

# Similarities and Dissimilarities of Four Manifestations of the Preposition *at* of Target

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## 1 Introduction

One notable function of the preposition *at* is to indicate a point in time and space where an event occurs and an entity exists.

(1) The party will be held at the main hall at 7 o'clock in the evening. The prepositional phrase *at the main hall* in (1) designates where the party will be held, and the prepositional phrase *at 7 o'clock* designates when the party will be held at the main hall.

What we are going to deal with in this paper is the target meaning of the preposition *at*. In addition to the indicating function of *at* exemplified above, the preposition *at* can also describe two entities which are distant from each other, and one of which takes an aim at the other in a way that a verb depicts. Take the verb phrase *run at*, for example.

(2) The dog ran at the stranger's neck.  
(2) describes a situation in which a dog forcefully ran toward a stranger's neck which was deemed as a target for the dog. Reaching the stranger's neck, however, was not necessarily entailed. Whether the dog reached the stranger's neck depends on a context in which the sentence occurs.

In the literature the target use of the preposition *at* has not yet been thoroughly examined. In this paper we classify the target use into the fol-

lowing four types, though all of these types share a (sometimes discontinuous) sequence of a verb and the preposition *at* of target: *look at* type, *run at* type, *shoot at* type, and *throw something at* type.<sup>(1)</sup>

- (3) **look at type:** aim at, laugh at, smile at, sneer at, speak at. . .  
**run at type:** dive at, fly at, gallop at, jump at, leap at, rush at. . .  
**shoot at type:** cut at, kick at, pull at, saw at, spit at, wipe at. . .  
**throw O at type:** aim O at, fling O at, kick O at, splash O at. . .

The categorization of the target use of *at* envisaged above is based on how ‘an object’ goes toward a target. While something invisible from the subject NP goes toward a target in the *look at* type,<sup>(2)</sup> the subject NP itself goes toward a target in the *run at* type which falls under verbs of motion. The *throw O at* type requires the object NP to go toward a target. The *shoot at* type is named the conative construction that is frequently discussed in relation to its transitive variant.

- (4) a. Paula hit the fence.  
       b. Paula hit at the fence. (Levin 1993:41)

The object NP *the fence* in the transitive variant in (4a) appears as the prepositional object headed by the preposition *at* in the conative construction, as in (4b). The subject NP *Paula*, on the other hand, bears the same semantic role of agent both in (4a) and (4b). Levin (1993:42) states that the use of the verb in the conative construction describes an attempted action without specifying whether the action was actually carried out. Kurosaki (1997) characterizes the conative construction as a construction that is best used to describe a situation in which an animate agent intentionally does his or her best to surmount a difficulty that he or she encounters in doing his or her activity. It is important to note that the *shoot at* type is different from those above-mentioned three types in that an event itself and not ‘an object’ can be seen as a target, or as an intended

goal for the subject NP in the *shoot at* type. In (4b) not the prepositional object NP *the fence* but the event that Paula hit the fence is seen as a target for Paula. The *shoot at* type is differentiated by this sense from the three other types. Section 4 sheds much light on this special treatment for the notion of target in the *shoot at* type.<sup>(3)</sup>

Our method of classifying the preposition *at* of target into four types further reveals similarities and dissimilarities in Transitivity, the formats of the lexical conceptual structure, and the schemata for the *look at*, *run at*, *shoot at*, and *throw O at* types.

## 2 Transitivity

Hopper and Thompson (1980) reveal that the notion of Transitivity is not a simple matter of whether a verb takes an object, and they propose that there are ten components in it, as in figure 1, which are all concerned with the effectiveness with which an action takes place.

	HIGH	LOW
A. participants	2 or more participants, A and O	1 participant
B. kinesis	action	non-action
C. aspect	telic	atelic
D. punctuality	punctual	non-punctual
E. volitionality	volitional	non-volitional
F. affirmation	affirmative	non-affirmative
G. mode	realis	irrealis
H. agency	A high in potency	A low in potency
I. affectedness of O	O totally affected	O not affected
J. individuation of O	O highly individuated	O non-individuated

Fig. 1 Components of Transitivity

The *look at*, *run at*, *shoot at*, and *throw O at* types with the target preposition *at* show almost the same degree of Transitivity except that the *throw O at* type alone exhibits higher Transitivity with regard to the affectedness and individuation components because of the overtly present object NP.

- (5) a. Scully looked at the new house.  
       b. Mulder rushed at the suspect.  
       c. The hunter shot at the rabbit.  
       d. Nomo threw the ball at the wall.

In each of the sentences above, at least two participants are involved in an atelic and ongoing action, because there is no obligatory endpoint specified in the meaning of the verb phrases. The sentences in (5) are all affirmative and realis. Preferably the agentive subject NP volitionally participates in an action in (5).<sup>(4)</sup> On the other hand, as the *look at*, *run at*, and *shoot at* types do not take the direct object NP, sentences in these types indicate a lower value for the affectedness and individuation of O parameters. Viewed in this light, we may reasonably conclude that the *look at*, *run at*, and *shoot at* types form one natural class and the *throw O at* type forms another.

The paired comparison of each type with other closely related but contrastive forms in light of the notion of Transitivity allows us to further classify the *look at*, *run at*, *shoot at*, and *throw O at* types into two classes. One class comprises the *look at*, *run at*, and *throw O at* types, and the other the *shoot at* type. First consider the verb phrase *look at* and the verb *see*.

- (6) a. Scully looked at the picture.  
       b. Scully saw the picture.

If a verb phrase can substitute for the phrase *do something*, the verb

phrase proves to be agentive. This test reveals that the verb phrase *look at* is an agentive verb phrase, and that the verb *see* falls under the non-agentive verb class.

(7) a. What John did was to look at Bill.

b.\*What John did was to see Bill. (Gruber 1967:943)

Even though Gruber's (1967) notion of agentivity is not equivalent to that of Hopper and Thompson's (1980), it is evident that the *look at* type shows higher Transitivity than *see*.

Secondly, let us look at the following sentences:

(8) a. Mulder ran at the entrance.

b. Mulder ran.

Two participants are necessary for the *run at* type, whereas one participant is sufficient for the intransitive verb *run*. (8a) exhibits higher volitionality than (8b). The subject *Mulder* in (8a) ran with the purpose of reaching the entrance, but it is perfectly acceptable to interpret that *Mulder* in (8b) might have run without purpose. By comparing the two sentences above, we see that the Transitivity of the *run at* type is higher than that of the intransitive verb *run*.

Thirdly, we investigate the conative alternation.

(9) a. The hunter shot at the rabbit.

b. The hunter shot the rabbit.

The conative construction in (9a) has the preposition *at* between a verb and an object. Such intervention of the preposition cannot be observed in the corresponding transitive verb construction in (9b). The aspectual component of Transitivity also differentiates the conative construction and the transitive construction: the atelic aspect is perceived for the conative construction, and the telic aspect for the transitive construction. (9a) depicts an ongoing action, whereas (9b) describes a punctual action, as the dispar-

ity in acceptability of the two sentences in (10) illustrates.

(10) a. The hunter shot at the rabbit for five minutes.

b.\*The hunter shot the rabbit for five minutes.

The prepositional object *the rabbit* bears the target role in (10a) but the object *the rabbit* the theme role in (10b) from the viewpoint of semantic roles. This difference correlates the differences in the degree of the affect-edness and individuation components in figure 1. The subject in the conative construction typically carries higher potency and volitionally performs his or her action, so the subject is limited to be animate in the construction. Nevertheless, such a restriction needs not to be imposed on the transitive construction.

(11) a. Nomo hit at the fence.

b. Nomo hit the fence.

c.\*The ball hit at the fence. (in the target reading)

d. The ball hit the fence.

(12) and (13) show a higher value for the volitionality component.

(12) a. Sally accidentally slapped his face, and then apologized at once.

b. ?Sally accidentally slapped at his face, and then apologized at once.

(13) a.\*Carol cut at the French bread, and succeeded quite easily.

b. ?Carol cut at the French bread, and managed to break it into two pieces five minutes after.

c. Carol cut at the French bread, but in vain.

To sum up, the conative construction might well be considered a de-transitivized construction, which lowers its Transitivity of the corresponding transitive construction.

The final comparison is made between the sentences in (14).

(14) a. Nomo threw the ball at Piazza.

b. Nomo threw the ball to Piazza.

The only superficial difference between the two sentences in (14) is the difference in the preposition they take: in (14a) the preposition *at* of target is employed, whilst in (14b) the preposition *to* of goal is selected. As often stated, (14a) prefers a reading that Nomo threw the ball, for example, in order for the ball to hit Piazza, but (14b) usually states that Nomo threw the ball in the direction of Piazza. This fact discriminates the degree of volitionality and agency in each of the sentences in (14). (14a) and (14b), respectively, signal higher and lower Transitivity.

To recapitulate this section, the examination of the Transitivity of the *look at*, *run at*, *shoot at*, and *throw O at* types discloses the possibility that the *look at*, *run at*, and *shoot at* types constitute one class, and the *throw O at* type another, corresponding to the presence or absence of the direct object NP in a sentence. The paired comparison of the four types with their contrastive forms, however, leads to a different categorization of them from what we have obtained before: the *look at*, *run at*, and *throw O at* types form a class, the *shoot at* type another.

### 3 Lexical Conceptual Structure

The *look at*, *run at*, *shoot at*, and *throw O at* types are analyzed in this section from the lexical conceptual structure's (henceforward, LCS) point of view. LCSs specify conceptual meanings of verbs, using abstract conceptual predicates. They encode the syntactically relevant aspects of verb meaning, how many participants are involved in the event a verb describes, and what role they have in the event. Kageyama (1996) introduces five types of LCSs, which are for stative, achievement, and activity verbs and two types of accomplishment verbs: one for verbs of creation,

and the other for verbs of change of state. Before presenting the formats of the LCSs for the *look at*, *run at*, *shoot at*, and *throw O at* types, let us perform a few tests on them.

- (15) a. Susan was looking at the target.
- b. Susan was jumping at the target.
- c. Susan was kicking at the ball.
- d. Susan was throwing the ball at the wall.

Whether a verb can take the progressive form *-ing* reveals which class a verb belongs to. The test suggests that the verbs in (15) are activity verbs in terms of Vendler's (1967) verb classification. They describe the action in question as being under progress without an explicit endpoint of the action like *Susan was swimming in the pool* describes.

- (16) a. Sam looked hard at the target.
- b. Sam jumped hard at the target.
- c. Sam kicked hard at the ball.
- d. Sam threw the ball hard at the wall.

(16) shows the compatibility of the *look at*, *run at*, *shoot at*, and *throw O at* types with the adverb *hard*, which proves that they are activity verbs. Kageyama (1996) suggests that this test confirms the existence of the predicate ACT in their LCSs.

The *have a V* construction serves to discriminate verb classes. If a verb is consistent with the construction, the verb can be seen as an activity verb. The result is that the verbs in (17) are classified into the activity verb class. This test gives good evidence for the predicate ACT in their LCSs.

- (17) a. Bill had a look at the target.
- b. Bill had a good run.
- c. Bill had a kick at the ball.



d. Bill had a throw of the ball.

The *give a V* construction is consonant with activity verbs. As the verbs in (18) with the construction sound acceptable, they are all activity verbs. Different from the *have a V* construction, this test supports the presence of the complex predicate ACT ON in their LCSs.

- (18) a. Carol gave Tom a wink.  
 b. Carol gave the car a good run.  
 c. Carol gave the ball a kick.  
 d. Carol gave the coin a fling.

We exploit Kageyama's (1996) LCS formats to present (19a) as an LCS for activity verb phrases including the *look at*, *run at*, *shoot at* types, and to present (19b) as an LCS for accomplishment verb phrases including the *throw O at* type, whose classification correlates with the classification we have obtained in section 2. Notice that each representation contains the format [EVENT x ACT ON y]. Though the format [EVENT x CAUSE [EVENT y MOVE TOWARD z]] can be alternatively assumed for (19b), the tests exemplified above except the progressive test lead to the conclusion that (19b) is appropriate in this case, because the compatibility test with *hard* and the *have a V* and *give a V* construction corroborate the presence of the semantic predicate ACT in their LCSs.

- (19) a. [EVENT x ACT ON y]  
 b. [EVENT [EVENT x ACT ON y] CAUSE [EVENT y MOVE TOWARD z]]

In (19a) the semantic predicate ACT is realized as a verb, while in (19b) the complex semantic predicate ACT ON is. The predicate ON is manifested as the preposition *at* in (19a), while the predicate TOWARD is in (19b). Let us take the verb phrases *look at*, and *throw O at*, for example. The verb phrase *look at* bears an LCS such as (19a). The predicate

ACT is realized as *look* and the predicate ON as *at*. On the other hand, the verb phrase *throw O at* has an LCS expressed in (19b). While the predicate TOWARD is realized as *at*, the rest of the predicates is realized as *throw*. It is significant to stress that the *look at*, *run at*, and *shoot at* types are syntactically intransitive because of the intervening preposition *at*, but they are transitive at the level of LCS. This is strengthened by the fact that these verbs are eligible for the prepositional passive construction.<sup>(5)</sup>

- (20) a. Corot's pictures were looked at by many visitors.  
 b. That rope was jumped at by frogs.  
 c. That rabbit was shot at by the hunter.

#### 4 Schemata for the Four Verb Phrases

Our findings in the previous sections are schematically summarized in this section. The schema we employ in this paper includes information on structural and semantic properties, and the primary pragmatic function of the *look at*, *run at*, *shoot at*, and *throw O at* types.<sup>(6)</sup> The first schema represented below is for the *look at* type:

(21) Structure: [NP<sub>1</sub> V AT NP<sub>2</sub>]

NP<sub>1</sub>=coded as a subject

NP<sub>2</sub>=coded as an oblique object headed by the preposition *at*

Semantics: NP<sub>1</sub> ACTS ON NP<sub>2</sub>; *i.e.*

NP<sub>1</sub>=animate agent, NP<sub>2</sub>=target

NP<sub>1</sub> acts so as to let objects emanating from NP<sub>1</sub> be at the target  
 NP<sub>2</sub>

Primary Pragmatic Function: focusing of target

The LCS format of the *look at* type envisaged in section 3 is reflected as a

semantic property in this schema. The crux is that the entry for semantics contains a piece of information of how participants are involved in an event. The purposive phrase *so as to* invokes a target reading of the *look at* type. As stated in section 1, ‘an object’ that goes toward a target is *objects emanating from NP<sub>1</sub>*. The specification *let objects emanating from NP<sub>1</sub> be at the target NP<sub>2</sub>* requires that ‘an object’ exists at the place of NP<sub>2</sub>. Note that the preposition *at* in this specification does not indicate a target, but a point in place.

Below is a schema for the *run at* type. The only difference between (21) and (22) is ‘an object’ going toward a target: in the *run at* type ‘an object’ is NP<sub>1</sub> itself, but in the *look at* type it is metaphorically extended *objects emanating from NP<sub>1</sub>*.

(22) Structure: [NP<sub>1</sub> V AT NP<sub>2</sub>]

NP<sub>1</sub>=coded as a subject

NP<sub>2</sub>=coded as an oblique object headed by the preposition *at*

Semantics: NP<sub>1</sub> ACTS ON NP<sub>2</sub>; *i.e.*

NP<sub>1</sub>=animate agent, NP<sub>2</sub>=target

NP<sub>1</sub> acts so as to let NP<sub>1</sub> be at the target NP<sub>2</sub>

Primary Pragmatic Function: focusing of target

(23) is a schema for the *shoot at* type. This type needs an agent’s higher volitionality, exemplified in section 2, so that the adverb *intentionally* is added as a part of the semantic properties of the *shoot at* type. This in turn results in the process-focusing nature of this type. Of great interest in this schema would be the specification *let NP<sub>1</sub> act on NP<sub>2</sub>*. The specification *let an action performed by NP<sub>1</sub> be at the target NP<sub>2</sub>* metaphorically extends to the specification *let NP<sub>1</sub> act on NP<sub>2</sub>*, as in (23). The fact cannot be overemphasized that neither NP<sub>1</sub> nor objects emanating from NP<sub>1</sub> go toward an entity. *John* in the sentence *John wiped at the ta-*

*ble* does not go toward the table, nor does anything from *John* go there. Rather, *John* does an action of wiping to achieve an intended result expressed in the sentence *John wiped the table*: the purposive phrase *so as to let NP<sub>1</sub> act on NP<sub>2</sub>* is most appropriately considered to be a target for the NP<sub>1</sub>. An event, and not an entity is regarded as a target in the *shoot at* type. Given this schema, we can more explicitly recognize that the *shoot at* type demonstrates a close affinity not only with the corresponding transitive construction but also with the other three types of verb phrases.

(23) Structure: [NP<sub>1</sub> V AT NP<sub>2</sub>]

NP<sub>1</sub>=coded as a subject

NP<sub>2</sub>=coded as an oblique object headed by the preposition *at*

Semantics: NP<sub>1</sub> ACTS ON NP<sub>2</sub>; *i.e.*

NP<sub>1</sub>=animate agent, NP<sub>2</sub>=target

NP<sub>1</sub> intentionally acts so as to let NP<sub>1</sub> act on NP<sub>2</sub>

Primary Pragmatic Function: focusing of process

The last schema is for the *throw O at* type. Different from all schemata presented above, this schema contains structural and semantic properties of the direct object NP. What goes toward a target in this type is the direct object NP.

(24) Structure: [NP<sub>1</sub> V NP<sub>2</sub> AT NP<sub>3</sub>]

NP<sub>1</sub>=coded as a subject

NP<sub>2</sub>=coded as a direct object

NP<sub>3</sub>=coded as an oblique object headed by the preposition *at*

Semantics: NP<sub>1</sub> ACTS ON NP<sub>2</sub> TO MOVE TOWARD NP<sub>3</sub>; *i.e.*

NP<sub>1</sub>=human agent, NP<sub>2</sub>=theme, NP<sub>3</sub>=target

NP<sub>1</sub> acts on NP<sub>2</sub> so as to let NP<sub>2</sub> be at the target NP<sub>3</sub>

Primary Pragmatic Function: focusing of target

We can now identify the schema for the *run at* type as a prototypical schema for all the *look at*, *run at*, *shoot at*, and *throw O at* types. The reasons are (i) that there is no metaphorically extended material in the schema for the *run at* type, whereas the schemata for the *look at* and *shoot at* types include metaphorically extended elements, and (ii) that the primary pragmatic function is to focus a target, and (iii) that the structural schema of the *run at* type is [NP<sub>1</sub> V AT NP<sub>2</sub>]. These properties are all reflected in the *run at* type, whilst the other types lack one or two properties mentioned above. Thus, the *run at* type is prototypical among the *look at*, *run at*, *shoot at*, and *throw O at* types.

## 5 Conclusion

In this paper we have discovered various intriguing similarities and dissimilarities in Transitivity, the formats of LCSs, and the schemata for the *look at*, *run at*, *shoot at*, and *throw O at* types, which have not been fully explored in the literature.

### Notes

- (1) Henceforth, we represent the string *throw something at* as *throw O at* for brevity.
- (2) The idea that something goes toward a target in the *look at* type is also assumed in Gruber (1967) and Ikegami (1975:397). Insufficiencies of this idea is suggested by Goldberg (1995:233).
- (3) See Goldberg (1995), Kageyama (1996), Kurosaki (1996, 1997), and Levin (1993) for the conative construction and further references.
- (4) Some might wonder if *the bird* in the sentence *the bird flew at the screen* volitionally flew. It is true that the degree of volitionality of *the bird* is quite lower to, say, that of *Nomo* in (5d). Nonetheless, the comparison of the sentence above with the sentence *the bird flew toward the screen* makes you understand that *the bird* in the former more volitionally flew than *the bird* in

the latter.

The target use of the preposition *at* more often than not implies that the subject NP does an action with hostility, especially in the case of an animate target. This fact also lends some support to the higher volitionality of the subject in the sentence *the bird flew at the screen*.

- (5) This implies the abolishment of a syntactic process called reanalysis which is assumed in the framework of generative grammar. It might be the case that the prepositional passivization is sensitive to an LCS, but the simple passivization is sensitive to a syntactic structure.
- (6) Our schemata are reminiscent of Shibatani's (1996) schema-based approach.

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