Aspect and ability in two Hindi/Urdu constructions

Numbered examples

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1 Introduction

- Aspectual complex predicates with *le* (lit: 'take')

(1) a. *Anjum gaaṛii calaa le-tii (hai).*
Anjum car drive take-IMPF.F.SG (be.PRS.SG)
'Anjum will/does drive the car.' (dispositional)

b. *Anjum-ne gaaṛii calaa l-ii.*
Anjum-ERG car drive take-PFV.F.SG
'Anjum drove the car.' (deliberately, completely)

- Ability attributions with *sak*

(2) a. *Anjum gaaṛii calaa sak-tii thii (lekin us-ne gaaṛii kabhii nahĩĩ chalaa-yii.)*
Anjum car drive can-IMPF.F.SG be.PST.F.SG (but 3SG.ERG car sometime NEG drive-PFV.F.SG.
'Anjum could drive the car (but she never drove the car).'

b. *Anjum gaaṛii calaa sak-ii (#lekin us-ne gaaṛii nahĩĩ calaa-yii)*
Anjum car drive can-PFV.F.SG (#but 3SG-ERG car NEG drive-PFV.F.SG
'Anjum was able to drive the car (#but she didn't drive the car).'

2 Dispositional complex predicates

Based on (di)transitives	Based on intransitives
le ('take')	*aa* ('come')
de ('give')	*jaa* ('go')
ḍaal ('put')	*paṛ* ('fall')
maar ('hit')	*mar* ('die')
nikaal ('pry out')	*nikal* ('emerge')

Table 1: Some common Hindi/Urdu light verbs (Butt 1993)

- Sample light verb constructions:

(3) a. *Anjum-ne gaanaa gaa ḍaal-aa*
Anjum-ERG song sing put-PFV.M.SG
'Anjum sang a song (deliberately, forcefully).'

b. *Anjum gaanaa gaa paṛ-ii*
Anjum song sang fall-PFV.F.SG
'Anjum fell to singing (spontaneously, involuntarily).'

- *Le* as an aspectual auxiliary/culminating perfective:

(4) a. *Maayaa-ne biskaṭ khaa-yaa lekin use puuraa nahĩĩ khaa-yaa*
Maya-ERG cookie eat-PFV.M.SG but it.ACC whole NEG eat-PFV.M.SG
'Maya ate the cookie but did not finish it.'

b. *Maayaa-ne biskaṭ khaa li-yaa, #par use puuraa nahĩĩ khaa-yaa.*
Maya-ERG cookie eat take-PFV.M.SG, #but it.ACC whole NEG eat-PFV.M.SG
'Maya ate the cookie, #but did not finish it.'

- Aspect contrast with simple predicates:

(i) *Anjum gaaṛii calaa-tii hai/thii*
Anjum car drive-IMPF.F.SG be.PRS.SG/be.PST.F.SG
'Anjum drives/used to drive the car.'

(ii) *Anjum-ne gaaṛii calaa-yii (hai).*
Anjum-ERG car drive-PFV.F.SG (be.PRS.SG)
'Anjum drove (has driven) the car.'

- English existential/dispositional generic

(5) My pet toad will eat flies.
The toad can and does eat flies (under the right circumstances), but not necessarily in all eating situations, and not necessarily to the exclusion of other foods

- Negative expectation contexts for the dispositional complex predicate:

(6) a. *acchaa, vo hindi bhii bol-tii hai?*
yes, she Hindi also speak-IMPF.F.SG be.PRS.SG
'Oh, she also speaks Hindi?'

b. *hãã hãã, bol le-tii hai. kyũ nahĩĩ bol-e?*
yes yes, speak take-IMPF.F.SG be.PRS.SG. why NOT speak-SUBJ
'Yes, she (can and) does speak Hindi. Why not?'

(7) In response to being asked why one never sees Anjum driving:

climate change-kii vajah-se vo aaj-kal gaaṛii nahĩĩ calaa rahii
climate change-GEN reason-INST 3.SG today-tomorrow car NEG drive PROG.F.SG
hai, lekin bilkul vo gaaṛii calaa le-tii hai.
be.PRS.SG, but certainly 3.SG car drive take-IMPF.F.SG be.PRS.SG

'Due to climate change, she's not driving the car (regularly) these days, but she certainly (can and) does drive the car.'

- Comparing the dispositional complex predicate to standard ability:

(8) a. *Anjum gaaṛii calaa sak-tii hai, lekin cala-tii hii nahĩĩ*
Anjum car drive can-IMPF.F.SG be.PRS.SG, but drive-IMPF.F.SG only NEG
'Anjum can (has the ability) to drive the car, but (she) doesn't drive.'

b. *Anjum gaaṛii calaa le-tii hai, #/??lekin cala-tii hii nahĩĩ*
Anjim car drive take-IMPF.F.SG be.PRS.SG, #/??but drive-IMPF.F.SG only NEG
'Anjum (can and) does drive the car, #/??but (she) doesn't drive.'

(9) a. *agar raastaa pakkaa ho, Anjum saikal calaa le-gii*
if road correct be, Anjum cycle drive take-FUT.F.SG
'If the road is good, Anjum will ride a bicycle.'

b. *??agar raastaa pakkaa ho, Anjum saikal calaa sak-egi*
if road correct be, Anjum cycle drive can-FUT.F.SG
'If the road is good, Anjum will be able to ride a bicycle.'

- Sinhala: unmarked volitive vs. marked involitive (not specified for accidentality; Inman 1993)

(iii) *laməya kooppe binda, eet hitəla nemeyi*
child.NOM cup break.PST but intend.PTCPL NEG
'The child broke the cup, but not intentionally.' VOL

(iv) *laməya atiŋ kooppe biňduna*
child ERG cup break.INV.PST
'The child (accidentally) broke the cup.' INVOL

- Unexpected dispositional readings for the Sinhala involitive form (± volition)

(10) *Mahatuŋ atiŋ mee kæmə hoňdəṭə hædenəwa*
Mahatun ERG this food well make.INV.PRS
'Mahatun makes this food well (as it turns out/unexpectedly).' (Inman 1993)

- Compare (10) to Hindi/Urdu dispositional *le* and English implicative *happen (to)*:

(11) *Mahatun ye khaanaa acchaa banaa le-taa hai.*
Mahatun this food well make take-IMPF.M.SG be.PRS.SG
'Mahatun (can and) does make this food well.'

(12) Mahatun happens to make this dish well, #but he doesn't make it well.

- Happenstantial modality (modality of non-necessity):[1]

(13) $[\![\text{INV}]\!]^{w,f,g} := \lambda\phi_{st}.\phi(w)\,\&\,\neg\forall w' \in \text{Best}_{\text{ep,nm}}(w)[\phi(w')]$

(10) $\sim$ *Mahatun makes this food well and there is some world maximally compatible with the speaker's expectations in which he does not do so.*

[1] Inman argues that the speaker-oriented epistemic flavour derives the dispositional interpretation, while an agentive, goal-oriented interpretation captures the accidentality typically associated with involitivity (i.e., ϕ occurs and it is compatible with the goals of the sentential subject that ϕ does not occur).

- Happenstantial modality for the dispositional predicate:

(14) $[\![\text{le}]\!]^w := \lambda\phi.\phi(w)\,\&\,\neg\forall w' \in \text{Best}_{\text{ep,nm}}(w)[\phi(w')]$

(1a) *Anjum gaaṛii calaa le-tii (hai).*
Anjum car drive take-IMPF.F.SG (be.PRS.SG)
'(As it happens), Anjum (can and) does drive the car.'
Anjum drives the car and there is some world compatible with (my) expectations in which she does not drive the car.

(15) Mahatun didn't happen to make this dish well
→ *He didn't make it well (and it was possible that he would).*
(Not available without prosodic emphasis: *He made the dish well and it was certain that he would do so.*)

(16) **Preliminary proposal.** Given a one-place predicate P and an agent x, $le(P)(x)$
a. *Presupposes:* A prior choice $A(x)$ for x is necessary and sufficient to bring about $P(x)$
b. *Asserts:* that x realized (made choice) $A(x)$

3 Ability and implicativity

- Actuality entailments again:

(17) *Yusuf havaii-jahaaz uṛaa sak-taa thaa, lekin us-ne havaii-jahaaz kabhii nahĩĩ uṛaa-yaa.*
Yusuf air-ship fly can-IMPF.M PST, but 3SG-ERG air-ship sometime NEG fly-PFV.M
'Yusuf could fly planes, but he never flew a plane.'

(18) *Yusuf havaii-jahaaz uṛaa sak-aa, #lekin us-ne havaii-jahaaz nahĩĩ uṛaa-yaa.*
Yusuf air-ship fly can-PFV.M, #but 3SG-ERG air-ship NEG fly-PFV.M
'Yusuf could fly the plane, #but he didn't fly the plane.'

- Standard semantics for ability/perfective:

(19) $[\![\text{CAN}]\!]^{w,\text{circ}} := \lambda P\lambda e.\exists w' \in \text{circ}(w)[P(e)(w')]$

(20) $[\![\text{PFV}]\!] := \lambda w\lambda t\lambda P.\exists e[\tau(e) \subseteq t\,\&\,P(e)(w)]$

(21) Yusuf could-PFV fly the plane $\sim \exists e[\tau(e) \subseteq t\{\prec t^*\}\,\&\,\exists w \in \text{circ}(w^*)[\text{fly-plane}(Y)(e)(w)]]$
The relevant past interval contains an event of Yusuf flying a plane in some circumstantially accessible world

- Comparison with *manage*

(22) (18) ≡ Yusuf managed to fly the plane, #but he didn't fly the plane

(23) a. Anjum managed / did not manage to ride a bike.
b. *Anjum saikal (nahĩĩ) calaa sak-ii*
Anjum cycle (NEG) drive can-PFV.F.SG
'Anjum was (not) able to ride a bike.'
$\rightsquigarrow$ *cycling was unexpected? abnormal? difficult?*

(24) Yusuf manages to fly a plane, #but he never flies a plane.

(25) French *réussir* ('succeed', 'manage')

Yusuf { *réussissait* / *a réussi* } *à piloter un avion, #mais il n'a pas piloté d'avion.*

Yusuf { managed-IMPF / managed-PFV } to fly a plane, #but he NEG-has NEG fly-PFV the-plane.

'Yusuf { used to manage / managed } to fly a plane, #but he did not fly a plane.'

- Implicative verbs: semantic template

(26) a. Ria dared to open the door. → *Ria opened the door*

b. Ria did not dare to open the door. → *Ria did not open the door*

⇝ *Opened the door required Ria to act bravely*

(27) a. Ria dared to open the door. → *Ria acted bravely*

b. Ria did not dare to open the door. → *Ria did not act bravely*

- *Manage* and causal dependence:

(28) a. *Context.* In the United States, being 18 years old is a legally necessary and legally sufficient condition for male citizens to register for selective service (you are prohibited from registering before you are 18, and obligated to register thereafter). Juniors in U.S. high schools are typically between 16 and 18 years old; suppose that the information that Khalid is a high school junior is shared in the utterance context, but that while the speaker is aware of his precise age, the addressee may not be.

b. ?Khalid managed to register for selective service.
(cannot convey that he was or became 18 at reference time)

- Informal definitions for causal relations:

(29) Let $D = \langle \Sigma, V \rangle$ be a directed acyclic graph with Σ a finite set of propositional variables which can be valued from $\{u, 0, 1\}$ and V a relation on Σ ($\langle X, Y \rangle \in V$ indicates that the value of X causally influences the value of Y). Assume D is paired with a function Θ_D which assigns to each $X \in \Sigma$ a pair $\langle Z_X, \theta_X \rangle$ where Z_X is the (possibly empty) set of X's immediate ancestors and $\theta_X : \{0,1\}^{|Z_X|} \to \{0,1\}$ specifies how the value of node X depends on the values assigned to its ancestors. Assume that s is a background situation (a three-way valuation of Σ) and $\langle C, c \rangle$ and $\langle E, e \rangle$ are *facts* (variable-value pairs with $C, E \in \Sigma$ and $c, e \in \{0, 1\}$).

a. $\langle C, c \rangle$ is **causally necessary** for $\langle E, e \rangle$ iff there is no causally consistent path from s to $\langle E, e \rangle$ which does not set $\langle C, c \rangle$

b. $\langle C, c \rangle$ is **causally sufficient** for $\langle E, e \rangle$ iff adding $\langle C, c \rangle$ to s guarantees $\langle E, e \rangle$ as a causal consequence.

- Semantics for manage (using causal premise semantics; Kaufmann 2013, Nadathur 2023b,c)

$$[\![manage(P)(x)]\!]^{w,t} := \lambda e.(\iota A.\forall w' \in \text{caus}(w,t)[\text{in}(t,w',A(x)) \leftrightarrow \text{in}(t,w',P(x))])(e)(w)$$

- Choosy semantics for ability:

(30) A statement of the form *x is able to / can P*

a. *Presupposes:* the existence of some action $A(x)$ which is necessary/sufficient to bring about $P(x)$

b. *Asserts:* A is in x's *choice set* (doing A is a live option for x)

(31) $\forall w, t, x[A(x) \in \text{ch}(x, w, t) \rightarrow \exists w' \in \text{circ}(w)[\text{in}(t, w', A(x))]]$
Actions in x's choice set at $\langle w, t\rangle$ are possibilities for x at $\langle w, t\rangle$

- Ability as a hypothetical guarantee (cf. Mandelkern et al 2017):

$$[\![\text{ABLE}(x)(P)]\!]^{w,t} := (\iota A.\forall w' \in \text{caus}(w, t)[\text{in}(t, w', A(x)) \leftrightarrow \text{in}(t, w', P(x))])(x) \in \text{ch}(x, w, t)$$

Agent x is able to P at $\langle w, t\rangle$ if x can choose the final cause of $P(x)$

- Ability to actuality: dynamic capacity statives under aspectual modification

(32) Juno is loud/fast/tactful.
Juno is capable of actions which are loud/fast/tactful.

(33) a. *Juno était rapide.*
Juno was.IMPF fast
'Juno was (generally) fast.'

b. *Juno a été rapide.*
Juno was.PFV fast
'Juno was (did something) fast.'

(34) Juno was fast enough to win the race
Juno was able to win the race, in view of her capacity for speed

(35) a. *Juno était assez rapide pour gagner la course*
Juno was-IMPF enough fast for win the race
'Juno was fast enough to win the race.'

b. *Juno a été assez rapide pour gagner la course*
Juno was-PFV enough fast for win the race
'Juno ran fast enough to win the race.' → *She won*

(36) *Yusuf gaaṛii calaa sak-aa*
Yusuf car drive can-PFV.M.SG
'Yusuf managed to drive the car.'

a. *Presupposes:* Some action by Yusuf was the final cause of car-driving
$\exists A : \forall w' \in \text{caus}(w, t)[\text{in}(t, w', A(Y)) \leftrightarrow \text{in}(t, w', \text{drive-car}(Y))]$

b. *Base assertion:* The proximate cause was in Yusuf's (local) choice set (stative)
$A(x) \in \text{ch}(Y, w, t)$

c. *With coercion + PFV:* Yusuf chose (acted on) the proximate cause
$\text{in}(t, w, A(Y))$

d. **Entailed result:** Yusuf drove the car
$\text{in}(t, w, \text{drive-car}(Y))$

4 Implicative structure for the dispositional complex predicate

- Implicative semantics for *le*

(37) $[\![\text{le}(P)(x)]\!]^{w,t} :=$
$\lambda e.(\iota A_{vt} \in \text{ch}(x,w,t).\forall w' \in \text{caus}(w,t)[\text{in}(t,w',A(x)) \leftrightarrow \text{in}(t,w',P(x))])(e)(w)$

- Composition with habitual imperfective:

(38) $[\![\text{HAB}]\!] := \lambda w\lambda t\lambda R_{it}\lambda P_{vt}.\forall t'[t' \subset t \,\&\, R(w)(t')][\text{in}(t',w,P)]$

(39) $[\![\text{IMPF}(\text{HAB}(\text{le}(P)(x)))]\!] =$
$\lambda w\lambda t.\exists t'[t' \supset t \,\&\, \forall t''[t'' \subset t' \,\&\, \exists!A \in \text{ch}(x,w,t).\forall w' \in \text{caus}(w,t'')$
$[\text{in}(t'',w',A(x)) \leftrightarrow \text{in}(t'',w',P(x))]][\text{in}(t'',w,A(x))]$
All situations in which x has a choice which is necessary/sufficient for P are ones in which x acts on this choice

(40) *agar raastaa pakkaa ho, Anjum saikal calaa le-tii hai*
if road correct be, Anjum cycle drive take-IMPF.F.SG be.PRS.SG
'If the road is good, Anjum rides a bicycle.'
Whenever the road is good, Anjum has a choice which is necessary/sufficient for her to ride a bike, and she makes this choice.

- Composition with episodic perfective:

(41) $\exists e[\tau(e) \subseteq t \,\&\, (\iota A_{vt} \in \text{ch}(x,w,t).\forall w' \in \text{caus}(w,t)$
$[\text{in}(t,w',A(x)) \leftrightarrow \text{in}(t,w',P(x))])(w)(e)]$
Agent x had a choice which was causally necessary and sufficient for realizing P within reference time and acted on that choice

(1b) *Anjum-ne gaaṛii calaa l-ii*
Anjum-ERG car drive take-PFV.F.SG
'Anjum drove a car.' (Anjum chose to drive)
Anjum had a choice which was necessary/sufficient for her to drive, and she made this choice (so she drove)

- **Problem 1:** Non-equivalence?

(42) a. Anjum managed to open the door.
b. *Anjum darvaazaa khol sak-ii*
Anjum door open can-PFV.F.SG
'Anjum was able to open the door.'
c. *Anjum-ne darvaazaa khol li-yaa.*
Anjum-ERG door open take-PFV.M.SG
'Anjum opened the door.' (Anjum chose to open the door)

- **Problem 2:** Negation?

(43) a. **us-ne gaanaa nahĩĩ gaa li-yaa*
*3SG-ERG song NEG sing take-PFV.M.SG
Intended: 'He didn't (choose to) sing a song (completely)'

b. **vo gaanaa nahĩĩ gaa le-taa*
*3SG-ERG song NEG sing take-IMPF.M.SG
Intended: 'He doesn't/won't (choose to) sing songs.'

- **Problem 3:** culmination contrast?

(4) a. *Maayaa-ne biskaṭ khaa-yaa lekin use puuraa nahĩĩ khaa-yaa*
Maya-ERG cookie eat-PFV.M.SG but it.ACC whole NEG eat-PFV.M.SG
'Maya ate the cookie but did not finish it.'

b. *Maayaa-ne biskaṭ khaa li-yaa, #par use puuraa nahĩĩ khaa-yaa.*
Maya-ERG cookie eat take-PFV.M.SG, #but it.ACC whole NEG eat-PFV.M.SG
'Maya ate the cookie, #but did not finish it.'

- Light verbs are not clause-embedding (scrambling evidence; Butt 1993):

(44) a. *Anjum-ne [likh li-yaa] patr.*
Anjum-ERG [write take-PFV.M.SG] letter
'Anjum wrote a letter.'

b. **Anjum-ne likh patr li-yaa.*
*Anjum-ERG write letter take-PFV.M.SG
'Anjum wrote a letter.'

- *Le* + activity ∼ deliberate completion

(45) *Anjum-ne Taj Mahal-mein naac li-yaa*
Anjum-ERG taj mahal-IN dance take-PFV.M.SG
'Anjum (deliberately) danced in the the Taj Mahal.' (R. Bhatt, p.c.)

Appendix: Coercing implicativity with *enough*

Three components derive lexical implicative inferences:
If actuality entailments are analytically implicative, these components have to emerge compositionally (ABLE + PFV ≡ *manage*)

1. *Presupposition:* The existence of an unresolved jointly necessary and sufficient condition for the complement
2. *Assertion:* Determines the truth value of the necessary/sufficient condition
3. *Modal flavour:* Necessity and sufficiency are causal, precipitating the complement

Enough/assez constructions license implicative-style but aspect-sensitive inferences:

(35) a. *Juno était assez rapide pour gagner la course*
Juno was-IMPF enough fast for win the race
'Juno was fast enough to win the race.'

b. *Juno a été assez rapide pour gagner la course*
Juno was-PFV enough fast for win the race
'Juno ran fast enough to win the race.' → *She won*

- They can be paraphrased as *specific abilities*:
  (34) ∼ *Juno is able to win the race, in view of her capacity for speed*
- This attribution breaks into (variable) compositional components:
  - a gradable adjective (*fast*)
  - a (modalized) comparative operator (*enough*)
  - an infinitival complement/goal (*to win the race*)

Semantic analysis: *enough* compares an actual degree allocation of its subject to the allocation the subject has in worlds where the complement is realized

(46) a. **Target paraphrase** (cf. von Stechow et al 2004, Heim 2001):
Juno's actual speed is as great as it needs to be in order for her to win the race

b. $[\![enough]\!]^{f,g} :=$
$\lambda w \lambda P \lambda A \lambda x.\{d : A(d)(x)(w)\} \subseteq \{d : \forall w' \in \text{Best}_{f,g}(w)[P(x)(w') \rightarrow A(d)(x)(w')]\}$

c. $[\![\text{Juno is fast enough to win the race}]\!]^{w^*,\text{circ}}$
$= \{d : \text{speed}(J)(w^*) \geq d\} \supseteq \{d : \forall w \in \text{circ}(w^*)[\text{win}(J)(w) \rightarrow \text{speed}(J)(w) \geq d]\}$

d. **Result:** Juno's actual (maximum) speed is greater than the maximum speed she has in the world where she is slowest but still wins the race

- **Main takeaway:** The *enough* semantics builds in a *necessity condition*

(47) Juno's actual speed $\geq d_n$, where d_n is the minimum required speed for Juno to win

$$\iota d_n : \forall w \in \text{circ}(w^*)[\text{speed}(J)(w) < d_n \rightarrow \neg\text{win}(J)(w)]$$

Like lexical implicatives:

1. *Enough* preds presuppose a necessity condition (min. degree of ADJ required the complement)

$$\iota d_n : \forall w \in \text{circ}(w^*)[\text{speed}(J)(w) < d_n \rightarrow \neg\text{win}(J)(w)]$$

2. *Enough* asserts that prerequisite is satisfied: subject actually has at least degree d_n of ADJ

$$\text{ADJ}(x)(w^*) \geq d_n$$

3. **But:** no sufficiency presupposition ✗ $\forall w \in \text{circ}(w^*)[\text{ADJ}(x)(w) \geq d_n \rightarrow P(x)(w)]$
4. **And:** *enough* constructions vary in modal flavour

(34) Juno was fast enough to win the race — *circumstantial*

(48) Ama was old enough to drink — *deontic*

This makes some of the right predictions:

- No implicative inferences with deontic *enough*

(49) *Ama a été assez grande pour boire de l'alcool, mais elle ne l'a jamais bu.*
Ama was-PFV enough old for drink of the-alcohol, but she NEG it-has never drink.PP
'Ama became old enough to drink alcohol, but she never drank it.'

- Negative circumstantial *enough* blocks complement realization:

  (50) Juno was not fast enough to win the race → *She did not win.*

- Absent sufficiency, no actuality entailment for (34) or (35a)
- But to explain the perfective entailment in (35b), it looks like we need PFV to introduce the missing sufficiency condition (*a priori* implausible)

Key observation: *enough* implicativity is sensitive to properties of the matrix adjective

- circumstantial *enough* with *static* adjectives lack actuality inferences:

  (51) Nima was tall enough to touch the branch, but he didn't even reach for it

  (*be tall* + PFV) is marked in French, no entailment)

- **Generalization:** *enough* implicativity requires circumstantial modality and a **dynamic** matrix adjective (attributable to an individual in view of their capacity for actions with a particular character)
  - Static and dynamic adjectives are causally differentiated: circumstantial modality limits attention to worlds where the complement is realized in a normal way
  - In these worlds, height is enabling but *not the proximate cause* of the complement
  - The race example is carefully chosen: performing speed (e.g., by running) is the *proximate cause* of race-winning (i.e., the final necessary and therefore sufficient cause)

Taking stock: dynamic *enough* claims

1. Dynamic, circumstantial *enough* presupposes necessity ...
   ... and *backgrounds* a contingent form of sufficiency: instantiating (manifesting) degree d_n of ADJ is causally sufficient for the complement

$$\forall w \in \text{caus}(w^*)[\text{INST}(\text{ADJ}(x)(w^*) \geq d_n) \rightarrow P(x)(w)]$$

2. *Enough* asserts satisfaction of the necessary prerequisite
3. Causal model flavour is embedded via the contextually-supplied sufficiency condition (operative with instantiation of the relevant property)

Upshot: Perfective marking does not introduce the key sufficiency relationship, but activates it by forcing instantiation of a dynamic capacity

(33a) *Juno était rapide.*
Juno was.IMPF fast
'Juno was (generally) fast.'

(33b) *Juno a été rapide.*
Juno was.PFV fast
'Juno was (did something) fast.'

Aspectual coercion theories (Moens & Steedman 1988, de Swart 1998, Bary 2009, a.o.) propose formal coercion operators, triggered by mismatch between input predicates and the selectional restrictions of grammatical aspect (or other operators):

- *Inchoative coercion* maps statives to eventive/quantized initiation points:

  (52) *Soudain, Anne a été triste.*
  Suddenly, Anne was-PFV sad
  'Suddenly, Anne became sad.'

- *Maximal coercion* returns maximal instantiations of statives (cessation inferences)

  (53) *Maria a été belle*
  Maria was-PFV beautiful
  'Maria was beautiful.' (but not anymore)

- **Dynamic capacity predicates are subject to a novel form of coercion** (Fernald 1999, Homer 2011/2021, Nadathur 2019/2023a,c): *instantiative/actualistic/evidential* coercion maps statives to eventives which provide evidence for the relevant capacity attribution