On the Passivization of the Gesture Expression Construction
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1. Introduction
This paper is concerned with the following construction:

(1) a. She smiled her thanks.
   b. She nodded approval.

(OALD^7)

In (1), the postverbal NPs her thanks and approval co-occur with the verbs smile and nod, which are usually used as intransitives. These NPs describe the expressions conveyed by the gestures of smiling and nodding. Levin and Rapoport (1988) refer to this type of construction as the gesture expression construction (hereafter, GEC). For expository convenience, I will call the object NP such as her thanks the expression nominal (see also Levin (1993) and Omuro (1997, 2000)).

In terms of passivization, the GEC displays contradictory behavior. As in (2), there are instances that cannot undergo passivization, as has been largely acknowledged by many researchers. Despite the general consensus about the passivizability, however, a few but authentic passivized GECs are attested, as illustrated in (3):

(2) a. * A cheerful welcome was beamed by Sandra. (Levin (1993:98))
   b. * Grateful thanks were smiled by Rilla. (Massam (1990:180))

(3) a. Warm thanks were smiled at the audience. (Felser and Wanner (2001:108))
   b. On the day of departure, Glyndwr’s men assembled, a few mounted, and wagons were ready to roll. Final goodbyes were waved.
   (J. E. Anthony, The Castle of the Ghost)

A question naturally arises here: Why are the two contrastive patterns of the GEC observed with respect to passivization?

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The purpose of this article is to account for the contradictory behavior displayed by the GEC in regard to passivization. To this end, the discussion will explore the syntactic and semantic status of the construction, and identify what factors contribute to the acceptability of the passive sentences. As a conclusion, I will argue that the syntactic behavior of the GEC is explained by the interaction between the constructional semantics and the discourse function.

The next section examines the previous analyses on the GEC that have been presented in the literature and points out the empirical problems. Section 3 reveals that the crucial factor determining whether the GEC can be passivized rests on the particular semantic status of the construction. In section 4, the contextual factor which improves the grammaticality of passive sentences is explored. Finally, section 5 gives a brief conclusion of the discussion.

2. Adjunct or Argument?

This section investigates how passivizability of the GEC has been treated in the literature, reviewing the supporting data for the previous analyses. In addition, some empirical problems to be solved are pointed out.

Many researchers have shared an understanding that the GEC cannot undergo passivization (Massam (1990), Levin (1993), Omuro (1995, 1997, 2000), Huddleston and Pullum (2002), and Toda (2006)):

\[(4) \quad \text{a.} \quad \text{Her assent was smiled.} \quad \text{\textsuperscript{Huddleston and Pullum (2002:305)}} \]
\[(4) \quad \text{b.} \quad \text{Satisfaction was smiled by John.} \quad \text{\textsuperscript{Omuro (1997:819)}} \]

In (4a, b), the expression nominals *her assent* and *satisfaction* cannot be expressed as passive subjects. However, the reasons for the unpassivizability, as exemplified in (4), vary in the literature.

Levin (1993) and Huddleston and Pullum (2002) argue that the incompatibility with passivization is attributed to the low degree of transitivity of the construction. Verbs compatible with the GEC like *smile* and *nod* are normally used as intransitives, as in (5):

\[(5) \quad \text{a.} \quad \text{When he saw me, he smiled and waved.} \]
\[(5) \quad \text{b.} \quad \text{“Oh, yes,” she nodded. \ “I understand you very well.”} \quad \text{\textsuperscript{COBUILD\textsuperscript{\textdegree}})\textsuperscript{}} \]

Although there are indeed some transitive verbs occurring in the construction, such as *kiss, hug*, etc., the majority of the verbs in the construction are normally
considered as intransitives: verbs of gestures and signs (e.g. beam, laugh, smile, nod, wave) and manner of speaking verbs (e.g. bark, growl, mumble) (Levin (1993)). Then, most of the expression nominals should not be the direct objects subcategorized by the verbs (I will consider more about this issue in 3.1).

Assuming that the verbs which occur in the GEC are intransitives and that the expression nominals are not selected by the verbs, expression nominals might be regarded as adjuncts, i.e. syntactically optional elements. Indeed, the nominals in (6) are understood as functionally equivalent to a manner adverbial and a prepositional adjunct, respectively (Omuro (1995:120)):

(6) a. She smiled her thanks.
   b. John nodded agreement.
(7) a. She smiled thankfully.
   b. John nodded in agreement.

Moreover, analyzing expression nominals as adjuncts captures the incompatibility of pronominalization by a definite pronoun such as them or it:

(8) a. * Pauline smiled thanks and Mary smiled them, too.
   b. * George nodded agreement, so I nodded it, too.

Based on the data above, the inability to passivize the GEC can be reduced to the adjunct status of expression nominals.

However, the adjunct analysis faces three serious problems. First, as already mentioned, there are a number of passivized GECs, which contradict the data presented by the previous researchers. Observe the italics in the following examples (italics mine):

(9) a. Warm thanks were smiled at the audience.
   b. On the day of departure, Glyndwr’s men assembled, a few mounted, and wagons were ready to roll. Final goodbyes were waved.  (= (3))

I admit that, compared to the relevant active sentences, only a small number of the passives like (9) are attested. As the authentic examples in (9a, b) clearly suggest, however, passivization of the GEC is not totally unacceptable.

Second, not all of expression nominals semantically correspond to manner adverbials or prepositional adjuncts. Consider the following examples:
To my knowledge, there exist no adequate manner adverbials which serve as the paraphrase of the objects *goodbye* and *a yes*. Therefore, the assumption that expression nominals are equivalent to manner adverbials is at least dubious.

Third, while there is a restriction on the definite pronominalization of expression nominals, as in (8), the pronominalization by an indefinite pronoun *one* is much more acceptable, as in (11):

    b. Taro waved goodbye. Hanako waved {? one / ?* it}, too.

The acceptability of indefinite pronominalization demonstrates that the expression nominals are referential NPs. As pointed out in Kogusuri (2009), this fact follows from their status as effected objects (Fillmore (1968)). Effected objects denote entities which come into existence by virtue of the action encoded in the verbs. As with expression nominals, effected objects only allow indefinite pronominalization, as exemplified by the following examples:

(12) a. John built a house in Tokyo and Sam built {one / * it} in California.
    b. Mary wrote two letters for her mother and Jane wrote {one / * it} for her boyfriend.

The parallelism between (11) and (12) provides further evidence against the adjunct status of expression nominals. Given all the data above, the adjunct analysis of expression nominals is empirically inadequate.

In contrast to Levin (1993) and Huddleston and Pullum (2002), Massam (1990) analyzes expression nominals as syntactic direct objects. She points out that direct objects which involve a necessarily bound variable, including expression nominals, do not passivize. Furthermore, whether the bound variable is overt or unrealized, the lack of passivization holds true:

(13) a. * Her thanks were smiled by Rilla.
    b. * Grateful thanks were smiled by Rilla.

According to her analysis, the unacceptability in (13a) is due to the bound variable
encoded as *her*; likewise, (13b) contains an implicit bound variable, resulting in the unacceptable passivization.

This line of analysis with a bound variable captures the intricate characteristics of expression nominals: By virtue of the (explicit or implicit) existence of the necessarily bound variable, in spite of the status of direct object, they cannot undergo passivization. Yet, Massam’s (1990) claim still leaves many points unexplained. Firstly, the reason why expression nominals contain a necessarily bound variable is left unexplained. Especially, according to her analysis, the ungrammaticality in (13b) follows from the implicit bound variable in the subject *grateful thanks*; however, she gives no account of the occurrence of the implicit element. Secondly, her analysis fails to account for the passivized cases such as (9). Finally, Massam makes no mention of the intransitive use of the verbs which participate in the GEC: If many of the verbs appearing in the GEC are syntactically intransitive, what licenses the expression nominal in the construction?

In the following discussion, I will argue, along the line of Massam (1990), that the referential relation between the subject NP and the bound variable is the crucial factor to determine whether it is passivized or not. Moreover, drawing the occurrence of the bound variable from the semantic property of the GEC, the analysis proposed in this article not only solves the questions raised above, but gives a coherent account for the passivization of the construction. The next section examines the syntactic and semantic status of the GEC in detail.

3. The Syntactic and Semantic Status of the GEC and Passivizability

As far as the attested data are concerned, the number of GECs in passive voice is much lower than that in active voice. Also, my informants report that passivization of the GEC, in general, feels almost unacceptable unless certain contextual information is given. From this observation, it will be plausible to suppose that in unmarked cases, the GEC is incompatible with passivization. The natural question to be asked, then, is what is responsible for the unpassivizability. This is the issue which I address in this section.

In what follows, in order to give an account for the unpassivizability, I make two suggestions in turn: (i) the expression nominal along with the matrix verb constitutes a constructional idiom, and is licensed by the construction itself, rather than by the matrix verb; (ii) the expression nominal designates, as a construction-specific semantic status, an entity inalienable to the subject referent, which leads to the obligatory coreference condition between the subject NP and the possessive pronoun modifying the expression nominal (i.e. the occurrence of a necessarily bound variable). As a result, the unpassivizability falls out from the
conflict between this obligatory coreference condition and the referential relation established through passivization.

3.1. *The GEC as a Constructional Idiom*

Regarding the syntactic status of the GEC, there exists evidence for the argument that the expression nominal occupies the syntactic object position. First, as illustrated in (11), expression nominals can undergo indefinite pronominalization, as with the object NP like *a house* in *build a house* in (12a). Second, *do so* replacement cannot leave behind expression nominals:

(14) a. She smiled warm thanks and Mary did so, too.
    b. * She smiled warm thanks and Mary did so vague thanks.

It has long been observed that VP anaphora constructions such as *do so* replace the verb and its complement, leaving behind adjuncts, say, manner adverbs:

(15) Mary pounded the cabbage vigorously, but Bill did so gently.

(Culicover and Jackendoff (2005:129))

The ungrammaticality of (14b), contrasted with the case of manner adverbs in (15), explicitly shows that the *vague thanks* has a distinct syntactic status from adjuncts. Third, no element can be inserted between the verb and the expression nominal. Compare (16a) with (16b):

(16) a. * She nodded gracefully her approval. (Felser and Wanner (2001:108))
    b. * Paul opened quickly the door. (Stowell (1981:113))

Sentence (16a) indicates that the expression nominal must be adjacent to the verb. This behavior is exactly the same with the typical transitive object in (16b). All these observations provide empirical evidence for the argument that the expression nominal in the GEC is in the direct object position, as represented in (17):

(17) She \[ vp smiled \[ np her thanks \]].

This direct object analysis poses an interesting question whether or not the expression nominal is selected by the matrix verb, which is normally considered as an intransitive verb. I argue that it is not; rather, the expression nominal is
“(semi-)idiomatically” licensed by the construction itself (see also Toda (2006)).

One reason is that the meaning of the GEC is not completely compositional in that the sum of the lexical meanings does not amount to the whole meaning of the construction. The semantics has been captured in the literature with the semantic predicate “express.” For example, (17) can be paraphrased as (18), where the verb meaning is treated as a means or manner modifier (Jespersen (1924), among many others):

(18) She expressed her thanks by smiling.

It should be noted here that the “express” meaning emerges only in the GEC; otherwise, there is no such a meaning implied.

(19) a. Mary smiled a beautiful smile.
   ≠ Mary expressed her beautiful smile by smiling.
   b. John nodded his head.
   ≠ John expressed his head by nodding.

Unlike the GEC, the sentences with the so-called cognate object in (19a) and the body part object in (19b) are not equivalent in meaning to the paraphrases with the verb “express.” Furthermore, in spite of the occurrence of the same verb in (17) and (19a), the sentences differ sharply in meaning. The difference between (18) and (19) supports the view that the “express” meaning is contributed not by the matrix verb, but by the construction itself. In this sense, the GEC has a (semi-)idiomatic meaning specific to the construction itself.

This line of idea accords with Jackendoff (1990, 1997) and Goldberg (1995)’s analyses of “constructional idiom” or “construction,” which propose that “argument structure can be determined in part by constructional idioms — syntactic configurations whose structure contributes semantic content above and beyond that contained in the constituent lexical items” (Jackendoff (1997:553)). Constructional idioms have been discussed as a central issue in recent lexical semantic and constructional researches. Among them are the way construction and the resultative construction, as exemplified in (20):

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1 Although his discussion focuses on GECs in the double object construction, Toda (2006:179) also argues that the expression nominal good-bye in I hugged him good-bye is the argument taken by the construction as a sort of idiom, not by the verb hug. His analysis is quite parallel to the analysis I present here, which is mainly for simple transitive GECs.
(20) a. James joked his way into the meeting.
   b. Cathy cooked the pot dry.

These constructions can be paraphrased as (21a, b):

(21) a. James got into the meeting by joking.
   b. Cathy caused the pot to become dry by cooking.

(Jackendoff (1997:544-546))

Notice here that, as with the case of the GEC, the paraphrases in (21) represent the
verb meanings using by: The actions denoted by the verbs are subordinated as
manner or means phrases in the whole semantic structure (cf. Levin and Rapoport
(1988)).

In view of the fact that the GEC can be paraphrased in almost the same
fashion with other constructional idioms, it makes sense to argue that the GEC
emerges as yet another example of a more general abstract construction which
subsumes the way and resultative constructions: the construction where the verb
meaning is semantically subordinated. Hence, I can informally schematize the
GEC as (22), with the syntactic structure (22a) and the approximate meaning (22b):

(22) Gesture Expression Construction
   a. \[s \ NP_i \ [VP \ V ([\text{bound pronoun}]'s) \ NP_j]]\]
   b. 'Xi express (Xi's) [emotion / attitude] by V-ing'

The subscripts express the correspondences between the syntactic arguments and the
corresponding semantic arguments.

The GEC is thus characterized as an instance of constructional idiom, a
construction with a (partially) non-compositional meaning. Under this analysis,
the expression nominal is licensed by the construction rather than the verb; and the
particular syntactic form, as in (22a), is uniquely linked to the constructional
meaning in (22b), as with idioms such as kick the bucket 'to die.'

Another important reason for regarding expression nominals as licensed by
the construction itself is that the GEC can change the valence of the verbs. Observe the following sentences:

(23) a. Endill hugged goodbye to the Bookman ...
   b. Rachel and David went through the now expected ritual of waving them
goodbye.

   (BNC AMB)  (BNC JXY)
In (23a), the verb *hug* co-occurs with the expression nominal *goodbye*, although it should obligatorily take the direct object denoting a hugged person, as in *Endill hugged *(the Bookman)* and *Endill hugged *(to) the Bookman.* In this case, the participant selected by the verb is realized as the prepositional object. Namely, the object of the verb is syntactically demoted to the oblique phrase.

In (23b), on the other hand, the verb *wave* occurs in the double object construction. Here, the indirect object referent is understood as the recipient of the message *goodbye* conveyed by the agent. However, the occurrence of this recipient is unpredictable from the subcategorization frame of the verb: The verb *wave*, in the sense of waving one’s hand in order to say hello or goodbye to someone, requires a preposition *at* or *to* for marking the participant:

(24) a. He waved at the waiter, who rushed to the table...
   b. Archie waved to us.
   c. *She waved granddad.

Moreover, the *wave* with any type of object NPs but expression nominals cannot occur in the double object construction (e.g. *She waved John her hand*). Thus, the recipient argument *them* in (23b) should be considered as an argument licensed by the GEC, not by the matrix verb.

The complement structure unusual for the matrix verb, as illustrated in (23), is an indication of the status as a constructional idiom. For instance, the following resultative constructions have object NPs unselected by the verbs:

(25) a. Cathy cooked the pot dry.
   b. I coughed myself awake.

Neither of the verbs in (25) licenses the objects unless the resultative AP such as *dry* and *awake* is also present: *cook the pot, cough myself* (Jackendoff (1997:544)). This suggests that the surface structures given in (25) are allowed not by the verb, but by the resultative construction itself, where the syntactic frame [V NP AP] corresponds to the specific meaning “cause NP to become AP by V-ing.” Likewise, the GEC can take the complement structure unusual for the verb, as shown in (23); hence, it makes sense to argue that the GEC is an example of constructional idioms which licenses the direct object as a syntactic argument.

To sum up, it is concluded that expression nominals, licensed as a part of a constructional idiom, are in the direct object position.
Now returning back to the discussion of the passivizability, one might suppose that the unpassivizability of the GEC follows straightforwardly from this idiomatic nature of the construction itself, as with the case of *kick the bucket* (*The bucket was kicked by John*). However, just because the GEC belongs to the category of constructional idiom does not mean that it cannot undergo passivization. The postverbal NP in the resultative construction does passivize (unless it is a reflexive pronoun, of course):

(26) a. The pot was cooked dry by Cathy.
    b. We were talked into a stupor by Tara.

(Jackendoff (1997:544))

Thus, the direct object analysis of the GEC still has to find the reason for the restriction of passivization.

In the next subsection, I show that the unavailability of passivization is ascribed to the existence of a bound variable immediately before the expression nominal; moreover, it is also demonstrated that the existence of a bound variable can be accounted for by the constructional semantics.

### 3.2. Coreferentiality and Inalienable Possession

As Ross (1970:266) points out, the possessive NP which modifies the expression nominal must refer back to the subject NP, as shown in (27):

(27) a. Mary smiled {her / * his / ?* John’s} thanks.
    b. John nodded {his / * her / ?* Mary’s} agreement.

In (27), the possessives non-coreferential with the subjects are disallowed. In other words, the possessive NP modifying the expression nominal, as Massam (1990) claims, has the status of an obligatory bound variable that must be locally bound by the antecedent (cf. Chomsky (1981)). This coreferential requirement cannot apply to other kinds of direct objects, say, effected objects (emphasis mine):

(28) a. Healey himself would have loved to *build Shelby’s car*… (BNC A6W)
    b. *I baked his corn cake* in the ashes, and gave it to him.

(C.J. Barnes and J. M. Hawkes, *New National Forth Reader*)

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2 An informant reports that the examples with proper nouns are less unacceptable than those with the pronominals in that they give more information to reconstruct the sentential meanings. Yet, they are still considered to be unacceptable, at best marginal.
In sentences (28), the possessives in the object positions refer to individuals different from the subject referents. Why, then, does the coreferential requirement apply only to the GEC?

A closer look at the semantic status of expression nominals reveals that the coreferential requirement is imposed by the constructional meaning. More specifically, I propose that the requirement derives from the inalienable possession relation between the agent participant and the conveyed expression. In the event described by the GEC, as noted above, the agent expresses his or her message to an interlocutor by some gesture: For example, in *Mary smiled her thanks to her mother*, by smiling, she expressed her thanks to her mother. Here, the *thanks* designates Mary’s emotion or attitude, not any other individual’s. In other words, no one else but the agent can have the emotion or attitude, and conversely he or she cannot have anyone else’s. In this sense, the message denoted by the expression nominal is inalienable to the agent participant.

In terms of the concept of inalienable possession, I adopt the following definition introduced by Kimball (1973) (see also Cattell (1984:106) and Vergnaud and Zubizarreta (1992:596)):

(29) A is inalienably possessed by B if A exists only insofar as it is possessed by B.  
(Kimball (1973:263))

Following this definition, we can say that, in the GEC, the agent NP and the expression nominal establish the inalienable possession relation, because the emotion or attitude expressed by the agent exists only insofar as it is possessed by the agent. Since the inalienable possessor, realized as the possessive NP, must refer to the same individual as the agent, thus, the obligatory coreference is imposed on the two NPs. That is, on the semantic ground, the possessive NP in the GEC must refer back to the subject NP denoting the inalienably possessor, as in (27).

The proposal that the GEC denotes the inalienable possession relation is empirically confirmed by four pieces of evidence. Firstly, in general, possessives that modify an inalienable object must be coreferential with the subject referents. Body part nouns in the inalienable possession relation must be possessed by the agent participants:

(30) a. Jenifer craned {her / * his} neck.  
b. Linda winked {her / * his} eye.  
(Levin (1993:220-221))
The parallelism between (27) and (30) supports the claim that expression nominals, as with body part objects, denote inalienably possessed entities, and that the inalienability in turn imposes the obligatory coreference with the subject referents.

Secondly, inalienably possessed NPs exhibit the definiteness effect. Consider the following examples (Guéron (2003:192)):³

(31) a. John raised his hand.
   b. John gave his hand to Mary.

(32) a. *John raised the hand.
   b. *John gave the hand to Mary.

As indicated by (32), the definite articles cannot occur in the position preceding the inalienably possessed NPs. The same holds true of the GEC:

(33) a. *Pauline smiled the thanks.
   b. *John nodded the agreement.

The definiteness effect in (33) is a consequence of the fact that the expression nominals have the inalienable possession relation with the agent participants.

Thirdly, as observed by Kimball (1973), inalienably possessed NPs do not pronominalize with definite pronouns, which is the same behavior with the case of expression nominals:

(34) John had a cold yesterday, but someone else has {one / * it} now.

(35) Taro waved goodbye. Hanako waved {? one / ?* it}, too. (= (11b))

Finally, as pointed out in Barker (to appear), relational nouns such as brother, which falls under the category of inalienably possessed NP, can participate in the postnominal genitive possessive construction, as in (36a), but other nouns cannot, as in (36b). Expression nominals behave like the former, as illustrated in (37).

(36) a. the brother of Mary  [inalienable]
    (cf. Mary’s brother)
   b. *the cloud of Mary  [alienable]
    (cf. Mary’s cloud ‘the cloud Mary is watching’)

³ Examples (32) are acceptable on the interpretation that the hand is understood as referring to an object alienable to John: John raised someone else’s hand, not John’s, for example.
(37) a. Agnes Sowler ... received gifts and the personal thanks of Stockton mayor Michael O’Brien ... (BNC K4W)
b. Claverhouse then said, “Take goodbye of your wife and children,” ... and John kissed his family. (BNC BM6)

As explicitly shown in (37), NPs that can serve as expression nominals occur in the diagnostic environment for inalienable possession. The evidence presented so far bears out our claim that expression nominals are inalienably possessed NPs.

The above discussion leads us to the following descriptive generalization, which applies to the GEC:

(38) The Obligatory Coreference Condition:

A possessive NP which modifies an inalienably possessed NP must be coreferential with its possessor NP.

It would be worth emphasizing here that the basic of this coreference condition is semantic in nature. The inalienable possession relation can be established in the contexts where the possessor acts on or in relation to the possessed. For example, in *the doctor raised his hand*, the possessive pronoun may or may not refer back to the subject NP. On the coreferential reading, *his hand* must be understood as a part of the doctor, i.e. the inalienable interpretation is retained. On the non-coreferential reading, the object is understood to be any other individual’s, e.g. a patient’s hand. In either case, however, the structural status of *his hand* is the same. What is crucial for the obligatory coreference is whether the sentence in question receives an inalienable interpretation. The GEC has such a meaning as a part of its constructional meaning ‘X express X’s [emotion / attitude] by V-ing.’ Therefore, the obligatory coreferential requirement observed in the construction falls out from the construction-specific meaning.

Based on this line of approach, the ill-formedness of passivized GECs can be accounted for by the violation of (38). According to Zubizarreta (1985), in English passives, the NP in the by-phrase cannot refer back to the possessive pronoun in the subject.

(39) a. Johni loves hisi mother.
b. *Hisi mother is loved by Johni.
c. Johni played hisi role.
d. *Hisi role was played by Johni.

(Zubizarreta (1985:255-256), with slight modifications)
In (39b, d), the possessive pronouns in the subject NPs cannot be coreferential with the antecedent NPs in the by-phrases, respectively.

In light of this referential restriction on passives, passivized GECs, as exemplified in (40), are disallowed owing to the violation of (38): No coreferential relation between the antecedent in the by-phrase and the possessive NP is available:

(40) a. * Her thanks were smiled by Rilla. (Massam (1990:180))
   b. * Her assent was smiled. (= (4a))
   c. * Grateful thanks were smiled by Rilla. (= (2b))

In (40a), the bound pronoun her cannot be coreferential with the antecedent Rilla due to the structure of passives shown in (39b, d); hence the ungrammaticality. In (40b), even if it lacks the by-phrase which includes the antecedent, the sentence is still ruled out; this is because no appropriate referential relation is structurally established for the possessive pronoun in the subject NP. Both of the examples violate the condition (38).

Interestingly, sentence (40c), in which no bound pronoun occurs before the expression nominal, is also unacceptable. Although Massam (1990) argues without any basis that there is an implicit bound variable in (40c), this fact still can be naturally explained by my analysis. Since the obligatory coreference condition in (38) results from the constructional meaning of the inalienable possession, (40c) contains an implicit possessive pronoun licensed by the construction: Namely, it semantically parallels with (41):

(41) * Her grateful thanks were smiled by Rilla.

Therefore, the ungrammaticality of (40c), as well as that of (40a, b), is related to the violation of (38).

To summarize the discussion up to this point, the unpassivizability of the GEC stems from the incompatibility between the obligatory coreference condition imposed by the constructional meaning and the referential relation established in passives. If this analysis is on the right track, it predicts that passivized GECs are acceptable because the condition (38) is somehow not applied. I will propose in the subsequent section that this prediction is borne out.

4. The Event-Reporting Function of Passivized GECs

In the previous section, I have argued that the obligatory coreference rooted in the inalienable possession relation explains why passivization of the GEC is
generally prohibited. This section addresses another issue of why passivized GECs still exist.

Now, let us begin by reconsidering the data of passivized GECs. For convenience of references, the relevant examples are repeated here as (42):

(42) a. Warm thanks were smiled at the audience.
   b. On the day of departure, Glyndwr’s men assembled, a few mounted, and wagons were ready to roll. *Final goodbyes were waved.*

It should be noted that, in these examples, there is no element encoding the agent participant, such as a possessor pronoun and a by-NP. Further examples of passivized GECs confirm this observation. The relevant parts are given in italics below:

(43) a. ... as the time [of fitting out] neared when the last line is cast off, *the goodbyes are waved,* the screw makes the water boil under the stern, and the passage to Alaska is under way.  
   (J. Raban, *Passage to Juneau: A Sea and Its Meanings*)
   b. *A general assent was nodded,* and all eyes were directed towards our hero.  
   (J. Hook, *Pen Owen*)
   c. “You got a smoke?” the young black man asks the older white man who is pulling hard on a cigarette. “This is all I got.” “How about a drag?” Without hesitation it’s handed over. *Thanks are nodded.*  
   (Newspaper of the Catholic Archdiocese of Atlanta, Local News Archive)

In (43a), the passage describes a typical scene when a ship sets sail for Alaska. Here again, no information about the relevant agents is explicitly mentioned. The same also goes for (43b, c).

Given the fact observed above, the following generalization can be made as the licensing condition of passivized GECs:

(44) No element encoding the agent of the event must occur in the sentence.

The validity of this condition is empirically supported by the fact that the occurrence of agentive by-phrases degrades the acceptability of (42):

(45) a.?*Warm thanks were smiled at the audience by Mary.
   b.?*Final goodbyes were waved by the people.
Moreover, condition (44) is further validated by independent evidence. As Jackendoff (1990) remarks, idiomatic expressions with an inalienably possessed body part noun, such as *gnash one's teeth*, can undergo passivization as long as there occurs no explicit element expressing the agent of the event. Compare the two sentences in (46):

(46) a. *His teeth were gnashed (by Bill).* (Jackendoff (1990:216))
   b. Many teeth were gnashed as the home team went down to defeat. (Jackendoff (1990:298))

In (46a), the possessive pronoun occurs in the subject position (as well as a *by*-phrase). The ungrammaticality is accounted for in the same fashion with (40): The obligatory coreferential requirement, which is ascribed to the inalienable possession relation established in a sentence, is not satisfied due to the very nature of passive sentences, as already observed in (39b, d). By contrast, in (46b), no element expressing the agent appears in the sentence. In this case, intriguingly, the passivization of the inalienably possessed NP is acceptable, as with the GECs in (42-43). In other words, inalienable possession constructions such as the GEC and the body part construction can undergo passivization only if the sentence in question meets the condition in (44). Further attested examples of the passivized inalienable body part construction are also subject to the condition (44):

(47) a. A small gasp of horror ran through the assembled crowd, *necks were craned*; and Monsieur Dabadie was one of the first want to see...
   (Émile Zola, trans. R. Pearson, *La Bé Humaine*)
   b. ... *white hands were waved towards her* with animation in a flutter of greetings. (J. Conrad, *Nostromo*)

It is clear now that what makes the GEC passivizable is the very condition in (44), which applies to constructions associated with the inalienable possession.

Then, the issue that should be addressed next is how passivization of the GEC is allowed if no element describing the agent occurs in the sentence. Recall here that in the previous section, I have defined the inalienable possession held in the GEC as the semantic relation between the agent and the emotion or attitude described by the expression nominal. Put differently, in the inalienable relationship, the agent is defined to "possess" the entity designated by the expression nominal, and he/she conveys it to a putative interlocutor in the scene described.

However, this meaning is semantically backgrounded or defocused by virtue
of the semantic function of passives. If a sentence is passivized, the agent argument is demoted to the oblique by-phrase and can be syntactically suppressed. In this case, it is interpreted as nonspecific or presupposed in the context. As a result, the unexpressed agent is semantically less prominent than the theme or patient, a participant realized as the subject, as if the agent is excluded from the scene and no longer exists. Along with it, the inalienable possession relation itself is not focused on in the relevant event.

On the contrary, this agent-suppressing process focuses on reporting an event or scene. In fact, the passages observed in (43) emphasize reporting the events that happen in the described scene, not characterizing a particular entity as a continuing topic. For instance, (43a) reports what kind of events will happen when a ship sets sail for Alaska. This function is the characteristic of event-reporting sentences.

Whether the sentence in question is event-reporting or not is diagnosed by the following question-answer test:

(48) Q: What happened?
   A: John washed the dishes!

(50) Q: What happened?
   A: Warm thanks were smiled at the audience.
   (49) Q: What happens?
   A: The last line is cast off, the goodbyes are waved, the screw makes the water boil under the stern, and the passage to Alaska is under way.

Note here that the answer to the question what happened? has no element which serves as a topic. In other words, the overall sentence is in focus (Lambrecht (1994), Erteshik-Shir (2007), among others)).

Intriguingly, the same function holds for passivized GECs. As illustrated in (49-50), the passivized GECs serve as the right answers to the question What happened?:

(49) Q: What happened?
   A: Warm thanks were smiled at the audience.
(50) Q: What happens?
   A: The last line is cast off, the goodbyes are waved, the screw makes the water boil under the stern, and the passage to Alaska is under way.

In these cases, the focus of a sentence covers all over the proposition. Based upon this fact, it can be argued that the passivization of the GEC is allowed by the event-reporting function in the discourse, which is reflected as the suppression of the agent participant in form. In other words, this discourse function renders the agent a backgrounded or defocused participant in the scene, bringing about the backgrounding of the inalienable possession relation of the GEC.
Independent evidence which shows that suppressing the agent, as defined in (44), is motivated by the discourse function comes from the locative inversion construction with a passive verb:

(51) a. Among the guests of honor was seated my mother.
    b. In this rainforest can be found the reclusive lyrebird.
    c. On the table has been placed a tarte Tatin.

(Bresnan (1994:78))

It has been acknowledged that the locative inversion construction has a special discourse function of presentational focus: As parallel to event-reporting sentences, which introduce a new event into the discourse, the locative inversion construction introduces or reintroduces the logical subject in the sentence final position as a new entity into the discourse (for a more detailed discussion, see Bresnan (1994) and the references cited therein). In this environment, the by-phrase encoding the agent of the event cannot occur, as pointed out by Bresnan (1994):

(52) a.?? Among the guests of honor was seated my mother by my friend Rose.
    b.?? In this rainforest can be found the reclusive lyrebird by a lucky hiker.
    c.?? On the table has been placed a tarte Tatin by Susan.

(Bresnan (1994:78-79))

The decreased acceptability in (52), on a par with the case of (45), suggests that, whether or not the sentence presents a new event or a new entity, the presentational function restricts the occurrence of the agent-encoding element in passive sentences. Conversely, the agent-suppressing process seen in passives is inextricably associated with the presentational function in discourse.

As a consequence, it is concluded that the GEC can undergo passivization only if the inalienably possessed agent is interpreted as a backgrounded or defocused participant in the scene, due to the discourse function of event-reporting.

5. Conclusion

In conclusion, this paper has been concerned with the passivizability of the GEC. I have revealed that the GEC cannot undergo passivization because of the obligatory coreference condition driven by the construction-specific meaning of inalienable possession relation. Furthermore, I have argued that the passivization is possible if the discourse function of event-reporting affects the inalienability implied in the GEC through backgrounding the agent participant in the described
scene. This consequence has an interesting implication that the contradictory syntactic behavior falls out from the interaction between the constructional semantics and the discourse function.

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