

Preverbal Nominals and Telicity in Persian Complex Predicates

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1 Introduction

- Much research has been carried out on identifying the contributions of each component of the complex predicate.
- In Persian, the following generalizations have been proposed:
 - Nonverbal element contributes the core or substantive meaning of the predicate
 - Light Verb determines *situation type* – it distinguishes between events and states
 - There is debate on the contribution to argument structure:
 - Light Verb determines causation and agentivity
e.g., Megerdooomian 2002, Folli, Harley and Karimi 2005
 - Verbal Noun determines agentivity and argument structure
e.g., Karimi-Doostan 2005, Vahedi-Langrudi 1996
 - Light Verb contributes some aspectual features such as duration and punctuality □(1) or inception **Error! Reference source not found.**(2):

(1)	<u>PROLONGED</u>		<u>ITERATIVE/SUDDEN</u>	
	næfæs=keshidæn	‘breathe’	næfæs=zædæn	‘pant’
	dæst=keshidæn	‘caress’	dæst=zædæn	‘touch’

(2)	be=gerye=oftad	to=crying=fell	‘began crying’
	dærd=gereft	pain=caught	‘started hurting’

- Telicity Aspect has not been investigated as often

Karimi-Doostan 1997: Telicity is determined by the light verb alone; the NV has no Aspect Tier (but see Karimi-Doostan 2003 where the verbal noun seems to provide the main aspectual information).

Folli, Harley and Karimi 2005: Telicity is determined by the NV alone.

Megerdooomian 2002b: Aspect derived compositionally by contribution of *all* parts of complex predicates, based on underlying (decomposed) structure.

2 Telicity and Lexical Aspect

2.1 Some terminology first...

- *Telicity* = notion of completion or reaching the boundary of an event. It signals delimitedness in time or a specified endpoint.
- Three levels of aspect: (cf. Smith 1991, Rothstein to appear)
 - *Lexical aspect* = inherent aspectual properties of the verb (also known as *Aktionsart*)
 - *Situation aspect* = verb phrase aspect (also known as *inner aspect* or *telicity aspect*)
→ conveyed by the verb and its arguments
 - *Viewpoint aspect* = higher level aspectual features, such as imperfective and perfective (also known as *outer aspect*).
→ aspectual modifications that can be made to the basic predicates, by the addition of various aspectual operators or morphological affixes
- Aspect is compositionally determined (Dowty 1981, Krifka 1992, Tenny 1992, Verkuyl 1993, Rothstein 2004).

- A specified quantity on the direct object delimits (or measures out) the event.¹

- | | | |
|--------|---|----------|
| (3) a. | John ate for an hour. | [atelic] |
| b. | John ate <u>apples/pizza</u> for an hour. | [atelic] |
| c. | John ate <u>the apple/a slice of pizza</u> in ten minutes. | [telic] |

¹ Issues remain with Accomplishments such as *push the cart*, *drive the car* (atelic) and Semelfactives such as *knock*, *punch* (instantaneous and telic in general but can also be iterative and atelic).

- A goal with a specific endpoint or a measured path delimits the event.

- (4) a. John **ran** for an hour. [atelic]
 b. John **ran a mile/his usual route** in an hour. [telic]
 c. John **ran to the store** in half an hour. [telic]

Telicity cannot be characterized in terms of the verb class; it is the property of the whole verb phrase
 ⇒ The verb contributes to the telic/atelic state of the VP (constrains the constructions) but does not fully determine it.

2.2 Staging the problem...

- Complex predicates [NV + LV] are actually equivalent to a simple (heavy) verb:

baz=kærdæn open=make ≈ 'open' (causative)

baz=shodæn open=become ≈ 'open' (inchoative)

- When we study the aspect of the complex predicate, we are actually investigating the aspect of the verb alone (i.e., lexical aspect or Aktionsart).
- But when we are studying Telicity (or Situation Aspect), we are looking at the contributions of all VP components.

- Simple verb *doydæn* ('to run') is lexically atelic, but can become telic with the addition of a Goal.

- (5) a. no^wzær *ye saæte / saæt-ha tu park **doyd**
 Nozar one hour/ hour-PL in park ran.3SG
 'Nozar ran in the park *in an hour / for hours.'
- b. no^wzær ye saæte / *saæt-ha ta park **doyd**
 this plane one hour/ hour-PL to park ran.3SG
 'Nozar ran to the park in an hour / *for hours.'

- Complex predicate *pærvaz kærðæn* ('to fly') is lexically atelic, but can become telic with the addition of a Goal.

- (6) a. pærvænde-gan *ye saæte / saæt-ha **pærvaz=kærd-ænd**
 bird-PL one hour/ hour-PL flight = did.3PL
 'The birds flew *in an hour / for hours.'
- b. in hævapeyma ye saæte / *saæt-ha *be tehran* **pærvaz=kærd**
 this plane one hour/ hour-PL to Tehran flight = did.3SG
 'This plane flew to Tehran in an hour / *for hours.'

PROPOSAL

- CP aspect cannot be characterized in terms of the light verb alone or of the preverbal element alone

⇒ determined compositionally by contribution of all components

- Not all CPs have the same underlying structure

3 Previous Accounts of CP Aspect

- 3.1 **Karimi-Doostan 1997:** Telicity is determined by the light verb alone; the NV has no Aspect Tier

Stative LV	Dynamic LV	
	Transition LV	Initiatory LV
dashtæn 'have'	xordæn 'collide'	zædæn 'hit'
	yaftæn 'find'	dadæn 'give'
	shodæn 'become'	bæxshidæn 'offer'
	amædæn 'come'	aværdæn 'bring'
	gereftæn 'catch'	keshidæn 'pull'
	ræftæn 'go'	bordæn 'take'
	didæn 'see'	gozashtæn 'put'
	kærdæn 'do'	kærdæn 'do, make'

Dynamic LVs (i.e., non-stative) fall into two aspectual classes

1. *Transition LVs*: appear in telic VPs referring to events in which a patient argument is affected or undergoes a change of state.
2. *Initiatory LVs*: may allow LVCs with atelic readings. They usually appear in clauses referring to events in which an entity initiates an action.

Issues (discussed in Megerdooomian 2002b)

- Transition LVs that can give rise to unbounded or atelic predicates
færib=xordæn ‘deceit collide = be deceived’
 (vs. *shekæst=xordæn* ‘be defeated’ [telic])
shekænje=didæn ‘torture see = be tortured’
- Initiatory LVs with PP preverbs can only be in bounded or telic predicates; with *for*-adverbial these can only be interpreted as a repetition of the event
be=yad=ovordæn ‘to memory bring = to recall’
be=hush=ovordæn ‘to consciousness bring = to make conscious’

3.2 Folli, Harley and Karimi 2005: Telicity is determined by the NV alone.

- Telicity is determined by whether or not the NV component denotes a definite endpoint or a result state.

Telic CP	Atelic CP
PP + LV <i>be donya amædæn</i> to world come ‘be born’ <i>be atæsh keshidæn</i> to fire pull ‘set on fire’	N + LV <i>dæst xordæn</i> hand collide ‘get touched’ <i>kotæk xordæn</i> beating collide ‘be beaten’ <i>dad zædæn</i> scream hit ‘to yell’ <i>dæst dadæn</i> hand give ‘shake hand’ <i>dæst ændaxtæn</i> hand throw ‘mock’
Particle + LV <i>kenar amædæn</i> side come ‘get along’ <i>dær gozæshæn</i> away pass ‘pass away’	
Adj + LV <i>deraz keshidæn</i> long pull ‘take a nap’	
Eventive N + LV <i>shekæst xordæn</i> defeat collide ‘be defeated’ <i>shekæst dadæn</i> defeat give ‘defeat’	

Locatum verbs

Verbs like *oil, grease, paint, powder, harness, saddle, hook...*

Formed with *zædæn* ‘hit’ in Persian

→ The NVs in (7) are both Thing Nouns but (7a) is telic while (7b) is atelic (cf. Megerdooomian 2002b)

- (7) a. *lale dær ærze dæh dæqiqe / *saæt-ha æsb-o æfsar=zæd*
 Laleh in ten minute / hour-PL horse-OM harness=hit.3SG
 ‘Laleh harnessed the horse in ten minutes / *for hours.’
- b. *lale dær ærze dæh dæqiqe/saæt-ha zænjir-e dochærxæ-ro ro^wqæn=zæd*
 Laleh in ten minute / hour-PL chain-EZ bicycle-OM oil=hit.3SG
 ‘Laleh oiled the bicycle chain in ten minutes / for hours.’

Harley (1998): For denominal verbs in English, if the base noun is a spatially bounded thing, then the event denoted by the verb will also be bounded.

- (8) a. The baby drooled *in an hour / for an hour.
 b. The mare foaled in an hour / *for an hour.

(9) *Locatum verbs*:²

- a. John blindfolded the hostage in a flash / *for a minute.
 b. John oiled the pots in an hour / for an hour.

FHK (2005): In *Locatum verbs*, the nominal NV’s boundedness properties determine if the complex predicate is telic or atelic.

- (i) *æfsar* ‘harness’, *chæshmband* ‘blindfold’, *qælade* ‘collar’, *dæstbænd* ‘handcuff’, *puzebænd* ‘muzzle’, *pabænd* ‘shackle’, *mohr* ‘stamp’ → Telic Aspect
 (ii) *roqæn* ‘oil’, *ræng* ‘paint’, *pudr* ‘powder’, *hæna* ‘henna’, *morækæb* ‘ink’, *vaks* ‘wax’, *lak* ‘nailpolish’, *næmæk* ‘salt’, *chashni* ‘spice’ → Atelic Aspect

Issues

If the CP aspect is determined solely by the NV, then...

- How is the aspect of the heavy verb determined if there is no NV component in it?

² If the root noun is unbounded, the aspect may be either bounded or unbounded.

- Why do we have distinct transitivity alternations? What determines the choice of these LVs?

- (10) a. *shekæst dadæn* vs. *shekæst xordæn*
 defeat give defeat collide
 ‘defeat’ ‘be defeated’
- b. *kotæk zædæn* vs. *kotæk xordæn*
 beating hit beating collide
 ‘beat’ ‘be beaten’

- How come the same nominal NV can give rise to distinct aspectual readings with different Light Verbs?

- (11) *dærd keshidæn* [atelic] vs. *dærd gereftæn* [telic]
 pain pull pain catch
 ‘hurt’ (as in ‘I hurt a lot’) ‘hurt’ (as in ‘my back hurt suddenly’)

• **Instrument verbs**

How come the boundedness of the NV plays no role for semelfactives?

All the following verbs with *zædæn* are instantaneous events which can be atelic (but iterative) whether the NV is bounded or not.

- (12) *shane zædæn* comb hit ‘comb’
jaru zædæn broom hit ‘sweep’
mesvak zædæn toothbrush hit ‘brush (teeth)’
kotæk zædæn beating hit ‘beat’
paru zædæn oar hit ‘row’
pa zædæn foot hit ‘paddle’
bal zædæn wing hit ‘flap (wings)’

⇒ FHK (2005) does not address the aspect of instrument verbs

Summary

- Light verb or NV alone can’t determine final aspect of the complex predicate

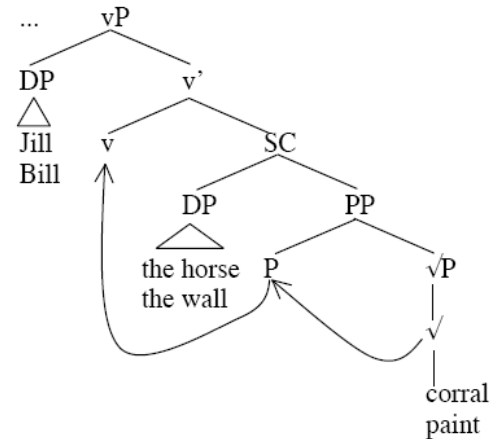
• *Questions:*

- Can we get CP aspect compositionally?
- Why are Instrument verbs different?

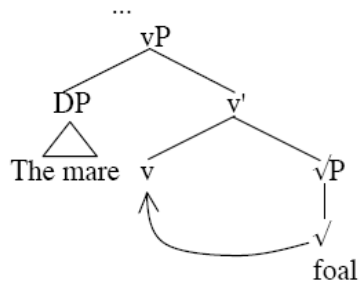
4 Analysis

4.1 Compositional verb aspect

Harley (2001,2003): In the decomposed verbal structure proposed by Hale and Keyser (2001), the roots’ properties that bear on measuring out play a role in determining Aktionsart of the verb (ex. *dance* vs. *saddle*, *clear*, *shelve*) → Syntactic and semantic properties of the non-verbal constituent are responsible for the internal event structure of the final composed predicate.



Location and Locatum verbs

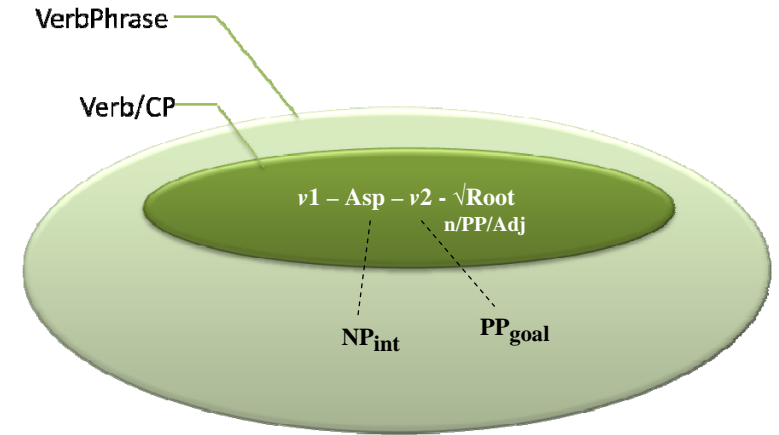


Unergative denominals:
The mare foaled. / The baby drooled.

- There is a parallel between the determination of Verb Phrase aspect by the verb's arguments and the determination of Complex Predicate Aktionsart by its subparts.

	Verb Phrase Telic Aspect	Complex Predicate "Telic" Aspect
✓	Verb represents a bounded event <i>run, laugh, drive</i> [Atelic] <i>catch, die, arrive</i> [Telic]	Light Verb represents boundedness <i>keshidæn</i> 'pull', <i>zædæn</i> 'hit' <i>gereftæn</i> 'catch', <i>xordæn</i> 'collide'
✓	Bounded internal argument <i>John ate pizza</i> [Atelic] <i>John ate a slice of pizza</i> [Telic]	Bounded nominal NV <i>John zænjir-o rowqæn zæd</i> [Atelic] John chain-OM oil hit <i>John mard-o dæstbænd zæd</i> [Telic] John man-OM handcuff hit
✓	Goal PP <i>John drove into the corner</i> [Telic] <i>John ran to the store</i> [Telic]	Goal PP with <i>be</i> 'to' <i>be donya amæd</i> [Telic] to world came (=be born) <i>be gerye oftad</i> [Telic] to crying fell (=began crying)
✓	Resultative (English) <i>John hammered the nail flat</i>	Result state <i>piræn-et xoshk shod</i> [Telic] shirt-your dry became

CP aspect is determined compositionally by contribution of all components (parallel to VP aspect): inherent characteristic of the light verb + boundedness or measuring out properties of the NV.



PROBLEM: Instrument Verbs

Bounded noun NV does not affect the aspect of the verb/complex predicate

4.2 Instrument verbs and boundedness

- In both English and Persian, the boundedness of the nominal root does not affect the final aspect (which can be telic or atelic).

(13) Sue raked the leaves in an hour / for an hour.

(14) a. nima dær ærze nim saæt / saæt-ha xunæ-ro **jaru**=zæd
Nima in half hour / hour-PL house-OM broom=hit.3SG
'Nima swept the house in half an hour / for hours.'

b. ma dær ærze nim saæt / saæt-ha mu-ha-sh-o **shune**=zæd-im
we in half hour / hour-PL hair-PL-3SG-OM comb=hit-1PL
'We combed her hair in half an hour / for hours.'

- The presence of number implicature on the bounded nominal NV of Locatum and Instrument verbs has different interpretations

Locatum verb → not very good

- (15) a. ?* lale æsb-o **ye æfsar** zæd o rah=oftad-im
 Laleh horse-OM one harness hit.3SG and way=fell-1PL
 ‘≈ ?*Laleh gave the horse a harness and we took off.’
 b. ?* zenduni-ro **do-ta chæshmbænd** zæd-ænd
 prisoner-OM two-CL blindfold hit.3PL
 ‘≈ ?*They gave the prisoner two blindfolds.’

Note: (20b) can only mean that they put two blindfolds on the prisoner, but it would then be better to say it with an indirect object *be zenduni* ‘to the prisoner’

- be zenduni **do-ta chæshmbænd** zæd-ænd
 to prisoner two-CL blindfold hit.3PL
 ‘≈ ? They put two blindfolds on the prisoner.’

Instrument verb → number modifies the whole event, not the noun

- (16) mæn bayæd xunæ-ro **ye jaru** be-zæn-æm bæd mi-am
 I must house-OM one broom SUBJ-hit.1SG then IMP-come-1SG
 ‘I have to give the house a sweep then I’ll come.’
 (i.e., ‘I have to sweep the house first then I’ll come’)
 (17) in shæxs tu un gærma **chahar-hezar-ta pæn-j-hezar ta chækosh** zæd
 this person in that heat four-thousand-CL five-thousand-CL hammer hit
 ‘≈ This person hammered four thousand, five thousand times in that heat.’

BUT at the VP level, instrument PPs do not delimit or measure out the event either → They are adjuncts to the VP not arguments of the verb.

- (18) John hit the nail **with a hammer** for hours.
 (19) Nima qali-ro saæt-ha **ba paru** zæd
 Nima carpet-CL hour-PL with paddle hit
 ‘Nima hit the carpet with a/the paddle for hours.’

In parallel to the VP, I suggest that

- (i) Instrument NV includes a null P head
 (ii) the NV in an Instrument verb is not a Theme, Goal/Location, or Locatum, but an Instrument ⇒ They are conflated higher in the CP structure (at v1?).

Note that if the NV of *zædaen* is an instrument of the verbal head, we should be able to use an overt instrument PP in the sentence (at the VP level):³

- (20) a. Nyusha ba mobayl-esh be-hesh telefon zæd
 Nyusha with mobile-3SG to-3SG telephone hit-3SG
 ‘Nyusha phoned him with her cell phone.’
 b. mi-tun-i ba ængosht-a-t sut be-zæn-i?
 IMP-can-2SG with finger-PL-2SG whistle SUBJ-hit-2SG
 ‘Can you whistle with your fingers?’
 c. paru-m oftad tu ab o mæjbur shod-æm
 oar-1SG fell-3SG in water and forced became-1SG
 ba dæst-a-m paru be-zæn-æm
 with hand-PL-1SG oar SUBJ-hit-1SG
 ‘My oar fell in the water and I was forced to row with my hands.’
 d. un mo^wqe ba ye sim-e koloft shælaq mi-zæd-ænd
 that time with a wire-EZ thick whip IMP-hit-3PL
 ‘At that time, they would whip (us) with a thick wire.’
 e. ruz-i do-bar ba putin be ængosht-eman lægæd mi-zæd
 day-IND two-CL with boot to finger-1PL koel IMP-hit-3SG
 ‘He kicked us with boots twice a day.’
 f. baba dændun-a-sh-o hæmishe ba mesvak-e yeki-mun
 dad tooth-PL-3SG-OM always with toothbrush-EZ one-1PL
 mesvak mi-zæn-e
 toothbrush IMP-hit-3SG
 ‘My dad always brushes his teeth with one of our toothbrushes.’
 (Lit. Dad always brushes his teeth with the toothbrush of one of us.)

³ Examples found from online corpora using Google search.

Nominal NV and CP Aspect

Whether nominal NV gives rise to a bounded or unbounded CP event depends on

1. the internal structure of the nominal
 - a. Thing NV: *æfsar* ‘harness’ vs. *ro^wqæn* ‘oil’
 - b. Eventive NV without result state: *færib* ‘deceit, fraud’
 - c. Eventive NV with result state: *shekast* ‘defeat’
2. the NV’s relation to the verb (in terms of structure)

5 Conclusion

- Showed that neither LV nor NV alone can determine Complex Predicate aspect
⇒ CP aspect is derived compositionally from contributions of both NV and LV, in parallel to the compositional formation of VP aspect
- Provided analysis for distinct properties of locatum and instrument verbs in Persian (and English) → they have different structures
 - Instrument NV is underlyingly a PP with null head prior to conflation
 - Instrument NV is attached higher in the CP structure (parallel to Instrumental PPs in the VP) and therefore it does not affect CP aspect.
- Correlation of NV and CP aspect:

Nonverbal element		Complex Predicate Aspect
Goal PP		bounded
Particle		bounded
State (adjective)		bounded
Nominal occupying an “argument” position to <i>v</i>	Bounded thing	bounded (<i>harness</i>)
	Unbounded thing	unbounded (<i>oil</i>)
	Eventive with result state	bounded (<i>defeat</i>)
	Eventive without result state	unbounded (<i>deceit</i>)
Nominal occupying a “non-argument” position to <i>v</i>		unbounded/semelfactive (e.g., Instrumentals)

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