

On the English possessive constructions: NP's N and the N of NP

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0. Introduction

In this paper I will discuss the semantics of possessive constructions within the framework of cognitive grammar as developed in recent works of Ronald Langacker. Attention is drawn to the differentiated expressive characteristics between the possessive genitives such as *the ship's funnel* and the corresponding of-constructions like *the funnel of the ship*. This paper provides a unified account of the alternation between the two constructions as a natural consequence of their distinctive semantic structures.*

1. Previous studies

Regarding the study on the selection between the possessive genitives and the of-constructions, there has been a lot of literature, of which I will survey two notable works, as a starting point of the discussion: Hawkins (1981) and Deane (1987)¹.

1.1. Hawkins's (1981) analysis

Hawkins proposes a semantic hierarchy to give the solution to the distributional problem between [NP's N] and [the N of NP], as illustrated

in (1):

- (1) human < human attribute < non-human animate < non-human inanimate

(Hawkins 1981: 260)

His principal claim is that the hierarchy above determines that the first constituent will be equal to or higher than the second constituent on the hierarchy. Observe the following examples:

- (2) a. Mary's brother — the brother of Mary
b. the ship's funnel — the funnel of the ship
c. the book's cover — the cover of the book
- (3) a. Mary's car — ?the car of Mary
b. the company's car — ?the car of the company
c. the library's heater — ?the heater of the library
- (4) a. the foot of the mountain — ?the mountain's foot
b. the bottom of the valley — ?the valley's bottom
c. the mouth of the river — ?the river's mouth

According to Hawkins, in cases where both possessor and possessed NPs are the same category on the hierarchy as in (2) either construction (i.e. [NP's N] and [the N of NP]) is acceptable, whereas in (3a) the noun *Mary* (human) is higher than the noun *car* (non-human inanimate) on the hierarchy, hence the low acceptability of the of-construction results. With regard to the infelicity of (3b-c) and (4a-c), he remarks that since the collective

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nouns such as *the company* and *the library* in (3b-c) have implied human reference the nouns of this kind are higher than the nouns like *car* and *heater* on the semantic hierarchy, and that in (4a-c) *foot* and *mouth*, which are originally body-part terms, have undergone metaphorical extension, and consequently it is for this reason that the construction in which the body-part term comes first is more appropriate than the construction in which it comes second. However, his interpretation of the nouns like *the company* and *the library* as implying human reference leaves something to be desired. In addition, his approach cannot account for the examples like the following in the same fashion:

- (5) a. *the problem's part — the part of the problem
b. *the house's front — the front of the house
c. *victory's monument — the monument of victory

In the examples above, since both possessor and possessed NPs are the same category on the semantic hierarchy, his theory erroneously predicts that either construction is acceptable. However, the possessive genitive constructions, unlike the corresponding of-constructions, are unacceptable. More importantly, the fact that the expression (6b) is perfectly acceptable gives a theoretical contradiction to his analysis:

- (6) a. Shakespeare's sonnets.
b. the sonnets of Shakespeare

With these problems in mind, we will turn to making an overview of Deane's (1987) analysis.

1.2. Deane's (1987) analysis

Deane (1987) tries to predict the selection between the prenominal and postnominal possessives in terms of the Silverstein hierarchy indicated in (7), making the following generalization: the higher the possessor NP is on the Silverstein hierarchy, the more acceptable it will be in the prenominal possessive, and the less acceptable in the postnominal possessive. Conversely, the lower the NP is on the Silverstein hierarchy, the more acceptable it will be in the postnominal possessive, and the less acceptable in the prenominal possessive:

(7) Silverstein hierarchy:

1st person pronoun > 2nd person pronoun > 3rd person anaphor > 3rd person demonstrative > Proper name > Kin-term > Human and animate NP > Concrete object > Container > Location > Perceivable > Abstract

(Deane 1987: 67)

It should be noted here that his theory is more accurate than that of Hawkins in that the Silverstein hierarchy above can correctly predict the difference in the acceptability between the expressions repeated as (8) which cannot be accounted for in terms of the semantic hierarchy presented by Hawkins.

- (8) a. *victory's monument
 b. the monument of victory (= (5c))

The possessor NP *victory* is at the very bottom of Silverstein hierarchy, which naturally predicts the unacceptability of (8a).

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Furthermore, what is noteworthy in Deane's analysis is that he ascribes the selection between the prenominal and postnominal possessives to discourse function of the English possessive constructions: the notions of topic and focus, which is compatible with the general properties of information structure, because in both constructions the first element functions as topic, and the second as focus, as indicated below:

(9)	Possessor NP	Possessed NP
Prenominal possessive	Relatively topical	Relatively in focus
Postnominal possessive	Relatively in focus	Relatively topical

(Deane 1987: 71)

- (10) a. [NP' N] b. [the N of NP]
 topic focus topic focus

This means that the prenominal possessives occur in the constructions where the possessor NP is topical, whereas the postnominal possessives occur in the constructions where the possessed NP is topical, as demonstrated in (11) and (12):

- (11) a. (Public Poster): A meeting of Overeaters Anonymous will take place
 at the home of Agnes Levy, 184 Elm St., on . . .
 b. (Public Poster): ?? A meeting of Overeaters Anonymous will take
 place at Agnes Levy's home, 184 Elm St., on . . .
- (12) What: A Birthday Party
 Who: For Amy Lindsey
 When: 2:00 on Saturday afternoon

Where: Amy's house

Deane argues that on a public poster, only (11a) makes sense because readers of a public poster cannot be expected to know who *Agnes Levy* is, and therefore the possessor NP (i.e. *Agnes Levy*) cannot be treated as topical information. By contrast, he also points out that since *Amy* in (12) is topical, backgrounded information by the end of the invitation the prenominal possessive is natural.

More importantly, he states that the hierarchy is organized according to the salience of a referent within the context of speaking, as shown in (13):

(13) Salience hierarchy:

anaphoric element > demonstrative > indexical NP such as kin-terms > animate > movable concrete object > abstract

According to him, the more salient the referent is likely to be within the situation of speaking, and the more tightly the NP's reference is determined by the situation of speaking, the higher it will be on the Silverstein hierarchy, and the likelier it will be construed as topical in the absence of indications to the contrary. Therefore, it follows from this observation that it is not the case that there is a similarity of function and meaning between the prenominal and postnominal possessives, and therefore the two constructions are interchangeable. And this is compatible with the general tendency that the postnominal genitive is more acceptable with indefinite possessors, long or complex NPs, or NPs which have contrastive meaning, as in (14) and (15):

(14) a. That is the footprint of a deer. (vs. a deer's footprint)

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b. That is the foot of an old man from Paris. (vs. an old man from Paris' foot)

c. The cars of this salesman are truly top quality. (vs. the salesman)

(Deane 1987: 66)

(15) He crashed into (a) *?the car of the lady.

(b) the car of the lady in front of him.

(c) the car of the girl he hoped to marry.

(Quirk et al. 1985: 1277)

Evidently, Deane's approach from the viewpoint of discourse function captures the nature of each construction. However, it seems that there still remains the same problem that Hawkins (1981) has: the problem of what the preference for the of-construction with partitive meaning results from.

In what follows, on the basis of the analyses observed so far, I will consider the genitive constructions (i.e. NP'N) and the of-constructions respectively, and make their semantic natures more explicit from a cognitive point of view. My claim in the next section is to show that the two constructions differ from each other in the construal of the situation to be described.

2. Semantic structures of the two possessive constructions

For the analysis of possessives within the framework of cognitive grammar, Langacker (1993) regards this construction as a manifestation of referent-point ability which is defined as the ability to invoke the conception of one entity for purposes of establishing mental contact with another². He argues that this reference-point phenomenon is fundamental and ubiquitous

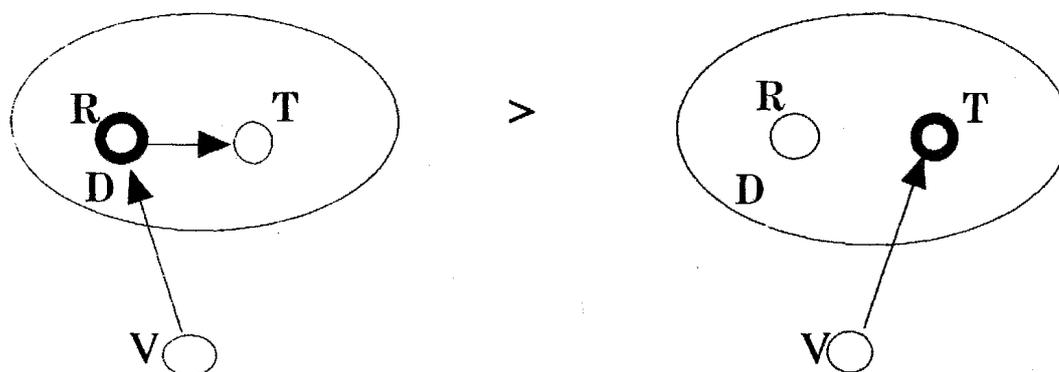


Figure 1

(Langacker 1993: 6)

in our moment-to-moment experience, and sketches the essential aspects of this ability, as in the Figure 1 above. In the figure, the circle labeled C represents the conceptualizer, and R stands for the reference point, and T the target, i.e., the entity that the conceptualizer establishes mental contact with via reference point. The dashed arrows indicate the mental path the conceptualizer follows in reaching the target. And the ellipse labeled D (dominion) represents the conceptual region (or the set of entities) to which the reference point affords direct access. Following Langacker, crucial to this cognitive model is that an entity chosen as a reference point has a certain cognitive salience either intrinsically or contextually determined, and that the salience has a dynamic aspect. This means that the notion which serves as a reference point must first be activated and thus established as a salient entity; however, when the notion is actually used as a reference point, it is the target thereby reached that becomes prominent in the sense of being the focus of the conceptualizer's conception.

It is quite true that this analysis gives a natural, unified explanation to the possessive constructions, but there arises a further question of what factors have to do with the status of a reference point. With regard to this, Langacker (1987, 1993) argues that the very purpose of a kinship term is to

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situate people genealogically with respect to a reference individual (“ego”), and only in relation to a particular “ego” does it make sense to call someone *a cousin, an uncle, a sister, or a stepson*, and that a part can only be conceived in relation to the whole which functions as a reference point for its conception and characterization. Taylor (1989) (as well as Langacker (1987)) also claims that the overwhelming majority of nouns is relational to some degree, in that they invoke as part of their semantic structure various kinds of entities in addition to that being profiled, concluding that a possessive expression identifies the thing designated by its head noun by elaboration, in the genitive nominal, of another thing which participates in an unprofiled relation with the thing designated by the head noun. Taylor illustrates his theory with the following examples:

- (16) a. John's employer
b. the car's driver
c. the president's advisor
d. the child's teacher

- (17) a. John's employee
b. the company's appointees

In (16) and (17), the respective head nouns are relational to the extent that their genitive nominals elaborate one participant within the domain required in conceptualizing the head noun.

- (18) a. John's friend
b. the secretary's colleagues
c. Shakespeare's contemporaries

The head nouns in (18) are also relational in that they invoke, in their semantic structure, various kinds of intererpersonal relationships. Taylor's characterization of relations expressible with the possessive genitive constructions is very insightful; however, it seems that there remains a residual problem to be discussed further in his analysis. He points out, on the one hand, that temporal genitives are rather common, but locative genitives are relatively infrequent, as shown in (19) and (20):

- (19) a. yesterday's event
b. this morning's car crash
c. tomorrow's weather

- (20) a. *London's work
b. *York Road's car crash

But he asserts, on the other hand, that some nouns do invoke the notion of place, and the acceptability of the expressions like those in (21) lies in the fact that the referent of each head noun can be identified from the perspective of a place.

- (21) a. Britain's climate
b. West Germany's birthrate
c. Bristol's sales figure

Crucially, his approach has difficulty in accounting for the following data:

- (22) a. (*) the room's teacher
b. (*) today's child

c. (*) yesterday's girlfriend

The expressions like those in (22) are normally unacceptable; however, all the expressions becomes appropriate when particular contexts are provided (see Hayase 1993 for details).³ This means that we can make more schematic generalization to capture the linguistic phenomenon in question. That is to say, for the idiosyncratic status of the possessive genitive, it is best described as serving as the immediate scope of the head noun which is defined as follows:

(23) Immediate scope:

When scopes are nested one within another, the immediate scope is the innermost layer, the one immediately relevant at a given level of organization. A predication's profile is a kind of focal point within its immediate scope.

(Langacker 1991: 549)

The notion above can be exemplified by the following examples:

(24) a. A body has two arms.

b. An arm has an elbow and a hand.

c. A hand has five fingers.

d. A finger has three knuckles and a fingernail.

(25) a. ?A body has two elbows.

b. ?An arm has five fingers.

c. ??An arm has five fingernails and fourteen knuckles.

d. ???A body has twenty-eight knuckles.

(Langacker 1987: 119)

The marginality of the sentences in (25) indicates that although the concept *body* as a whole functions as the overall scope in conceptualizing the notions such as *arm*, *hand*, and *finger*, the sentences are infelicitous because the subject does not designate the region of the body that serves as the immediate scope of predication or the direct object noun.

In addition, when we attribute the unacceptability of the expressions like those in (26) to the fact that the head noun in each expression designates an unbounded region or non-delimited entity (Taylor 1987 and Hayase 1993), it is possible that we can characterize the possessive genitive construction as stated in (27):

- (26) a. *the journey's rest
b. *??the army's smaller portion
c. ?the mountain's foot
d. ?the river's mouth
e. *the house's front
f. *the problem's part.

- (27) Semantic principle of possessive genitive constructions:

Possessive genitive constructions are acceptable when the possessive genitive serves as the immediate scope of a head noun intrinsically or contextually, thereby the referent described by the head noun can uniquely be identified as a bounded, simplex concept.

Given the understanding of semantic principle shown in (27) being valid enough to characterize the possessive genitive construction, our next concern is the problem of what is the semantic property by which we can characterize the of-construction.

The possessive genitives and the of-constructions, as already noted, are not necessarily interchangeable. Rather, the former has broader range of use than the latter, which is exemplified by the fact that there are many cases where the possessive genitives correspond to the prepositional phrases other than the of-phrase, as shown in (28):

- (28) a. the jar's label — the label on the jar
b. the jar's lid — the lid on/to the jar
c. the city's roads — the roads in the city
d. Monday's snowfall — the snowfall on Monday
e. last year's profit — the profit for last year
f. the girl's new dress — the new dress for the girl
g. the lawn's brown spot — the brown spot in the lawn

From the examples above it is evident that the of-construction has a different semantic property from that of the possessive genitive. With regard to this, Langacker (1992) argues that schematically *of* designates some kind of intrinsic relationship between the two participants. He states that a part-whole relation is prototypical in that one of them (i.e. part) constitutes an inherent and restricted subpart of the other (i.e. whole), and explains the notion of intrinsicness as an extension of this prototype with some linguistic data.⁴ Note here that such a restriction is not necessarily imposed on the possessive genitives.

Now, when we return to the examples like those in (26), we easily notice that the corresponding of-constructions are perfectly acceptable, as given in (29):

- (29) a. the rest of the journey

- b. the smaller portion of the army
- c. the foot of the mountain
- d. the mouth of the river

It has been pointed out in literature (Deane 1987, Quirk et al. 1985, and many others) that for a part-whole relationship it is preferable to use the of-construction rather than the possessive genitive. However, as the examples in (30) show, it is no doubt that there are cases in which either construction is acceptable:

- (30)
- a. the ship's funnel — the funnel of the ship
 - b. the building's door — the door of the building
 - c. the bicycle's handle — the handle of the bicycle

Here, we can observe that the difference in the acceptability of the possessive genitive constructions between (26) and (30) indicates the bounded/unbounded region asymmetry of the concepts described by the head nouns, which is correctly predicted by the principle (27). The notions like *funnel*, *door*, and *handle* can be conceived as such, whereas the notions such as *rest*, *small portion*, *foot*, and *mouth* in (26) can only be conceived in relation to the whole. Furthermore, what is important at this point is to recall the dynamic aspect of this construction ; that is, the salience of an entity used as a reference-point (i.e. the possessive genitive) is, as it were, downgraded or backgrounded when the referent of the head noun is established or identified. And this observation leads naturally to the idea that the acceptability of the expressions in (29), as opposed to (26), can be best described by arguing that in the of-constructions the salience of the entity within the of-phrase still remains after the establishment of the referent designated by

the head noun. This means consequently that in this construction both the head noun and the noun within the of-phrase are salient, which is indispensable for the unbounded region designated by the head noun because such a concept cannot be conceived without the entity within the of-phrase. The salience of the former results from the very fact that it is a head noun, and the salience of the latter comes from its structure. Note here that the relationship between the two entities is a head-complement relationship, but not a head-modifier relationship. This perspective can be verified to the extent that it gives a unified explanation for the problem of why a part-whole relationship is preferable to be expressed by the of-construction rather than by the possessive genitive, and of why in cases where the head noun is not a delimited entity as indicated in (26) and (29), the of-construction is perfectly acceptable, while the corresponding possessive genitive is infelicitous.

In cognitive grammar, the grammatical categories other than nouns (i. e., verbs, prepositions, adjectives and adverbs) make up the categories of relations which profile the interconnections between entities. For example, the predication *in* profiles a simple spatial relationship between two things, one of which is contained within the other. Similarly, the predication *of* profiles an intrinsic relationship between two entities, as already noted. The cognitive model of the of-construction can be sketched in Figure 2. The primary intention of this figure is to show that there exists a mental linkage between the head noun and the noun within the of-phrase, which is indicated by the line linking them. This analysis is based on the observation that the relationship designated by the of-construction is intrinsic to the head's characterization, and that the entity within the of-phrase, unlike the possessive genitive as a reference-point, is indispensable concept to conceptualize the referent described by the head noun, which gives a

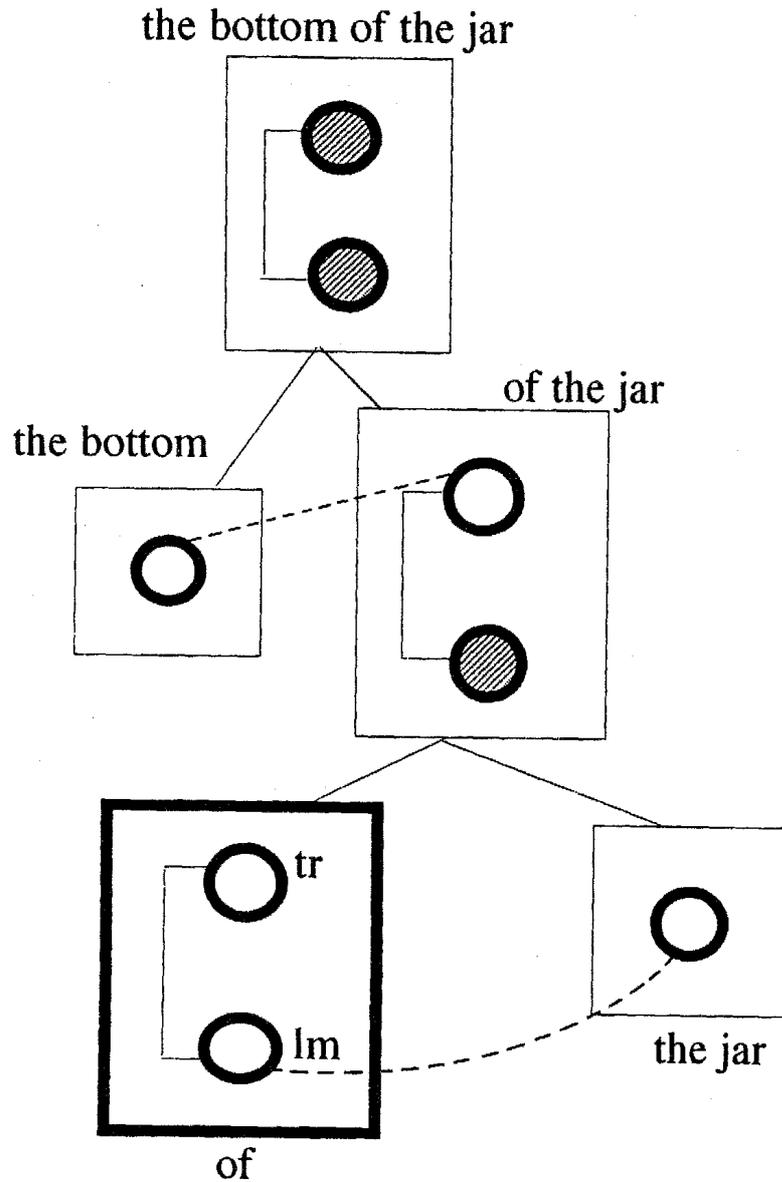


Figure 2

cognitive salience to the entity. It follows from this that the function of the of-phrase is descriptive or characterizing one, rather than the one identifying the head noun as a reference-point.⁵ This perspective is supported by the following examples:

- (31) a. John's school
 b. *the school of John

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The reason why the expression like **the school of John* is not appropriate results from the fact that it is difficult for *John* to be interpreted as an entity that describes or characterizes *the school*.

Furthermore, the difference between the two constructions in question is reflected in the respective conceptualizing processes. From the observation that the principal function of the possessive genitive is to serve as a unique identifier of the referent designated by the head noun, its conceptualization, to take *the ship's funnel* as an example, can be illustrated in Figure 3:

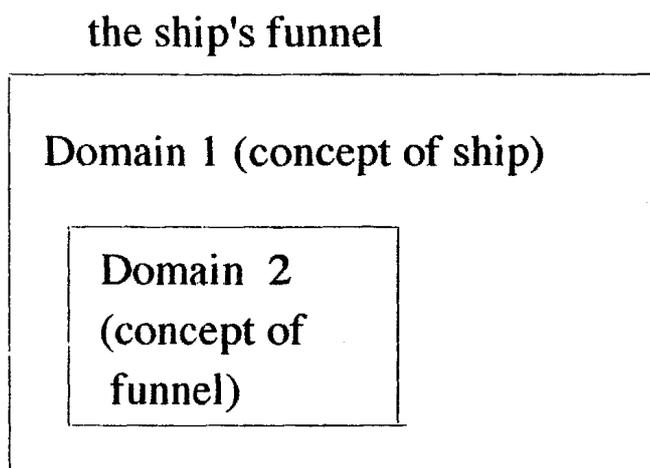


Figure 3

What is important here is that the conceptualizing process proceeds from Domain 1 to Domain 2, with *the ship* serving as a reference-point to establish mental contact with its *funnel*, and that in principle the concept of *the ship* is backgrounded in the course of this process.

By contrast, concerning the of-construction (i.e. *the funnel of the ship*), the process of conceptualization proceeds conversely from Domain 2 to Domain 1 from a viewpoint of the so-called "linearization." This difference in conceptualization must be reflected in the way we portray the

situation to be described for expressive purposes. Furthermore, crucial to the conceptualizing process from Domain 2 to Domain 1 is that the conception of *the ship* is not backgrounded, but still salient, which is supported by the frequently observed fact about the of-construction that the noun within the of-phrase is in focus. Moreover, what should be noticed at this point is that in both *the ship's funnel* and *the funnel of the ship* it is *funnel* that has the status of being a head noun. It is because of this cognitive process that both of the participants (i.e. *the funnel* and *the ship*) are cognized as salient. And they are mentally linked with each other because the of-phrase in this construction functions as an element for describing or characterizing the entity designated by the head noun.

From the discussion so far, the above-mentioned difference in the semantic structures and their conceptualizing processes gives a natural account for the alternation between the two constructions like those in (30), and the difference in the acceptability between (26) and (29). In conclusion, in cases where the head noun designates a bounded entity, either semantic structure and the corresponding conceptualizing process can be taken for expressive purposes. On the other hand, in cases where the head noun designates an unbounded entity, such an entity can only be conceptualized in relation to the intrinsically related notion (e.g. the whole). Hence the of-construction, which preserves the salience of the notion designated by the head noun, is felicitous.

3. Conclusion

I have argued in this paper that contrary to the general assumption that the possessive genitive construction and the of-construction have a semantic and functional similarity, the two constructions have respective semantic

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structures and the corresponding conceptualizing processes differentiable from each other. I have shown that the alternation between the two constructions is primarily motivated by the construal the conceptualizer evokes for his/her expressive purposes when either construction is available. I have viewed the selection between the two constructions as part of a total cognitive process of human mind.

I hope that the discussion thus far suffices to make my approach plausible, and may contribute to a better understanding of this linguistic phenomenon.

Notes

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1. This paper is not concerned with descriptive or compound genitives for the reason of their not having definite reference unlike possessive genitives. And also the so-called deverbal nominals are out of our research because they have different semantic properties from those which the two types of possessive constructions in question have.
2. Langacker (1993) regards both possessive constructions as a manifestation of reference point ability. However, my analysis is on the different line.
3. Hayase (1993) exemplifies the enhanced appropriateness of the expressions like those in (22) with the following contexts:
 - (i) One day in Fall, in a small school in California, the SAT was being given, and all of the tiny classrooms were filled with nervous, college-

bound teenagers. To each classroom was assigned a teacher who was to supervise the test. *One room's teacher* happened to be Mary Anderson, and it was on that day that her adventure began.

(ii) He always brings his girlfriend to football games, but he is quite a playboy, so *today's girlfriend* may be different from *yesterday's*.

(iii) Many say it is because *today's child* is much better fed than her ancestors.

4. Langacker characterizes the notion of 'intrinsicness' as the following: the notion of intrinsicness implies a minimal conceptual distance between the relational participants. (Langacker 1992: 488)

5. At this point, it seems that in descriptive or compound genitives such as *a women's college* the possessive genitives have descriptive function rather than identifying function.

References

- Deane, P. (1987) English Possessives, Topicality, and the Silverstein Hierarchy. *BLS* 13, 65-76.
- Hawkins, R. (1981) Towards an account of the possessive constructions: NP's N and the N of NP. *Journal of Linguistics* 17, 247-269.
- Hayase, N. (1993) Prototypical meaning vs. semantic constraints in the analysis of English possessive genitives. *English Linguistics* 10, 133-159.
- Langacker, R. (1987) *Foundations of Cognitive Grammar*. Vol.1. Stanford: Stanford University Press.
- _____ (1991) *Foundations of Cognitive Grammar*. Vol.2. Stanford: Stanford University Press.
- _____ (1992) The symbolic nature of cognitive grammar: The meaning of

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of and *of* *of*-periphrasis. In Putz, Martin (ed.), *Thirty Years of Linguistic Evolution: Studies in Honor of Rene Driven on the Occasion of his Sixtieth Birthday*. Amsterdam: Benjamins, 483-502.

_____ (1993) Reference-point constructions. *Cognitive Linguistics* 4-1, 1-38.

Taylor, J. (1989) Possessive genitive in English. *Linguistics* 27, 663-686.

_____ (1994) "Subjective" and "Objective" readings of possessor nominals. *Cognitive Linguistics* 5-3, 201-242.

Quirk et al. (1985) *A Comprehensive Grammar of the English Language* London: Longman.