher be.3F 3F-read.CAUS this.M book to Kemal
‘The teacher is making Kemal read this book.’ (Yakut 2013: 33b)

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In addition to the root and pattern strategies, SA exhibits two periphrastic causative constructions (Akkuş 2020a). The periphrastic causative formed with the light verb 'give' allows the causee to be introduced only as a PP headed by *(mı)şa* 'to, for'. The embedded verb is in infinitival form. Consider (8). This construction is calqued on the Kurdish periphrastic causative, which uses the light verb *bıdın* 'give'.[4]

(8) (a) ado dolab-ad-en (şa tamirci) addil.
gave.3PL shelf-PL-their (to repairman) make.INF
'They had their shelves done.'
(Lit: They gave their shelves to repairing to the repairman)

(b) ımm-a mışa fatma şi adıd-u addil.
mother-her to Fatma food gave.3F-it.M make.INF
'Her mother had Fatma cook.'
(Lit: Her mother gave Fatma cooking) (Erguvanlı-Taylan 2017: 221: (30))

SA has another type of indirect causative embedded under the verb 'make', which is the focus of this paper.[5]

(9) mafya sa qadıl hasm-u.
mafia made murder.INF enemy-his
'The mafia leader made someone murder his enemy.'

Note that there is no overt argument/morpheme corresponding to the causee in (9). This construction differs from the previous strategies in not allowing the implicit causee to be overtly expressed, be it as a DP, (10a), or a PP headed by 'to, for', (10b), regardless of the definiteness. In contrast, as illustrated in (10c), a PP headed by the preposition *mı* 'by, from' is licit with an indefinite noun phrase (see Section 3.5 for more discussion of this possibility).

(10) (a) *mafya sa *nes-ma gbi* / *nes-ma* / *tamirci* qadıl
mafia made person-a big / person-a / repairman murder.INF
hasm-u.
enemy-his
'The mafia leader made a big person / someone / the repairman murder his enemy.'

[4] See Akkuş (2021) for some discussion of these causative strategies.

[5] This construction seems to be found in the grammar of speakers from certain villages, but not others. I report the grammars of speakers who have this construction (including myself) leaving aside the variation among subdialects of SA in this paper. SA also has another causative construction with 'make', in which 'make' embeds a finite clause and seem to be present in a larger geographical area. I leave that construction to future work. See Akkuş To appear for some discussion.

In most cases, I provide as literal a translation as possible for the sentences discussed. However, I do not assign a grammaticality judgment to those translations. Grammaticality judgments are assigned only to the Sason Arabic sentences.

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(b) *mafya sa qadıl hasm-u *mışa nes-ma gbir* / mafia made murder.INF enemy-his to person-a big / *nes-ma* / *tamirci.*
person-a/ repairman
'The mafia leader made his enemy murdered by a big person / someone / the repairman.'

(c) mafya sa qadıl hasm-u ✓*mı nes-ma gbir* / ✓/? *mı nes-ma* / **mı tamirci.*
mafia made murder.INF enemy-his by person-a big / by person-a / by repairman
'The mafia leader made his enemy murdered by a big person / someone / *the repairman.'

Given this backdrop, the paper proceeds with the investigation of the syntax of the embedded clause in the MC, which is followed by an examination of the status of the implicit embedded agent. In the next section, I review a potential analysis for the MC, which has been discussed widely for other languages with a causativizing element of this sort.

3. An embedded agentive VoiceP

In the literature, constructions similar to the MC have been proposed to embed a bare VP, and not higher projections (e.g. Swedish (Lundin 2003), Hiaki (Harley 2013), Hindi (Ramchand 2006), Italian (Folli & Harley 2007), Icelandic (Wood 2011, Wood & Á. Sigurðsson 2014)). This section first summarizes some arguments from the previous literature for the bare VP analysis. This is followed by the introduction of arguments for the presence of a thematic Voice in the MC, not just VP.

For instance, Folli & Harley (2007) propose that the properties of the two causative classes in Italian, *faire infinitif* (FI) and *faire par* (FP) depend on the nature of the complement of *fare* (the cognate of the Romance causatives with *faire*): FI embeds a *v*P, FP a nominalized VP. The syntactic and semantic characteristics of these complements account for well-known differences between FI and FP, including the previously untreated "obligation" requirement in FI, absent in FP. Despite the structural difference between the two classes, both lack the Voice layer in the embedded event.

Hiaki is another language which has been suggested to lack the relevant Voice projection. Harley (2013) notes that besides the *-tua* 'direct' causative, in which the Causee must be expressed, Hiaki also has a productive 'indirect' causative, *-tevo*, where the Causee is necessarily surpressed, as shown in (11).

(11) Inepo Santoh-ta hitto-tevo-k.
I Santos-ACC treat.medically-CAUS.INDIR-PRF
'I had Santos treated.' (for a medical condition) (Harley 2013: (33))

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When suffixed with *-tevo*, an embedded verb receives a 'passive' or 'impersonal' reading, despite the absence of any passive or impersonal Voice morphology. Harley (2013) argues that the embedded subject is completely absent from the syntax, as evidenced by passivization facts. When a *-tevo* causative is passivized, the Causer is unexpressed and the object of the embedded verb becomes the derived subject.

(12) Santoh hitto-tevo-wa-k.
Santos treat.medically-CAUS.INDIR-PASS-PRF
'(Somebody) had Santos treated.'
(Lit: Santos was caused to be treated.) (Harley 2013: (34))

Thus, the Causee - the embedded subject - is truly syntactically absent, as nothing intervenes between the embedded object and the matrix subject position in (12). The morpheme *-tevo* selects as its complement a constituent which does not contain the external argument-selecting head, as in Folli & Harley's (2007) treatment of Italian causatives with *fare*, or Ramchand (2006) on Hindi indirect causatives. If *-tevo* has such a selectional restriction, the Causee argument will be absent, since the projection which introduces it will necessarily be absent.

This line of argument also extends to indirect causatives in other, unrelated languages such as Turkish, where the theme of the embedded verb is promoted to become the grammatical subject of the clause when passivized. As seen in (13), the derived subject receives nominative case and agrees with the verb of the main clause. The causee is expressed as a DP bearing dative case and is not an intervener for the raising of the embedded theme.

(13) (a) bütün çocuk-lar süt-ü iç-ti-ler.
all child-PL milk-ACC drink-PST-3PL
'All children drank the milk.'

(b) bütün çocuk-lar-a süt-ü iç-ir-di.
all child-PL-DAT milk-ACC drink-CAUS-PST
'(S/he) made all children drink the milk.' (Çetinoğlu et al. 2008: 4a)

(c) süt bütün çocuk-lar-a iç-ir-il-di.
milk all child-PL-DAT drink-CAUS-PASS-PST
'The milk was made (by him/her) to be drunk by children.'
(Çetinoğlu et al. 2008: 4b)

Agent-oriented adverbs are a diagnostic that also points to the absence of an external argument in the embedded layer in the case of Turkish. Such adverbs pick out the causer 'mother' in (14), and not the causee 'child' in Turkish.

(14) anne çocuğ-a kitab-ı isteksizce oku-t-tu.
mother child-DAT book-ACC reluctantly read-CAUS-PST
YES: 'The mother reluctantly made [the child read the book].'
NOT: 'The mother made [the baby read the book reluctantly].'

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These examples have been used to argue for a bare VP analysis or at least the absence of a Voice layer in the embedded event in many languages. Before discussing the presence or absence of VoiceP in SA, I first establish that the clause is bi-eventive in SA, thus VP layer is available in the complement. The possibility of independent manner adverbs, each modifying a different event given the right context, confirms this (e.g. Horvath & Siloni 2010, Rákosi 2011). Consider (15).

(15) aɣa xıfef sa hazd haşiş hēdi.
village.lord quickly made cut.INF grass slowly
'The village lord quickly made (someone) cut the grass slowly.'

Drawing first on the line of work in Bruening (2013), Alexiadou et al. (2015),[6] I argue that the embedded event contains at least a thematic Voice projection. The thematic Voice accounts for (i) the availability of instrument phrases modifying the embedded agent, (ii) the agent-oriented adverbs associated with the embedded agent, (iii) agent-oriented comitatives, (iv) the requirement for the embedded event to have an external argument and lack of stative verbs in the embedded complement, and (v) the acceptability of certain agentive *by*-phrases.

3.1. *Instrument Phrases*

Instrumentals are diagnostics for an external argument layer (i.e. a Voice layer). They tend to occur in the same environments as *by*-phrases (Fillmore 1968, Bruening 2013, Alexiadou et al. 2015). For instance, in (16b) the instrument reading for 'with hammers' is not available in the anticausative/unaccusative, whereas it is available in the passive, (16a).

(16) (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.'

Instrumentals are also grammatical in the MC, which points to the presence of the embedded agent, (17).

(17) (a) aɣa 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.'

[6] Alexiadou et al. (2015) is actually a culmination of a long line of work, dating back at least to Alexiadou & Anagnostopoulou (2004), and dealt with in detail in Schäfer (2008) – and even then building off of earlier literature. I take Alexiadou et al. (2015) to be representative of this line of work.

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(b) dāde sa-tte aɣet şurvan wara ibre.
mom made-3F sew.INF pants with needles
'Mom had the pants sewn with needles.'

These instrument phrases can modify the actions of the implicit agent. This suggests a Voice layer representing such an agent. Note that depending on the felicity of the context, instrument phrases are more saliently ambiguous with respect to whether they refer to the agent of causation or the implicit embedded agent, as in (18).

(18) kemal sa buaɣ 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].'

The main point is that instrumental adverbs can modify the embedded, caused event.

3.2. *Agent-oriented Adverbs*

Agent-oriented adverbs in SA provide another testing ground regarding the availability of an agent in the embedded verb phrase (Ernst 2001, Matsuoka 2013, i.a.). As such, these adverbs are compatible with passives, but not unaccusatives/anticausatives, as represented in (19).

(19) (a) bina ın-faşş-e mı işçiyad wara diqqat.
apartment PASS-demolish-3F by employees with care
'The apartment was demolished by the employees carefully.'
(b) *bina ın-qalab-e mı rua wara diqqat.
apartment INCH-fall.over-3F by itself with care
'The apartment fell over by itself carefully.'

These adverbs can modify the action of the embedded agent, as seen in (20).

(20) (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) halq ırıl-lu le başbaqan i-si farg
public want-him that prime minister 3M-make handle.INF
eqonomi wara aqıl.
economy with mind
'The public wants that the prime minister makes (someone) handle the ecomony wisely.'

Depending on the context, these adverbs may also be ambiguous in terms of whether they modify the action of the matrix agent or the embedded agent. Consider (21).

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(21) aɣa 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].'

3.3. *Agent-oriented comitatives*

Agent-oriented comitatives indicate that the agent had help from the comitative in performing the event. They pattern with instrument phrases and agent-oriented adverbs in picking out a Voice layer (Bruening 2013, Alexiadou et al. 2015). As such, the comitative reading that is available in (22a) is lost with unaccusatives, as in (22b).

(22) (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.

(23) (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) kemal sa faş bina wara işçiyad.
Kemal made demolish.INF apartment with employees
'Kemal made (someone) demolish the building with the employees.'
(the employees helped demolish the building)

The ambiguity of modification regarding the embedded or matrix clause is observed with comitatives as well.

(24) 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].'

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.

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3.4. *Verbs without embedded external argument*

Another diagnostic to demonstrate that the embedded verb phrase is a VoiceP, and not just a VP, involves a constraint on the embedded external argument: as seen thus far, the embedded verb phrase may be transitive or unergative, (25).

(25) (a) ab-i sa patk fo com.
father-my made.3M jump.INF over fence
'My father made (someone) jump over the fence.'

(b) ams cinar-i sa faqz ımbala sabap.
yesterday neighbor-my made run.INF without reason
'Yesterday my neighbor made (someone) run for no reason.'[7]

On the other hand, unaccusative verbs are disallowed.

(26) (a) *kemal sa var mı mardivan-ad.
Kemal made.3M fall.INF from stair-PL
Intended: 'Kemal made (someone) fall from the stairs.'

(b) *ab-i sa mēt mı bert.
father-my made.3M die.INF from cold
Intended: 'My father made (someone) die from cold.'

In addition to the impossibility of unaccusative predicates in the embedded verb phrase, the restriction on stative verbs is another indication of the presence of a Voice layer. Stative predicates are not embeddable under the 'make' causative, as illustrated in (27).[8]

(27) (a) *recel sa bazu kıleb.
man made fear.INF dogs
'The man made (someone) fear dogs.'

(b) *recel sa ifı-llu araba-ma.
man made exist-him car-a
'The man made (someone) have a car.'

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[7] There might be a schwa between *ı* between the consonant sequence *qz* of *faqz* 'run'. I gloss over phonetic details throughout unless they matter to the discussion, and switch between IPA and Latin orthography.

[8] Possession in SA is expressed with the existential particle *ifi* 'there, exist' and a dative clitic.

(i) ifı-nna araba-ma.
exist-us car-a
'We have a car.'

The absence of the clitic leads to a purely existential reading.

(ii) ifi araba-ma.
exist car-a
'There is a car.'

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Following Harley (1995), Folli & Harley (2007: 215), I assume that stative verbs such as 'have', 'fear' do not take an external argument, similar to unaccusative predicates. I interpret this as the absence of a (thematic) Voice layer with such predicates, and hence their incompatibility with the MC. Note that in Sason, such verbs are not passivizable.

(28) (a) kemal ibze kıleb-na.
Kemal fear.3M dogs-our
'Kemal fears our dogs.'[9]
(b) *kıleb-na in-bızo mı kemal.
dogs-our PASS-fear.3PL by Kemal
'Our dogs are feared by Kemal.'

Note that in addition to 'fear', other subject experiencer verbs such as 'enjoy', 'understand' are also ungrammatical in this construction.[10]

(29) (a) *recel sa zavk raqs.
man made enjoy.INF dance
'The man made (someone) enjoy the dance.'
(b) *recel sa samu masala.
man made understand.INF issue
'The man made (someone) understand the issue.'

Furthermore, instrumentals mapped as external arguments are not felicitous. This is illustrated in (30).

(30) (a) #recel sa fadu babe.
man made open.INF door
NO: 'The man made some key open the door.'
YES: 'The man made someone open the door.'
(b) #recel sa qas tıffaye.
man made cut/slice.INF apple
NO: 'The man made some knife cut the apple.'
YES: 'The man made someone cut the apple.'

On the other hand, it should be noted that although the embedded agent of the MC is most saliently interpreted as human, there is no such a restriction. As such, an animal interpretation is also possible given with a salient context.

[9] Some speakers use the form 'fear from dogs' with 'fear' selecting a PP, rather than 'fear dogs'. Such speakers also do not allow passivization. Both arguments are presumably introduced vP-internally, though I leave this issue aside for the purposes of this paper.

[10] Thanks to an anonymous reviewer for suggesting to try these predicates and the following examples in this section to get a more complete picture.

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(31) kemal sa zaraɣ sınnor-ad.
Kemal made sting.INF cat-PL
'Kemal had the cats stung.' (OK: by some bees)[11]

Verbs such as 'rot', 'stink' are not embeddable under the MC.

(32) *kemal sa pat mı uç le nahar.
Kemal made rot.INF from face of sun
'Kemal made rot/stink because of the sun.'

I interpret this asymmetry as an argument that the complement of 'make' must contain a thematic VoiceP.

3.5. *Agentive by-phrases*

By-phrases are also grammatical with some restrictions on its acceptability. Most felicitous examples are when the DP embedded under *by* is indefinite, as in (33a). Note that it is introduced in the same way external arguments are in canonical passives (cf. 53), i.e. with the preposition *mı* 'by, from'. Definite *by*-phrases lead to ungrammaticality, as in (33b).[12]

(33) (a) (?)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.'
(b) sa-tte addil beyt (*mı usta).
made-3F build.INF house (*by the.builder)
'She had the house built by the builder.'

Indefinite *by*-phrases further improve when they are "heavy" (heaviness reminiscent of 'heavy-NP shift'), as illustrated in (34).

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[11] Regarding this sentence, a consultant in fact said: "I guess anything is possible in this world, so if Kemal is evil and forces some bees somehow, this is possible."

[12] The definiteness restriction on by-phrases has been commonly noticed for a variety of constructions and languages. For instance, Sigurðsson & Wood (2020) report a very similar restriction for Icelandic 'let'-causatives to that of SA MCs. Kaiser & Vihman (2006: 132) note that in Estonian, generalized, unspecific groups are possible as *by*-phrases whereas specific, identifiable individuals are not.

There are other constructions with similar restrictions on *by*-phrases. Pitteroff (2014) mentions that German impersonal passives have similar constraints. Ability adjectives in English also exhibit this restriction.

(i) (a) *This is doable by the child.
(b) This is doable even by a child.

A similar constraint is observed even in English *tough*-construction, in that the more indefinite, generic the *by*-phrase is, the better it is. I leave aside why this restriction is widely available across constructions and languages, including SA MCs. Though see e.g. Oltra-Massuet 2013, Alexiadou 2018 for some discussion in the context of *-able* adjectives.

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(34) ırı-nni a-si addil beyt mı usta-ma ande (le) y-are
want-me 1SG-make build.INF house by builder-a who (that) 3M-know
şıne y-addel.
what 3M-do
'I want to have the house built by a builder who knows what they are doing.'

The best examples are with instances in which an impersonal or generic interpretation is available.

(35) beaqıl ye isi addil musluq mı tamirci-ma hēdi.
unwise cop.3SG make repair.INF tap by repairman-a slow
'It would be unwise to make the tap repaired by a slow repairman.'

The possibility of *by*-phrases as in (33–35) suggests that there is a Voice layer, introducing an agent role that can be modified/identified by the *by*-phrases.

To summarize, we have thus far seen five diagnostics arguing for the presence of a thematic Voice layer: (i) the availability of instrument phrases modifying the embedded agent, (ii) the agent-oriented adverbs associated with the embedded agent, (iii) agent-oriented comitatives, (iv) the requirement for an external argument in the embedded event, thus the absence of unaccusative and stative predicates, and (v) the acceptability of certain *by*-phrases.

These diagnostics show that the MC in SA differs from similar constructions in embedding a structure up to VoiceP. Next, I investigate the size of complement clause of 'make'. I argue that 'make' embeds VoiceP, but lacks higher projections. In this respect, it also differs from other causative constructions which have full clausal complements.

3.6. *The size of the embedded clause*

Clitic Left Dislocation (CLLD) demonstrates that no full CP is available in embedded clause. Direct or indirect object arguments in Arabic may normally be CLLD-ed to a left-peripheral position in the CP domain, be it matrix or embedded CP, (Benmamoun 2000, Aoun et al. 2010), as in (36) (The CLLD-ed DP and the resumptive pronoun related to it are italicized).[13]

[13] An anonymous reviewer asks about the status of object dislocations in CLLD and passives. Following the traditional approaches to these phenomena, whose arguments and motivations apply to SA as well, I take it that personal passives involve raising of an object from grammatical object position to grammatical subject position, Spec,TP, and is an instance of Ā-movement. On the other hand, CLLDed elements can be generated as a result of movement to the left periphery, thus an instance of Ā-movement, or can be base-generated in the left periphery, and be related to a resumptive clitic. Either way, the CLLDed element is located in the CP domain, which is what matters for our purposes. A complete discussion of these phenomena would take us too far afield in this paper, however. See Benmamoun 2000, Aoun et al. 2010, Aoun & Benmamoun 1998, Aoun et al. 2001, a.m.o. for the discussion of these topics.

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(36) (a) *gaste* ams qari-tu-*a.*
newspaper.F yesterday read-1SG-it.F
'The *newspaper*, I read *it* yesterday.'
(b) m-i-qbel le *gaste* ams qari-tu-*a.*
NEG-3M-accept that newspaper.F yesterday read-1SG-it.F
'He doesn't accept that *the newspaper*, I read *it* yesterday.'

However, (37) shows that such objects may not be CLLD-ed to the right of 'make', which indicates that the complement is not a full CP.

(37) (a) *ams dāde sa-tte *haşiş* hazd-*u.*
yesterday mom made-3F grass.M cut-it.M
'Yesterday mom made *the grass* (someone) cut *it.*'
(b) *ams dāde sa-tte *gaste* qaru-*a.*
yesterday mom made-3F newspaper.F read-it.F
'Yesterday mom made *the newspaper* (someone) read *it.*'

Moreover, neither the finite complementizer *le* nor the subjunctive complementizer *te/ta* are possible in SA MCs.

(38) *ams dāde sa-tte le/te hazd haşiş.
yesterday mom made-3F that/to cut grass
Intended: 'Yesterday mom made that (someone) cuts the grass.' OR
'Yesterday mom made that (someone) cut.{sbjv} the grass.'

Negation is also disallowed on the infinitive, as shown in (39).

(39) (a) nana mı-n-ısi xanni.
we NEG-1PL-make sing
'We don't make anyone sing.'
(b) *nana n-ısi mı-xanni.
we 1PL-make NEG-sing

The exact position of negation in the clause structure, i.e. whether it is located above TP or between TP and AspP, is not central to the discussion in this paper since the main point is to test its availability in the MC regardless of its exact position in the extended projection. In the literature on Arabic negation, some researchers have argued that negation is location between TP and AspP (e.g. Benmamoun 2000, Aoun et al. 2010), whereas others claim that it is above TP (e.g. Soltan 2007). An initial investigation of negation in SA suggests that the latter approach might be the correct one for SA negation, as evidenced by the relative position of negative morpheme with respect to the auxiliary, as in (40) (I leave the morpheme *ka* unglossed since at this point its exact status is unclear to me. Though see Akkuş 2015 in which I treat it as a low tense marker).

(40) nana ma-kınna kı-nayel şi.
we NEG-be.1PL ?-eat.IPFV food
'We were not eating food.'

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The examples in (41) show that the embedded clause cannot have distinct temporal modification, thus point to the absence of bi-clausality, and more precisely the absence of a TP layer (e.g. Wurmbrand 2001 et seq, Landau 2004, Legate 2014).

(41) (a) *ams aɣa sa hazd haşiş lome.
yesterday village.lord made cut.INF grass today
'Yesterday the village lord made (someone) cut the grass today.'
(b) *ams dāde sa-tte qaru gaste lome.
yesterday mom made-3F read.INF newspaper today
'Yesterday mom made (someone) read the newspaper today.'

As expected, it is not possible to have a single temporal modifier in the embedded structure. Consider (42) with the adverb 'tomorrow', which cannot be associated with the matrix clause since the matrix clause is in the past tense, and fails to be associated with the embedded clause as well. The sentence becomes grammatical if the matrix clause was in the future tense.

(42) *aɣa sa hazd haşiş ɣade.
village.lord made cut.INF grass tomorrow.
'The village lord made (someone) cut the grass tomorrow.'

With respect to the realization of aspect, as a common trait of Semitic languages, it is not easy to pinpoint a distinct aspect morpheme. To this end, for aspect in SA, building on the previous literature (e.g. Benmamoun 2000 for Arabic; Kramer 2014 for Amharic), Akkuş (2015: 17) suggests that "aspect is morphologically encoded by the position and phonological realization of the agreement marking on the verb". According to this suggestion, we can track the aspect on the basis of the agreement marking on the verbal root, as such the absence of it can be interpreted as the lack of an Asp on the infinitivals. Relatedly, in SA the passive prefix is sensitive to aspect, as in (43), and is the portmanteau realization of Aspect+Voice heads. Thus, we can take it to be the fusion of Aspect and Voice heads, with agreement added onto it though the exact implementation is not crucial.

(43) (a) potad *in*-xɪsl-o kɪl-lom.
clothes PASS.IPFV-wash.IPFV-3PL every-day
'Clothes are washed every day.'
(b) potad *ɪn*-xasal-o ams.
clothes PASS.PFV-wash.PFV-3PL yesterday
'Clothes were washed yesterday.'

The impossibility of the passive prefix on the infinitivals also indicates the lack of the aspect projection.

(44) beaqɪl ye isi **in*-/**ɪn*-addil musluq mɪ
unwise cop.3SG make PASS.IPFV/PASS.PFV-repair.INF tap by
tamirci-ma hēdi.
repairman-a slow
'It would be unwise to make the tap repaired by a slow repairman.'

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To summarize, the discussion thus far indicates that 'make' embeds an agentive VoiceP, but lacks CP, TP, NegP and AspP.[14] Given this background, the next section establishes that this thematic VoiceP manifests an active-passive alternation.

However, before proceeding with that discussion, I investigate another alternative, i.e. 'make' embeds a nominalized complement (which is what Folli & Harley 2007 suggests for *faire par* in Romance causatives). I contend that this analysis cannot carry over to the MC in SA.

3.7. *An alternative: 'make' embeds a nominalized complement*

I use two diagnostics to demonstrate that 'make' does not take a nominal complement, but a verbal one. First, Folli & Harley (2007: 19) draw the generalization that if a *v* takes a nominal complement (including for *faire infinitif* vs *faire par* (Kayne 1975)), it requires an animate agentive external argument - thus disallows causers such as *rage, generosity* or *famine.* Therefore, they are disallowed in FP *fare* (but not in FI *fare*, which embeds a regular vP). This is illustrated in (45a) for Italian and in (45b) for French (examples from Folli & Harley 2007: 27–28).

(45) (a) *La rabbia fece rompere il tavolo da Gianni.
the rage made break the table by Gianni
'Rage made Gianni break the table.'

(b) *La famine a fait manger des rats par les habitants de
the famine has made eat of.the rats by the inhabitants of
la ville.
the city
'The famine made the inhabitants of the city eat rats.'

Applying this generalization to SA MCs, (46) shows that 'make' does not take a nominal complement. Causers such as *earthquake* and *fear* are licit in this construction.

(46) (a) zelzele sa-tte maş buyud-en.
earthquake made-3F leave.INF houses-their
'The earthquake made (some people) leave their houses.'

(b) bazu isi adu qararad kotti-n mı calabma insanad.
fear 3M.make give.INF decisions bad-PL by some people
'Fear makes bad decisions made by some people.'

---

[14] Note that there is no adjacency requirement between 'make' and 'infinitive' as shown by the ability of contrastively focussed elements to appear between them. Consider (i).

(i) dāde sa-tte ŞURVAN-I xassil (qaway-i la).
mom made-3F pants-my wash.INF shirt-my no
'Mom made (someone) wash my pants, (not my shirt).'

For further discussion, see Akkuş (To appear), where it is treated as a low focus position, a point also brought up by a reviewer.

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Note also the contrast between (47a) and (47b). In (47a), 'wash' is used in an argument position, is nominalized, requires the use of the preposition *le* 'of',[15] and has a different morphological form. This gerundial form is identical to cognate objects in the language. This form is not possible for the 'make' causative construction.

(47) (a) xasıl *(le) potad in-yaddel fı saqe mı rıcel.
wash.GRND of clothes PASS-do in lake by men
'Washing of clothes is done in the lake by men.'[16]

(b) aɣa sa xassil / *xasıl (*le) potad.
village.lord made wash.INF / wash.GRND of clothes
'The village lord made (someone) wash the clothes.'

These two tests show that 'make' does not embed a nominalized complement.

4. An embedded VoiceP with active–passive alternation

This section deals with the status of the thematic Voice in the complement of the causative 'make'. Given the discussion in the previous section, one possible approach is to consider analyzing the embedded Voice head as passive, as in Pitteroff's (2015) analysis of *let*-middles constructions (*sich lassen*) in German (also see Bhatt & Embick 2004/2017 for Hindi-Urdu). However, I argue that the embedded Voice is not exclusively passive, instead manifests an active-passive alternation despite the absence of a morphological reflex of this alternation.[17]

The generalization we reach is that in the presence of a *by*-phrase the embedded VoiceP is passive, while in its absence the VoiceP is active. The arguments for this active-passive alternation (i) the (im)possibility of A-moving the embedded object when the matrix 'make' is passivized, (ii) sluicing, and (iii) nonpassivizable idioms.

4.1. *(Impersonal) passive*

One reason to think that the embedded construction shows an active-passive alternation comes from the passivization of the matrix 'make'. When the embedded clause contains a *by*-phrase, it behaves like a canonical passive, in that the embedded verb does not license the object, instead behaves as licensed by the matrix 'make'. Therefore, when 'make' is passivized,[18] the embedded theme raises to grammatical

[15] Note that *le* is also a complementizer, and has several other functions.

[16] cf. the garden-variety use of gerundials, (i). The loss of the ı vowel in 'wash' is phonologically conditioned.

(i) *potad,* xallıs-tu xasl-*en.*
clothes finished-1SG wash.GRND-them
'Clothes, I finished washing them.'

[17] Harley (2017) notes that languages indeed have many constructions which have syntactic and semantic properties of passives, yet lack any overt morphological exponent of passivization, especially in embedded contexts. See Pitteroff (2014, 2015) for a very similar view.

[18] cf. German 'let'-middles are similar to SA 'make'-causatives in terms of not having a passive morphology. However, German does not allow 'let' to passivize, whereas the passivization of

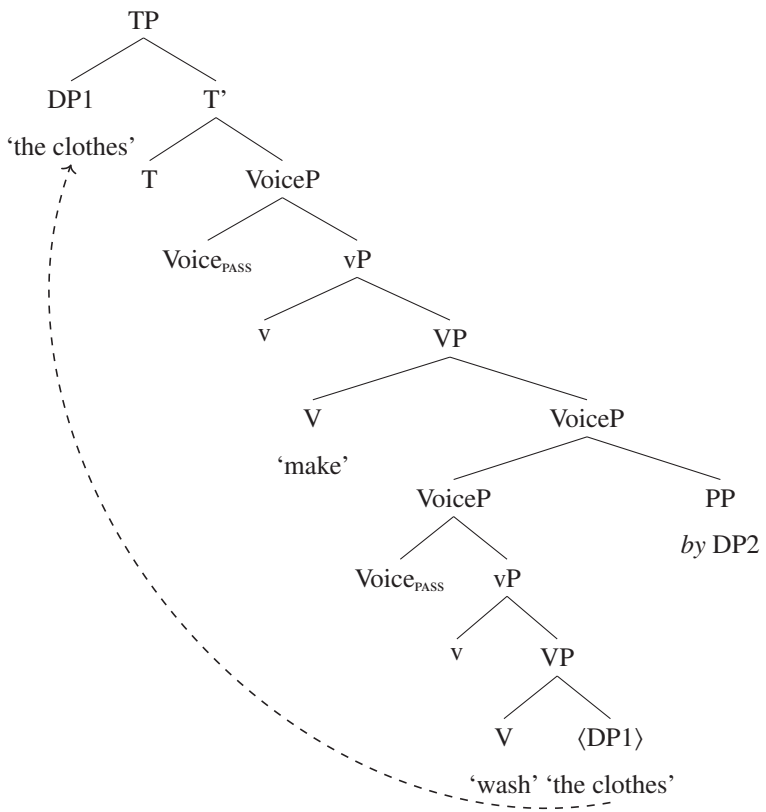
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subject position and shows verbal agreement. Consider (48a-48b). Raising is not possible without a *by*-phrase, as illustrated in (48c).

(48) (a) 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.'
(b) potad ın-so xassil mı mara-ma pir-e.
clothes PASS-made.3PL wash.INF by woman-a old-F
'Clothes were made to be washed by some old woman.'
(c) *potad ın-so xassil.
clothes PASS-made.3PL wash.INF
Intended: 'Clothes were made to be washed.'

We can represent (48b) as (49), in which the embedded clause has a *by*-phrase, indicating its passive nature, and the embedded theme raises to the grammatical subject (as such it manifests subject-verb agreement) when the matrix 'make' is also passivized.

(49)



'make' is possible in SA; therefore 'make' is a lexical verb in SA, rather than a functional verb as has been argued for German (Pitteroff 2015: 120).

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Without a *by*-phrase, the embedded clause behaves like a canonical active, with the embedded object behaving as though licensed by embedded verb.[19]

The embedded theme remains a grammatical object even when 'make' is passivized (see Section 5). Passivization of 'make', when the embedded clause lacks a *by*-phrase, results in an impersonal passive. The embedded theme does not raise to the subject position. No argument is associated with the grammatical subject position, as such 'make' is realized with the default 3sg masculine agreement. Consider (50)–(51).

(50) ın-sa addil bina.
PASS-made.3M build.INF building.F
'Someone$_i$ made (someone$_k$) build the building.'

(51) (a) kemal sa xassil potad-na.
Kemal made.3M wash.INF clothes-our
'Kemal made (someone) wash our clothes.'
(b) lora acepma ın-sa xassil potad-na.
then somehow PASS-made wash.INF clothes-our
'Then somehow someone$_i$ made (someone$_k$) wash our clothes.'

Crucially, under the active embedded analysis, this is expected. It turns out without a *by*-phrase, the embedded clause behaves as active, even when the matrix 'make' is passivized.

SA does indeed independently have impersonal passives, as in (52).

(52) (a) lora ın-sa dans (mı misafir-ad).
then PASS-did dance (by guest-PL)
'Then it was danced (by the guests).'
(b) ın-zak asriye kull-u.
PASS-laughed evening.M all-M
'It was laughed the whole evening.'

To summarize, the passivization of the matrix 'make' allows us to demonstrate the presence of two possible embedded structures, one active and one passive, despite the absence of a morphological reflex of this alternation. Without a *by*-phrase, the embedded structure behaves as active, as such the embedded theme is licensed by the embedded verb, and remains a grammatical object even when 'make' is passivized (see Section 5). Yet, the presence of a *by*-phrase necessarily leads to a passive clause, in that the embedded verb cannot license the embedded theme, which seems to be licensed by the matrix 'make'. Accordingly, when 'make' is also passivized, the theme raises to become the grammatical subject.

Some remarks are in order regarding the obligatoriness of *by*-phrases for a passive structure in the MC, since this contrasts with garden-variety clausal passives in which *by*-phrases are optional, (53).

[19] See Section 6 for the analysis of active Voice without a specifier, be it DP or ϕP.

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(53) 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.' (Yakut 2013: 7; with slight modifications)

Another instance the obligatoriness of a *by*-phrase is reported by Ingason (2016) for Icelandic, where in the caused-experiencer construction, the causing event can be expressed as a *by*-phrase adjunct, but this adjunct cannot be omitted. This is illustrated in (54).

(54) Stelpunum var skemmtun *(af dansinum).
girls.the.DAT was entertainment.NOM *(by dance.the)
'The girls were entertained by the dancing.' (Ingason 2016: (145))

Again in Icelandic, *by*-phrases in short passives are never obligatory, as illustrated in (55).

(55) Stelpunum var skemmt (af Jóni).
girls.the.DAT was entertained (by John)
'The girls were entertained by John.' (Ingason 2016: (147))

As rightly noted by a reviewer, given the generalization regarding the obligatoriness of the *by*-phrase, we are faced with four different constructions in SA: 'regular active', 'implicit active', 'regular passive' and 'embedded passive', in the reviewer's terms. Noting from the start that any explanation must remain at a speculative level at this point, I believe in fact at the conceptual level, it is possible to categorize the four constructions in a way that makes a more symmetric division for the denotations of passive and active. Semantically, the passive is traditionally associated with two semantic denotations, one for the version with implicit agent, and the other one with the *by*-phrase (see e.g. Bruening 2013). On the other hand, the agent in the active is associated with a single syntactic and semantic denotation, i.e. the presence of a projected argument in Spec,VoiceP. Although it still does not explain the obligatoriness of *by*-phrases, we can say that in fact the SA facts allow us to have two semantic denotations for the agent in the active as well (which is what this paper essentially argues for; see Section 6.2), thus making it parallel to the passive. As such, the active could have a denotation for a version with a specifier and another denotation for the version without a specifier (cf. Wood & Sigurðsson 2014, Wood 2015).[20]

[20] As noted by a reviewer, the discussion in Section 6 indicates that there is more to the typology of Voice than what is presented here. This is indeed true, since a comprehensive overview of the typology of Voice is beyond the scope of this paper. See e.g. Wood 2015, Schäfer 2017 for some discussion. Also see Legate (to appear) for the view that noncanonical passives crosslinguistically exhibit the full range of possibilities in terms of variation, supporting an approach whereby universal grammar is underspecified for the characteristics of voice.

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It should also be noted that it may not be a coincidence that both in SA and Icelandic, the obligatoriness of the *by*-phrase is observed in causative constructions. Ingason (2016) attributes the obligatoriness of the *by*-phrase to the causative semantics in the Icelandic construction that he examines, yet does not elaborate on it. The different behavior from matrix passives, as also noted by the same reviewer, also supports the view that the obligatoriness may be tied to the causation somehow. It could be that the selection requirements of 'make', and the size of the complement clause (and possibly other factors) play a role in this obligatoriness. Thus, one could try to resort to either a semantic or syntactic explanation, but since both remain stipulative in the absence of sufficient crosslinguistic data, I must leave this significant point an open question.[21] As mentioned by Ingason, it is also worth exploring if *by*-phrases are syntactic arguments rather than adjuncts. The "smuggling" analysis of the passive by Collins (2005) is one such proposal. This analysis would still need to account for why some *by*-phrases are obligatory and not others. It is also possible that languages tend to have more constructions with obligatory *by*-phrases, apart from the Icelandic and Sason Arabic examples, yet these might have gone unnoticed thus far. Further studies on less studied Voice constructions in general, rather than short passives, might reveal a pattern and give us enough empirical base to draw a theoretical claim.

4.2. *Sluicing*

Another reason to think that the embedded complement manifests 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 (56).

(56) (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 (57), whereas sluicing disallows voice mismatch, which is shown in (58).

(57) (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 itix in-fıde mı ande le ırıllu.
this.M computer can PASS-open by who that wants
'This computer can be turned on by anyone who wants to.'

[21] For instance, we would need to encode that when 'make' selects for an active Voice, it selects for the denotation without a specifier, and when it selects for a passive Voice, it selects for the version with a *by*-phrase.

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

Turning to the MC, we observe that the embedded verb patterns as active for sluicing in the absence of a *by*-phrase, as in (59).

(59) mafya sa qadıl mara-du, hama m-ore (*mı) ande.
mafia made murder.INF wife-his but NEG-know.1SG (*by) who
'The mafia leader made (someone) murder his wife, but I don't know (*by) who'

It is indeed possible to have different interpretations depending on whether sluicing targets the main clause or the embedded clause, as shown in (60). In (60a), the remnant "who" indicates that the sluice is active and it can target the caused event "build" in the complement of "make", diagnosing "build" as active. In (60b), the remnant "by who" indicates that the sluice is passive, and it can only target the matrix clause, an impersonal passive, not the caused event "build", again diagnosing "build" as active.

(60) (a) ın-sa addil beyt, hama m-ore ande.
PASS-made build.INF house but NEG-know.1SG who
'It was made (someone) build the house, but I don't know who'
YES: who built the house
NOT: who made somebody build the house

(b) ın-sa addil beyt, hama m-ore mı ande.
PASS-made build.INF house 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
NOT: who built the house

When a 'by'-phrase is present, the embedded verb now patterns as passive for sluicing.

(61) kemal sa xassil potad mı mara-ma pir-e, hama m-ore
Kemal made wash clothes by woman-a old-F, but NEG-know.1SG
tam *(mı) ande.
exactly *(by) who
'Kemal made the clothes be washed by an old woman, but I don't know exactly *(by) who.'

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(62) potad (mı ımm-i) ın-so xassil mı nes-ma, hama
clothes (by mother-my) PASS-made.3PL wash.INF by person-a but
m-ore *(mı) ande.
NEG-know.1SG *(by) who
'Clothes were made (by my mother) to be washed by a person, but I don't know *(by) who.'

Thus, sluicing provides another strong piece of evidence that the embedded VoiceP in the MC shows an active-passive alternation.

4.3. *Nonpassivizable idioms*

SA has a class of non-passivizable idioms, as in (63). These idioms are another test for active-passive alternation (cf. Kayne 1975, Folli & Harley 2007). This also demonstrates that the restriction against unaccusatives is not semantic. The predicate 'getting lucky' is not agentive, but the verb 'break' has an external argument.[22]

(63) (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
YES: 'The devil's leg was broken by Kemal.'
NO: 'Kemal finally got lucky.'

These idioms may occur in the MC only in the absence of *by*-phrases.

(64) (a) kul çax tı-si qarf faɣz le şeytan.
every time 3F-make break.INF leg of devil
'Every time she makes (someone) get lucky.'

[22] As noted by an anonymous reviewer, the selectional property of 'make' would require this head to bear the θ-role Agent (or Initiator). This is a view I also share, and in fact when compared with the properties of, for instance, geminate causatives, finds further support. Both types of causatives may embed an event such as *wash the clothes*. However, the MC requires the embedded agent to have the Initiator role, whereas gemination requires the Causee theta-role (as such, the impossibility of agent-oriented instrumentals, comitatives or adverbs, as well as the choice of a different preposition (cf. 7c) with gemination causatives.

One option is to follow Folli & Harley's (2007) flavors of *v* hypothesis (building on Hale & Keyser 1993), which varies in interpretation across verb categories, as such v_{BECOME} yields inchoative reading, and v_{DO} derives transitive clauses. An implementation along these lines would capture the difference the MC and gemination exhibits despite embedding the same event. This would be achieved by indexing the requirement on the selecting head, as such 'make' selects for an agentive VoiceP, whereas the causativizing head in geminates selects for an ApplP (or applicative VoiceP in Legate's (2014) terms). Note that this does not explain the obligatory implicitness of the embedded agent in the MC as opposed to overtness of the causee in gemination, which probably has another reason. Still, it would serve as a way of capturing several contrasting properties.

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(b) kul çax tı-si qarf faɣz le şeytan mı oranci-ma azimli.
every time 3F-make break.INF leg of devil by student-a determined
YES: 'Every time she has the devil's leg broken by a determined student.'
NO: a determined student finally gets lucky.

Idioms of this sort contrast with passivizable idioms, illustrated in (65).

(65) (a) kemal hatarax ro-i.
Kemal burned heart-my
'Kemal broke my heart.'
Lit: 'Kemal burned my heart.'
(b) ro-i ın-hatarax mı kemal.
heart-my PASS-burned by Kemal
'My heart was broken by Kemal.'

Unlike non-passivizable idioms, which require the absence of *by*-phrases, such idioms impose no restriction, (66).

(66) (a) sa-tte harx ro le kemal.
made-3F burn.INF heart of Kemal
'She made (someone) break Kemal's heart.'
(b) sa-tte harx ro le kemal mı nes-ma gıze kotti.
made-3F burn.INF heart of Kemal by person-a such bad
'She had Kemal's heart broken by such a bad person.'

Following Harley & Stone (2013), Harley (2017), I assume that non-passivizable idioms are impossible in (64b) since they require an active Voice to be present. On the other hand, the passivizable idioms are possible with or without a *by*-phrase, since the former option indicates an active Voice, whereas the latter a passive Voice.

4.4. *Interim summary*

All of the evidence combined supports the proposal that syntactically, the embedded construction exhibits an active-passive alternation in SA MCs.

First, we find evidence that there is at least a thematic Voice layer (the availability of *by*-phrases, instrument phrases, agent-oriented adverbs, external argument restriction, etc.). Then we find a variety of indications that there is an active-passive Voice projection in the complement of 'make'. In addition to the passive being marked via obligatory *by*-phrases, several diagnostics converge on this alternation: (i) the fact that 'make' can be passivized, and that the object is not promoted unless the embedded clause itself is passivized (ii) sluicing, and

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(iii) nonpassivizable idioms. As such, this construction varies from similar constructions from other language, some of which mentioned above.

In the next section, I demonstrate that the embedded theme remains as the grammatical object in the active even when 'make' is passivized and the embedded verb is active.

5. Theme as the grammatical object

This section shows that the theme argument is a grammatical object independently of whether 'make' is active or passive. In other words, the theme shows properties of a grammatical object of a transitive construction rather than those of a derived subject, i.e., a grammatical subject of passives. Therefore, the discussion shows that 'make' may embed an active VoiceP with a grammatical object licensed by the embedded verb. Given the standard view about active (transitive) clauses (cf. Burzio (1986), Chomsky (1995), i.a.), this implies that the embedded agent is projected despite being implicit, which is discussed in Section 6.[23]

5.1. *Definiteness effect*

The first piece of evidence comes from the definiteness effect. In SA, indefinite subjects tend to occur postverbally with the possibility of appearing preverbally as well. On the other hand, definite subjects are strongly preferred for many speakers in preverbal position. Consider (67).[24]

(67) (a) ca zıɣer-*?(ma).
came.3M child-*?(a)
'A/*?The child came.'
(b) zıɣer-(ma) ca.
child-(a) came.3M
'A/The child came.'

The low theme in the passive also exhibits definiteness effects, as in (68).

[23] The discussion here also relates to Burzio's (1986) since the standard assumption is that transitivity arises through a Voice functional head (Kratzer 1996) (or the projection of little v of Chomsky (1995), relying on work by Larson (1988) and Hale & Keyser (1993)), which (a) licenses a second Merge, introduces an external argument (in its specifier), and (b) forms an abstract Case (or Agree) relation with an object. As such these two properties form the so-called Burzio's (1986) generalization. The SA MCs also bear on the issue of whether Case licensing of a grammatical object is possible for VoiceP and not dependent on the projection of a specifier, be it in the form of a grammatical subject, e.g. Burzio's (1986) generalization, (also see Marantz 1991, Woolford 2003, McFadden 2004), or as ϕ-features, i.e., the weak implicit argument, in Spec,VoiceP (Legate 2014). See Šereikaitė (2020) for the view that Burzio's generalization is subject to a parametric variation.

[24] Note this pattern is unlike other Arabic varieties that do not allow indefinite subjects preverbally.

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(68) (a) ın-adal beyt-*?(ma)
PASS-built.3M house-*?(a)
'A / *?The house was built.'
(b) beyt-(ma) ın-adal.
house-(a) PASS-built.3M
'A/The house was built'

However, the low embedded theme in the complement of 'make' does not, as in (69), regardless of whether 'make' is active or passive.

(69) (a) sa addil beyt-(ma).
made.3M build.INF house-(a)
'He made (someone) build a/the house.'
(b) ın-sa addil beyt-(ma).
PASS-made build.INF house-(a)
'It was made (someone) build a/the house.'

This shows that the embedded theme shows properties of a grammatical object of a transitive construction rather than those of a derived subject.

5.2. *Clitic Left-Dislocation (CLLD)*

The second argument that indicates that the embedded theme is the grammatical object comes from the fact that it can undergo CLLD.

(70) *haşiş*, ams aɣa sa hazd-*u.*
grass yesterday village.lord made cut-it.M
'The grass, yesterday the village lord made (someone) cut it.'

As discussed in Section 3.6, direct or indirect object arguments in Arabic varieties may be clld-ed. However, the grammatical subject cannot be CLLD-ed. This holds both for the thematic subjects, (71a), as well as the underlying objects raised to become the subject via passivization, (71b).

(71) (a) *kemal* qara-(**u*) gaste.
Kemal.M read.PFV-him newspaper.F
'Kemal, he read the newspaper.'
(b) *kemal* ın-qadal-(**u*).
Kemal.M PASS-kill.PFV-him
'Kemal, he was killed.'

When the matrix verb is passive, and there is a *by*-phrase associated with the embedded verb, the theme cannot undergo CLLD.

(72) gaste ın-satt-e-(*a) qaru-(*a) mı nes-ma tawwil.
newsaper.F PASS-make.F-it.F read.INF-it.F by person-a tall
'The newspaper, it was made [read by a tall person].'

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(73) pot-ad (mɪ ɪmm-i) ɪn-sa-o-(*en) xassil-(*en) mɪ
clothes-PL (by mother-my) PASS-make-3PL-them wash.INF-them by
nes-ma.
person-a
'Clothes were made (by my mother) washed by a person.'

In (74), lack of agreement on the main verb indicates that it is an impersonal passive. The embedded clause is active, indicated by the lack of *by*-phrases. Given that no DP is linked to the grammatical subject position in impersonal passives, the DP associated with the embedded theme clitic is located in the CP domain.

(74) *kitabad*, ɪn-sa qaru-*en*.
books PASS-made read.INF-them
'The books, it was made (by someone) that someone read them.'

These diagnostics demonstrate that the embedded theme functions as the grammatical object, licensed by the embedded verb in the embedded active VoiceP. Assuming the standard view about active (transitive) clauses (cf. Burzio (1986), Chomsky (1995), i.a.), the straightforward expectation is that the embedded agent is projected despite being implicit. The next section deals with the syntactic and semantic status of the null implicit agent.

6. Embedded agent as a free variable

In light of the above discussion, we can deal with the question of whether the implicit argument is syntactically projected or not in the active complement of 'make' given that the embedded agent is null. I contend that the embedded agent is not projected in the embedded Spec,VoiceP, but is present as a free variable on the Voice head (in the sense of Heim 1982). I also discuss the possibility of the implicit argument being projected as a ϕP (e.g. Legate 2014, Landau 2010) and contend against it on the basis of recent work.

6.1. *The implicit embedded agent and licensing*

The diagnostics in Section 3 identify the presence of a thematic Voice, but do not necessarily entail the syntactic projection of such arguments. For instance, Bhatt & Pancheva (2006, 2017) conclude that in some cases implicit arguments seem to be syntactically active, but that there is no good evidence to suggest that they are syntactically projected (see also Williams 1985, Roeper 1987, Landau 2010, Legate 2014, Collins 2018a, b, Šereikaitė 2020 for the discussion of implicit arguments).

This section investigates (i) anaphor binding, (ii) depictive licensing and (iii) scope in the MC and discusses their implications for the status of the embedded agent.

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6.1.1. *Reflexives, reciprocals and depictives*

Sason Arabic exhibits a contrast between active and passive clauses in terms of the binding of reflexives. (75) shows that reflexives need a projected binder, thus are not licensed in passives.

(75) (a) zıɣar$_i$ adl-o odav (mışa roen$_i$).
children did-3PL homework for themselves
'The children did the homework (for themselves).'
(b) odav ın-adal (*mışa roen/rou).
homework PASS-did.3M for themselves/himself
'The homework was done for (*themselves/himself).'

Example (76) demonstrates that the reflexive is not licensed by the embedded agent in the active complement of 'make' causatives, either.

(76) iya$_i$ satte addil$_k$ odav (*mışa rou$_k$ / roen$_k$).
she made do.INF homework for himself / themselves
'She$_i$ made (some person$_k$ / people$_k$) do the homework for himself$_k$ / themselves$_k$.'

Reciprocals pattern like reflexives in needing a projected binder; therefore, they are also not licensed in passives. Consider (77).

(77) (a) calabma insan-ad$_i$ bas-o baz-en$_i$.
some human-PL kissed-3PL each other-3PL
'Some people$_i$ kissed each other$_i$.'
(b) *baz-en ın-bas-(o).
each other-3PL PASS-kissed-3PL
'Each other was/were kissed.'

The reciprocal is also not licensed by the embedded agent in the active complement of 'make' causatives. This is illustrated in (78).

(78) *iya satte bās$_k$ baz-en$_k$.
she made kiss.INF each other-3PL
'She made (some people) kiss each other.'

Depictives also require projection of their licensors in SA: accordingly, they are not allowed in passives, as shown in (79).

(79) (a) nes-ma$_i$ amal araba (sarxoş$_i$).
person-a drove car (drunk)
'Someone$_i$ drove the car drunk$_i$.'
(b) araba ın-amal-e (??sarxoş).
car.F PASS-drove-F (??drunk)
'The car was driven drunk.'

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Similar to reflexives and reciprocals, depictives also are not licensed by the embedded agent in the active complement of the MC.

(80) (a) nana$_i$ mı-ni-si amıl$_k$ araba (sarxoş$_{i/*k}$).
we NEG-1PL-make drive car drunk
'We$_i$ don't let (anyone$_k$) drive the car drunk$_{i/*k}$.'
(b) nana$_i$ si-nna karu$_k$ xanni (sarxoş$_{i/*k}$).
we made-1PL write.INF song drunk
'We$_i$ made (someone$_k$) compose the song drunk$_{i/*k}$.'

6.1.2. *Scope*

The scopal interaction with negation provides another piece of evidence that the null embedded agent is not solely a PF-matter, but that it has interpretive results. I should note that this test is not perfect since, as shown in Section 3.6, negation cannot be in the embedded clause. Still, if there were a null projected agent we might expect it to be able to raise (e.g. QR at LF) above negation). Therefore, it is still worth discussing.

Example (81) demonstrates that in cases where the embedded agent is null, it necessarily takes scope under negation.

(81) nana mı-n-ısi xanni.
we NEG-1PL-make sing.INF
'We don't make sing.'
YES: We don't make anyone sing.
NO: We don't make a certain person sing.
neg > some, *some > neg

The infelicitousness of the sentence in (82) confirms the scopal judgments in (81). This is because whenever the first sentence is uttered truthfully, there is no person that will sing in the wedding, thus the follow-up sentence conflicts with the meaning of the antecedent discourse.

(82) sıma-tu le mı-isi xanni fı dawe, # hama
heard-1SG that NEG-make.3SG sing.INF in wedding but
m-ore ande.
neg-1SG.know who
'I have heard that he won't make anyone sing in the wedding, # but I don't know who.'

So far, the evidence points towards a view that the embedded agent is not projected despite the active VoiceP, thus SA MCs resemble the active existentials in Lithuanian. Šereikaitė (2020) demonstrates that in active existentials, illustrated in (83), the voice is active, the theme remains a grammatical object, and yet the embedded agent is not projected (see Šereikaitė 2018 for the diagnostics).

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(83) *Active Existential,* (Lithuanian)
Valių kvieč-ia į dekanatą.
Valius.ACC invite-PRS.3 to dean's.office.ACC
'Someone is inviting Valius to the dean's office.'
(Kibort & Maskaliūnienė 2016:251, cited in Šereikaitė 2018)

Šereikaitė (2020) argues that the presence of a thematic Voice head is sufficient to count as active and license accusative case of the grammatical object in certain root clauses in Lithuanian. The embedded agent is not projected, but existentially closed at the Voice level, thus the label *active existential.*

The next section, however, shows that unlike the situation in Lithuanian active existentials, in SA MCs, pronouns can be licensed by the null embedded agent. Therefore, the analysis for active existentials cannot carry over to SA. Instead the next section posits that the agent is realized as a free variable, rather than being subject to existential closure.

6.2. *Proposal: Embedded agent as a free variable*

Similar to reflexives, reciprocals and depictives, pronouns cannot be anchored to the implicit agent of passives. In other words, canonical passives do not allow the pronoun to be bound by the implicit agent, thus force a disjoint-reference interpretation, as in (84).

(84) aɣa ın-ada tırab-en.
village.lord PASS-gave land-their
'The village lord was given their lands' (not by the owners of the land)

Implicit arguments of passives cannot antecede pronouns occurring subsequently in the clause or in a subsequent clause (see e.g. Koenig & Mauner 2000).[25] Thus, the implicit agents of passives, marked as *e* in (85) (e.g. *by a builder* in (85a) or *by a mother* in (85b)) are not licit antecedents.

(85) (a) kul mara beyt le ande ın-adal e_j ad-ı-llu$_{*j}$ dırem.
every woman house of who PASS-built gave-3F-him money
'Every woman whose house was built e_j gave him$_{*j}$ money.'
(b) #ta ıbın-ma in-cib fı dınye e_j fı şart-ad
if baby.boy-a PASS-brought in world in condition-PL
kotti-yin, doxtor-ad yardım is-o-ll-a$_j$ ta le baş tı-sir$_j$.
bad-PL doctor-PL help do-3PL-her so that good 3F-become
'If a baby boy is delivered in unsafe conditions e_j , the doctors help her$_j$ heal quickly'

[25] Unless this is achieved via the accommodation process through the use of the indefinite *they* (e.g. Lewis 1979, Koenig & Mauner 2000).

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Pronouns corresponding to the embedded agent, however, are possible in the MC, as illustrated in (86).

(86) (a) ammo$_i$ sa sen$_k$ mazgun-u$_{i/k}$.
uncle made sharpen.INF sickle-his
'Uncle$_i$ made (someone$_k$) sharpen his$_{i/k}$ sickle.'

(b) gızbe-ye le kemal$_i$ ma-sa xassil$_k$ qamis-a$_{*i/k}$ fı saqe.
lie-3.COP that Kemal NEG-made wash.INF skirt-her in river
'It is a lie that Kemal$_i$ didn't let anyone$_k$ wash her$_{*i/k}$ skirt in the river.'

(c) aɣa$_i$ sa bayu$_k$ tırab-u$_{i/k}$/-(?)a$_{*i/k}$.
village.lord made sell.INF land-his/-her
'The village lord$_i$ made (someone$_k$) sell his$_{i/k}$/her$_{*i/k}$ land.'

The patterns are summarized in Table 1: in the active anaphors, depictives and pronouns are licensed, whereas in the passive none is. On the other hand, the 'make' causative exhibits a mixed behavior: while the anaphors and depictives are not licensed, pronouns are.

	anaphors & depictives	**pronouns**
active	✓	✓
***make* active complement**	*	✓
passive	*	*

Table 1
Binding properties in Voice types

Examples in (86) suggest that a potential analysis along the lines of Šereikaitė (2018), in which the embedded agent is existentially closed, like in the passive, cannot carry over to SA since that analysis would rule out the licensing of pronouns as well. Accordingly, I posit (following Heim 1982) that the embedded agent is present as a free variable, generated in the Voice head itself,[26] and bound by Voice-level or text-level Existential Closure. This approach treats indefinites as non-quantificational, and as such the indefinite is like a free variable x_i with no quantificational force of its own. The indefinite gets bound in one of two ways: (i) either by being under the scope of an (unselective) quantifier in the sentence,

[26] Thanks to an anonymous reviewer for bringing to my attention that the suggested mechanism has precedents in the literature, e.g. Wood (2015: ch. 4), who allows the introduction of a thematic role, i.e. an open semantic position, for figure reflexives with p{} in Icelandic, without having a specifier position. The proposal here shares that view, with the added 'free variable' interpretation of this semantic role in order to capture and its parallelism with indefinite DPs and the definiteness restriction.

Wood (2015: ch. 4) speculates that the figure role can be introduced without a specifier since it is within the extended projection of the verb with a slight 'look ahead' issue (thanks to the reviewer for bringing this point to my attention). Note that this explanation would extend to SA MCs to a certain extent, since we can indeed treat Voice as being in the extended projection of the verb, but this would not suffice to explain its restriction to the MC. Similar to the issue raised by Wood's work, we would have a look ahead issue as well.

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e.g. *if*-clauses, adverbs, negation, or (ii) in their absence by an operation of existential closure, which puts an implicit unselective ∃ on texts. This view, i.e. the dynamic analysis of indefinites, has been suggested to account for instances of e.g. (87) as well as 'cross-sentential anaphora' and 'donkey sentences', illustrated in (88) and (89), respectively.

(87) boş karrad, ta sınnor-ma i-vır mı fıstox, ırce sayˠ i-bqa.
most times if cat-a 3M-fall from roof still alive 3M-remain
'Usually, if a cat falls from the roof, it still survives.'
Paraphrase: 'Most cats survive if they fall from the roof.' (adapted from Heim 1982: 123)

(88) mara-ma daxal-e cua. lora *pro* qad-e fo kursi-ma.
woman-a entered-3F inside then sat-3F on chair-a
'A woman entered. She sat on a chair.'

(89) kul çifçi ande le y-axez hamar-ma$_i$ i-habb-u$_i$.
every farmer who that 3M-buy donkey-a 3M-love-M.CL
'Every farmer who buys [a donkey]$_i$ loves it$_i$.'

Examples (90) - (92) demonstrate that the same considerations apply to the MC. We see that the free variable in the 'make' causative can antecede a following pronoun. This constitutes a contrast with the implicit passive agent in (85). I take this contrast as corroborating evidence that the implicit arguments in the causative construction differ from the implicit agents of passives. Whereas the latter requires an accommodation process in order to serve as an antecedent, the former does not.

(90) boş karrad, ta aɣa i-si hazd haşiş, i-hazed.
most times if village.lord 3M-makes cut.INF grass 3M-cut
'Usually, if the village lord makes (someone) cut the grass, he cuts it.'
Paraphrase: 'Most people cut the grass if the village lord makes them (do so).'

(91) ta le aɣa i-si addil beyt-ma, lazim-ye le
if that village.lord 3M-make build house-a necessary-COP.3SG that
i-xals-u-n xıfef.
3-finish-PL-M.CL quickly
'If the village lord makes (some people) build a house, it is necessary that they finish it quickly.'

(92) aɣa sa addil beyt. Boş bacarikli kan, şa gıze
village.lord made.3M build.INF house much talented was.3M therefore
beyt koys ye sa.
house beautiful cop.3M now
'The village lord made build the house. He was very talented, thus the house is beautiful now.'

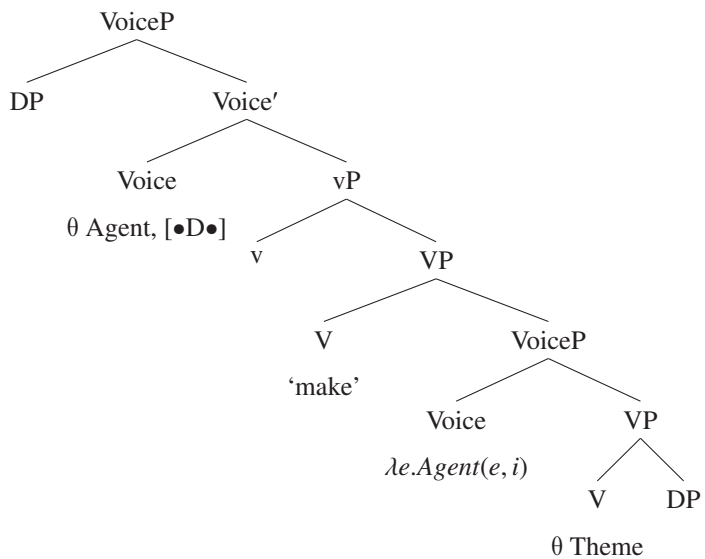
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The embedded agent in the MC patterns like an overt indefinite, thus semantically equivalent to it. They both can be under the scope of an unselective quantifier, and behave identically for discourse anaphora and 'donkey sentences'. The two, however, differ in terms of anaphor licensing: whereas an overt indefinite can bind an anaphor (or license a secondary predicate; cf. (79a) versus (80a)), the embedded agent of the MC may not. Consider (93).

(93) (a) recel-ma$_i$ qadal rou$_i$.
man-a killed himself
'A/some man killed himself.'
(b) aɣa$_i$ sa$_k$ qadıl rou$_{i/*k}$.
village.lord made kill himself
'The village lord made somebody kill himself.'

Accordingly, I propose that the implicit embedded agent is present not as a DP, but as a free variable, x_i, on the Voice head, as in (94), and can be bound by Voice level or discourse-level Existential Closure (Heim 1982).[27] Existential Closure at the Voice-level explains cases in which the free variable takes scope under negation. The external θ-role is introduced by a functional head Voice; the active matrix Voice selects for a DP specifier; we encode this selection using the feature [• D•] (see Müller 2010 deriving). The semantic derivation for a tree that includes an embedded active Voice head is provided in (95).

(94)

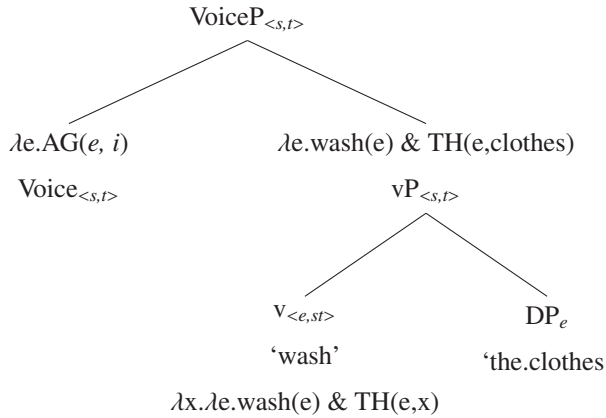


[27] Note that the denotation is not strictly identical to that of Heim (1982) who takes an indefinite to be a proposition with a variable free in it. Also, Heim uses the subscript notation e.g. $\exists_1$. See Heim (1982: 166-167) for its interpretation.

An anonymous reviewer asks why ∃ is not available to internal arguments. This is in fact not the case. If the Heim's (1982) system of indefinites is correct, object indefinites can also be bound by

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(95) λe.wash(e) & AG(*e, i*) & TH(clothes, e)



The core idea then is that pronouns (more precisely the variable they introduce) can be licensed by virtue of being co-indexed with another variable (in this case, the agent variable on Voice head) and being bound by the same operator.[28] This can be roughly sketched as (96), based on Heim (1982).[29]

unselective ∃. However, the analysis of indefinites is beyond the scope of this paper. Moreover, whether the free variable that appears on the embedded Voice head is attested in other argument positions needs to be further studied both in SA and other languages. I leave this to future research. It should also be noted that what regulates the distribution of ϕP still needs to be justified, i.e. whether it is restricted to external argument position or can apply to object position as well.

[28] The facts in this section demonstrate that the implicit arguments do not form a uniform class, thus reinforces the view in Bhatt & Pancheva (2006, 2017), Landau (2010). A point of departure from Landau's (2010:359, 378) model is that Landau treats the implicit agents of passives as Weak implicit arguments (WIA), which lack a [D] feature, thus should presumably have referential "flexibility". As such, his model would equate the implicit agents of the MC and those of passives, both under the category of WIA.

However, it turns out that the properties Landau attributes to implicit agents of passives are exhibited by the implicit agents of the MC in SA, and not by the implicit agents of passives. Therefore, SA allows us to pinpoint two kinds of implicit arguments, yet indicating that the free variable property is associated with the MC, and not passives.

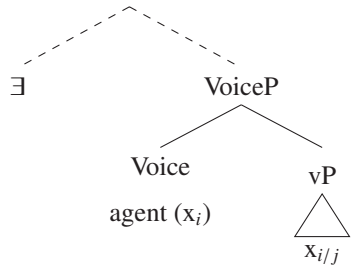
Moreover, as noted above, semantically overt indefinite and the free variable of the MC are equivalent. They can introduce new discourse markers to which, for instance, a pronoun in the following sentence can refer. They also satisfy one of a main predicate's arguments, it specifically being the embedded agent for the MC. Thus, there is not a difference of referential flexibility between the two as Landau draws between Strong implicit arguments and Weak implicit arguments. Accordingly, given the lack of evidence for the bare free variable being projected into a syntactic position, I place it on Voice head.

[29] As an anonymous reviewer notes, we are left with the question of what other heads are able to have such free variable realization in languages? This is an interesting question that would make typological predictions. As far as I can tell, this would depend on various, sometimes language-internal, factors. For instance, in SA the status of the embedded agent is dependent on the Voice being selected by the matrix verb 'make' (see fn. 21). As such we can expect a similar phenomenon in languages with a verb that has similar selection requirements, an option noted by the reviewer as well. Moreover, we can also expect Applicative head, i.e. a Causee theta role, to be possible as long as it is permitted in that language. For instance, SA does not allow Appl, but it is possible to find a language that does.

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Note that the pronoun variable that is not co-indexed gets reference from context.

(96)



In the case of anaphors, although they are also semantically variables, they are subject to a further restriction. They are not licensed by ∃ (same restriction applies to depictives as well), and require a fully projected licenser.

On the other hand, I analyse the passive as a subtype of the Voice head itself (following Chomsky 2000, Legate 2014), although not much hinges on this choice, thus a PassiveP along the lines of Bruening 2013 might work (although as an anonymous reviewer rightly points out, a Pass head should not be possible if Pass requires an Aspect head directly above it). Since Voice only introduces the external θ-role (Kratzer 1996), only the external θ-role can be affected by the passive. Syntactically, the Voice$_{\text{PASS}}$ head introduces the external θ-role, but does not syntactically project this argument into its specifier. It is therefore compatible with a 'by'-phrase adjunct, which optionally adjoins to VoiceP to specify the thematic subject.

Semantically, the passive needs to allow the external θ-role to be satisfied by the 'by'-phrase, when present, and to otherwise be interpreted existentially (e.g. Bach 1980, Keenan 1985, Williams 1987, Parsons 1990, Bruening 2013, Alexiadou et al. 2015, Reed 2018). I therefore take it that Voice$_{\text{PASS}}$ has two associated semantic denotations (see also Bruening 2013, Alexiadou et al. 2015, Legate 2014, Legate & Akkuş 2017, Legate et al. 2020). In the first one, which does not combine with a 'by'-phrase, the initiator is existentially bound on the Voice$_{\text{PASS}}$ head. Note that ∃ is necessarily internal to Voice^0, thus cannot bind elements outside Voice, as shown in (97).

(97) $\lambda e.\exists x.\text{AGENT}(x,e)$

In the second semantic denotation, Voice$_{\text{PASS}}$ leaves the initiator position open, i.e. $\lambda e.\lambda x.\text{AGENT}(x,e)$, to be accessed by the 'by'-phrase. On the other hand, in the passive complements of 'make' in SA, only the second denotation is available, as such the initiator is saturated by the 'by'-phrase.

6.3. *An alternative analysis: ϕP*

In this section, I look at an alternative analysis of the implicit agent, in which it is realized as a ϕP (Legate 2014) in Spec,VoiceP. A reviewer suggests that this analysis could be tested in relation to the control facts if they are available in the

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MC as well as serving an explanation for the (abstract) accusative case on the embedded theme. It could also explain why the embedded theme does not raise to become the grammatical subject in examples such as (48c), repeated here as (98), in which presumably the embedded theme argument illicitly raises over the higher embedded implicit agent.

(98) *potad ın-so xassil.
clothes PASS-made.3PL wash.INF
Intended: 'Clothes were made to be washed.'

On the basis of recent work, I first contend that neither implicit control nor accusative case on the embedded theme require the syntactic projection of an implicit argument. Afterwards I suggest that Case licensing straightforwardly explains (98). This is followed by implementation of two arguments Sigurðsson & Wood (2020) use to argue for the presence of ϕP in Icelandic indirect causatives, and demonstrate that they do not carry over to the MC in SA.

Let us start with the control test. It is indeed possible to embed both attitude and non-attitude control verbs under 'make', as shown in (99). As a background, similar to Hebrew, control is into a finite complement in SA. The obligatory *de se* reading and absence of the complementizer are two of the hallmarks of control.[30]

(99) (a) mafya sa qabul$_i$ [PRO$_i$ i-xtel hasm-u].
mafia made accept.INF 3M-murder enemy-his
'The mafia leader made someone agree to murder his enemy'
(b) mafya sa hawwal$_i$ [PRO$_i$ i-xtel hasm-u].
mafia made try.INF 3M-murder enemy-his
'The mafia leader made someone try to murder his enemy'

The question is whether being a controller necessarily entails syntactic projection. Some researchers have responded positively to this question. For instance, Landau (2010) in his classification of implicit arguments suggests that both SIAs and WIAs, which also include the passive agent, are visible as controller, therefore they should be syntactically projected. However, this conclusion has been challenged (e.g. Bhatt & Pancheva 2006, 2017) and argued against (Pitteroff & Schäfer 2019). For instance, similar to the tests discussed earlier (e.g. licensing of *by*-phrases, agent-oriented modifiers), Bhatt & Pancheva (2006, 2017) argue that the 'control into purpose clauses' test also does not necessitate the syntactic projection of an implicit external argument, including that of passives. Note also that, Landau's (2010) main argument for the syntactic projection of implicit arguments (compared to leaving them syntactically unrepresented) is based on the observation that implicit arguments can function as the controller in partial-control contexts and

[30] With the caveat that attitude verbs e.g. *promise, plan, accept* in SA allow overt subjects in their complements, unlike non-attitude predicates. I leave this for future work. See also Li 2020 for a similar contrast in Mandarin.

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the assumption that this type of control can only be treated in the syntax. However, as discussed in Pitteroff & Schäfer (2019), this argument contains two potential confounds: first, Landau develops his argument on the basis of implicit experiencers of adjectives. But since, for principled reasons, this argument cannot be applied to implicit agents of passives, the question of whether implicit agents of passives also license partial control remains open. Secondly, Pearson (2013, 2016) has recently shown that a purely semantic analysis of partial control is, in fact, possible. As such, the possibility of control does not alone entail the syntactic projection of the controller.[31]

The presence of the (abstract) accusative case on the embedded theme has also been argued to be another argument for a potential ϕP. In fact, this is one of the reasons Legate (2014) postulates ϕP, as such ϕP makes it possible for the assignment of accusative case, by a thematic Voice. However, as mentioned above, Šereikaitė (2018, 2020) demonstrates that a thematic Voice head is sufficient for the assignment of accusative case and thus the assignment of accusative case by Voice may vary independently from the selection of a specifier, be it a DP or ϕP. Moreover, the necessity of a specifier position for case assignment of another DP (cf. Burzio's (1986) Generalization or its alternative versions, e.g. Legate (2014) or Dependent Case Theory Marantz (1991), McFadden (2004), Preminger (2014)) is a theory-internal postulation and a technical device to save Burzio's (1986) Generalization. As such, alternative models of case assignment have been argued for. For instance, Clem (2019), Akkuş (2020b) propose that ergative case is the result of agreement with multiple heads. Given these considerations, arguments for the existence of ϕP in any language are not conclusive.

Instead, the ungrammaticality of (98) straightforwardly follows from Case licensing. As shown earlier, the embedded theme functions as a grammatical object, and it is already Case-licensed in the embedded active structure, as such it does not need to move.

I further implement two arguments Sigurðsson & Wood (2020) use for Icelandic indirect causatives towards the projection of the causee as a ϕP. They argue that the impossibility of VoiceP modifiers like *af kappi* 'enthusiastically', (100a), *viljandi* 'intentionally' (as well as the lack of control into purpose clauses) as an argument for the reduced agency of the external argument, which is realized as a ϕP rather than a DP. Applying this test to the MC in SA, we see that the implicit agent in SA differs from Icelandic and is compatible with such adverbs, as shown in (100b) (see also subsection 3.2).

[31] Sigurðsson & Wood (2020) interpret the impossibility of Icelandic indirect causatives with purpose clauses as an argument for the reduced agency of the external argument, which they argue is realized as a ϕP rather than a DP. As Sigurðsson & Wood (2020) themselves note, however, in light of Landau (2010), ϕP may not directly explain the impossibility of of control by the implicit argument into purpose clauses. They state that the absence of functional projections between 'let' and the embedded structure, which would otherwise mediate this control relation, is also needed.

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(100) (a) Icelandic

Þær	létu	byggja	húsið	(*af kappi).
they	let.PST	build.INF	house.the.ACC	(*enthusiastically)

'They made (someone) build the house (*enthusiastically).'
(Sigurðsson & Wood 2020: 68a)

(b) Sason Arabic

aɣa	sa	hazd	haşiş	wara	zavk.
village.lord	made	cut.INF	grass	with	enthusiasm

'The village lord made [(someone) cut the grass enthusiastically].'

Another argument Sigurðsson & Wood (2020) use for the reduced agency of the implicit causee in Icelandic causatives concerns the possibility of 'choice' on the part of the causee with respect to the performing an embedded event. They look at coordination of two vPs with a disjunction, and note that in causatives with an overt DP causee, as in (101a), the causee has the choice to choose between which one of the tasks to do, whereas with the implicit causee, this is not possible, (101b).

(101) Icelandic

(a) Guðrún Lét mig eyðileggja bélinn eða byggja
Guðrún Let me.ACC destroy.ACC car.the.ACC or build.INF
húsið.
house.the.ACC
'Guðrún made me destroy the car or build the house.'
Causee had a choice

(b) Guðrún lét eyðileggja bélinn eða byggja húsið.
Guðrún let destroy.ACC car.the.ACC or build.INF house.the.ACC
'Guðrún made (someone) destroy the car or build the house.'
* Causee had a choice (Sigurðsson & Wood 2020:71)

Applying this diagnostic to the MC in SA, we see that the implicit agent behaves unlike Icelandic, in that s/he has a choice which task to perform. Consider (102), in which the causee has a choice as to which task to do, as such the sentence can have a continuation of something like "... and from what I heard he decided to cut the grass".

(102)

aɣa	sa	hazd	haşiş	ya	addil	beyt.
village.lord	made	cut.INF	grass	or	build.INF	house

'The village lord made (someone) cut the grass or build the house.'
Causee had a choice

These comparisons with the Icelandic causatives indicate that the implicit causee in SA cannot be a ϕP.[32]

[32] Note that it can also not be a null pseudo-incorporated agent with an NP structure. This is because pseudo-incorporated elements are also identical to other existentially closed elements such as implicit agents of passives or indefinite implicit objects in English, in that they cannot pick out a previously established entity in the discourse or antecede a pronoun. Thanks to Kyle Johnson (p.c.) for raising this possibility.

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Moreover, if the embedded agent is projected as a ϕP and raises to grammatical subject position (i.e. Spec,TP) in impersonal passives (cf. 50-51), as suggested by an anonymous reviewer, it is at least expected that it should be able to trigger matrix agreement (Legate 2014, p.c.). However, it always surfaces with default agreement in SA. Consider (103) in which the embedded subject is necessarily female, but feminine agreement on matrix 'make' is still ruled out in impersonal passives.

(103) ın-sa / *ın-sa-tte cab ıbın-ma fı dınye fı
PASS-made.3M / * PASS-made-3F bring.INF baby.boy-a in world in
şart-ad kotti-yin.
condition-PL bad-PL
'It was made deliver a baby boy in unsafe conditions.'

Note also that raising of ϕP presupposes the availability of Spec,TP in impersonal passives, which is not an innocuous assumption. Pitteroff & Schäfer (2019) argue that in languages with impersonal passives, (i) Spec,TP is either filled by an overt expletive or (ii) Spec,TP is not projected. Sason Arabic, being a language that shows impersonal passives of unergatives, should then follow one of these two options. Given the absence of an expletive in the language, I assume that Spec,TP is not projected in impersonal passives.

7. Conclusions

This paper has investigated a type of indirect causative construction embedded under 'make' in SA. The examination has revealed that 'make' embeds an agentive VoiceP, which also shows an active-passive alternation with no morphological reflex. Thus, this causative construction differs from similar constructions in other languages, which have been proposed to embed either a bare VP or only a passive VoiceP.

The study has also demonstrated that the implicit embedded agent is not projected in the specifier position, but is present as a free variable on the Voice head. This suggests that Case licensing of the internal argument is dissociated from the presence of a specifier position. Overall, the study also adds to the typologies of Voice and of causatives.

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