


# Affectedness in the Agent of SUBSTITUTE



*Min-Chun Hsiao and Siaw-Fong Chung*  
*Department of English, National Chengchi University*

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John substituted Bob in the second half.



$NP_{AGENT}$

the one who decides  
which entity to be used

$NP_{IN}$

the entity replacing others



$NP_{AGENT}$

$NP_{OUT}$

the entity being replaced



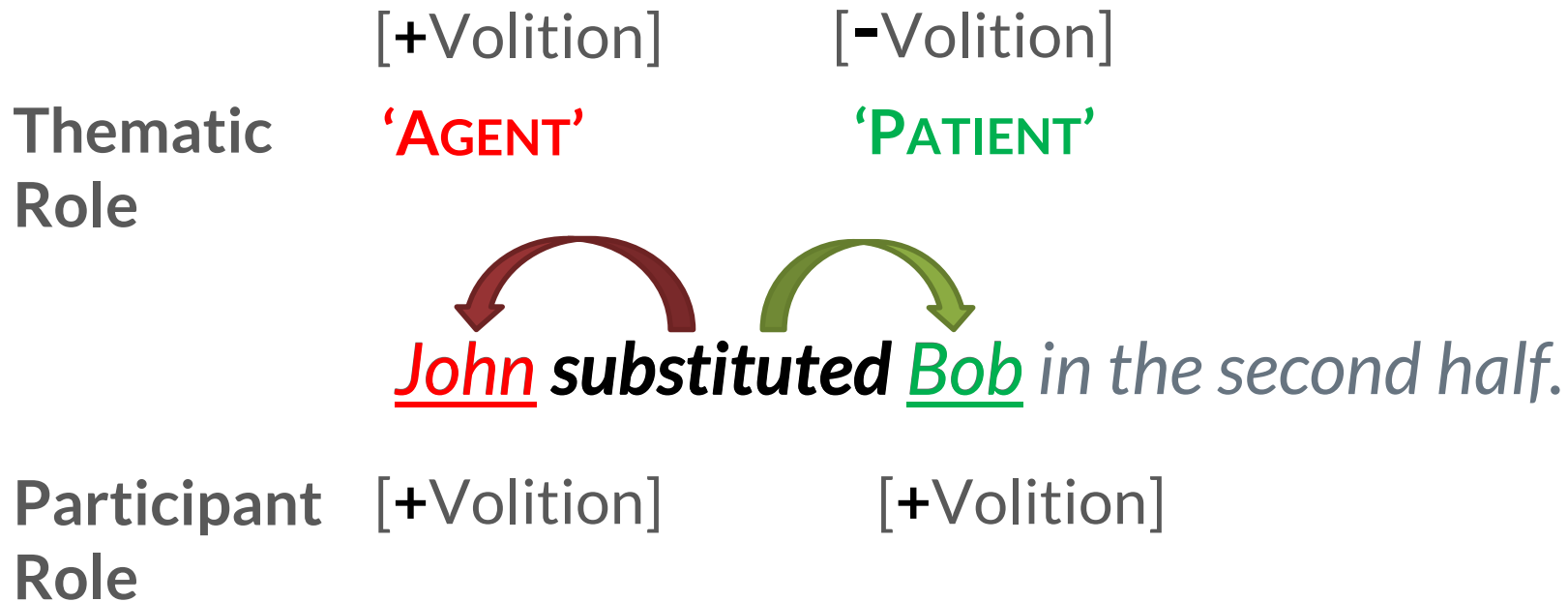
$NP_{IN}$

$NP_{OUT}$

What are the factors that divide the interpretation of *John* into the  $NP_{AGENT}$  and the  $NP_{IN}$ ?



# Distinction between ‘participant roles’ and ‘thematic roles’ (Van Valin & LaPolla, 1997: 113)



# Relational properties of 'Agent' and 'Patient'

(Næss, 2007: 40-42)

## ▷ Volitionality (VOL)

“The volitional involvement of a participant in an action”

## ▷ Instigation (INST)

An act where one participant “does something to” another

## ▷ Affectedness (AFF)

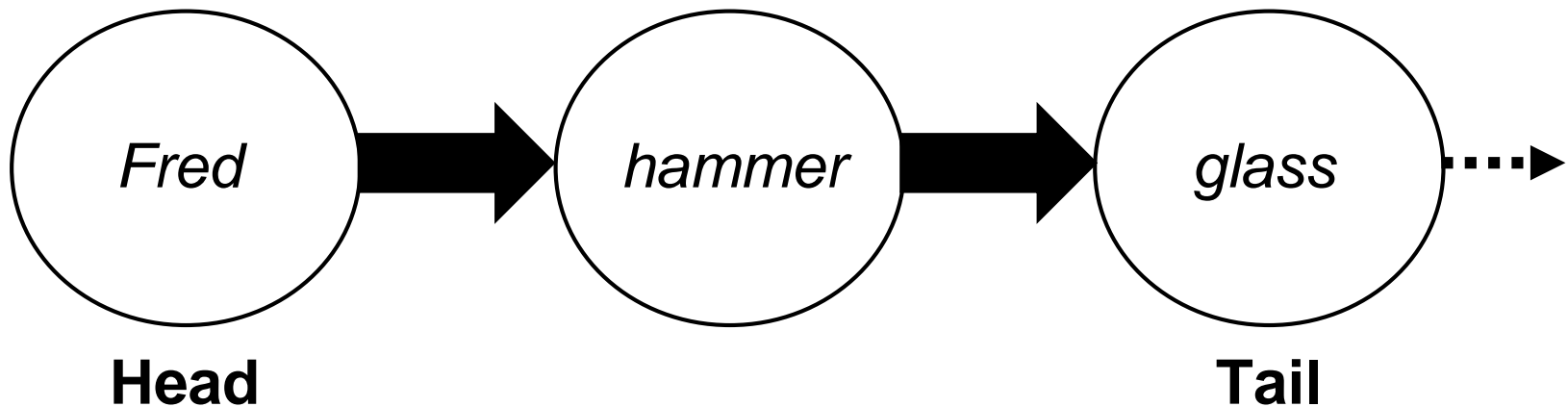
A patient “undergoes a change of state as a result of the event”

■ 'AGENT' [+VOL, +INST, -AFF]

■ 'PATIENT' [-VOL, -INST, +AFF]

# Action Chain Model

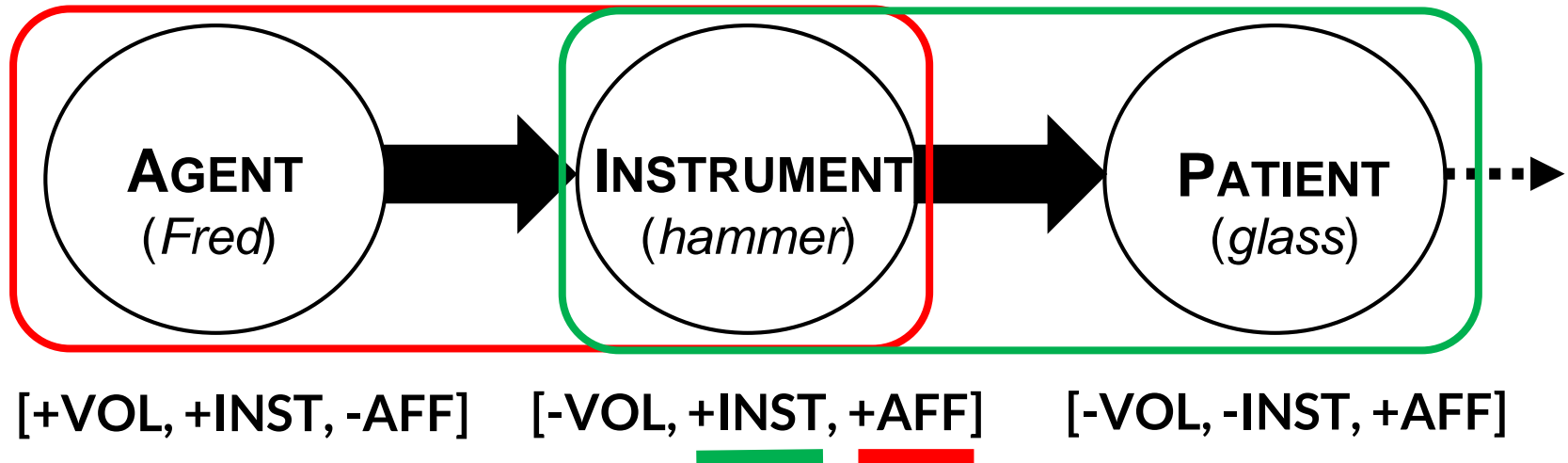
- ▷ Language is grounded in basic human experience (Langacker, 2008: 355; Croft, 2012).
  - Force-dynamic interaction between entities



*Fred* *broke* *the glass* *with the hammer*.

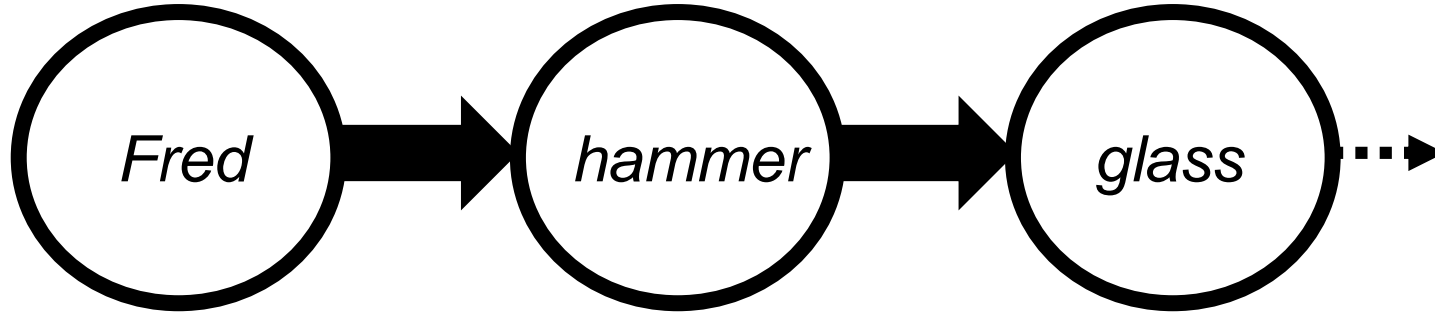
# Action Chain Model

Fred broke the glass with the hammer.

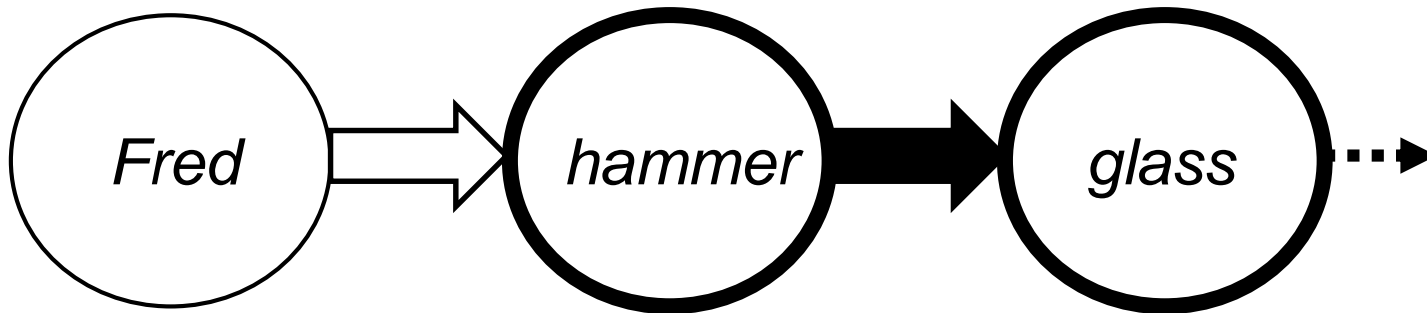


- ▷ 'AGENT' is basically unaffected (Langacker, 1991: 238; Kittila, 2002: 237)
- ▷ 'INSTRUMENT' is "a PATIENT and a CAUSER at the same time" (Næss, 2007: 99)

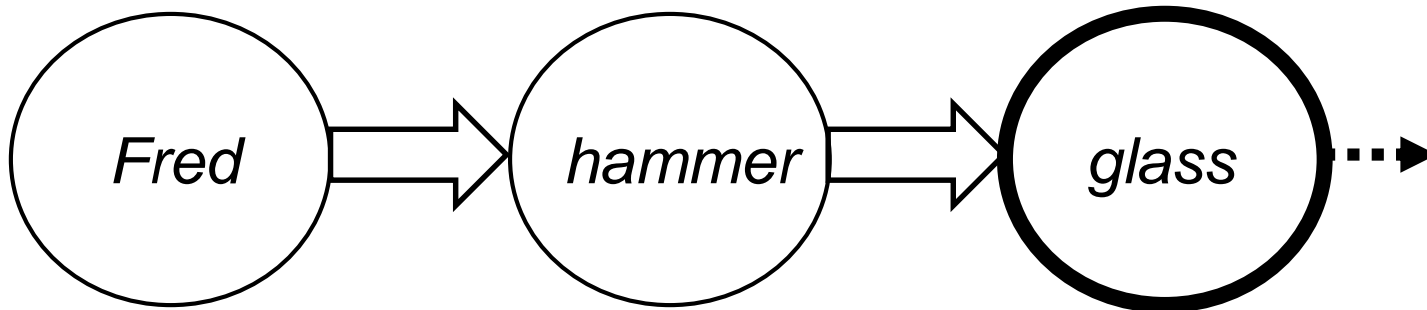
Fred broke the glass with the hammer.



The hammer broke the glass.



The glass broke.



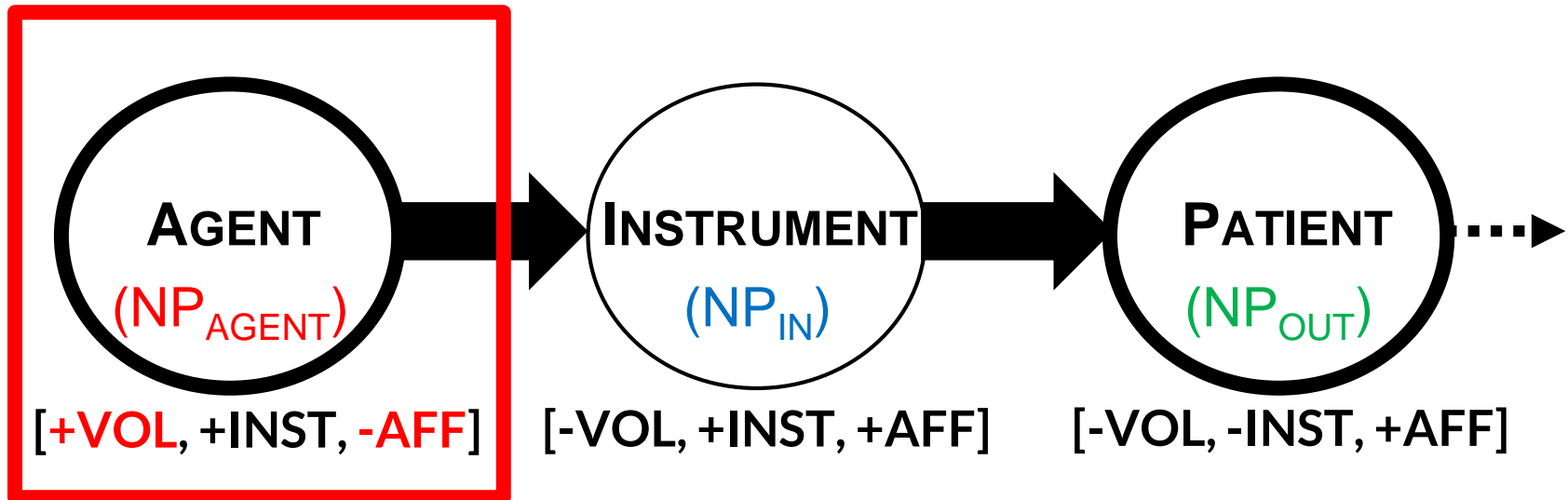
# Research Questions

- ▷ What are the factors that divide the interpretation of the subject of SUBSTITUTE into the  $NP_{AGENT}$  and the  $NP_{IN}$ ?
- ▷ How does the relational property, 'affectedness', impact the degree of agentivity?



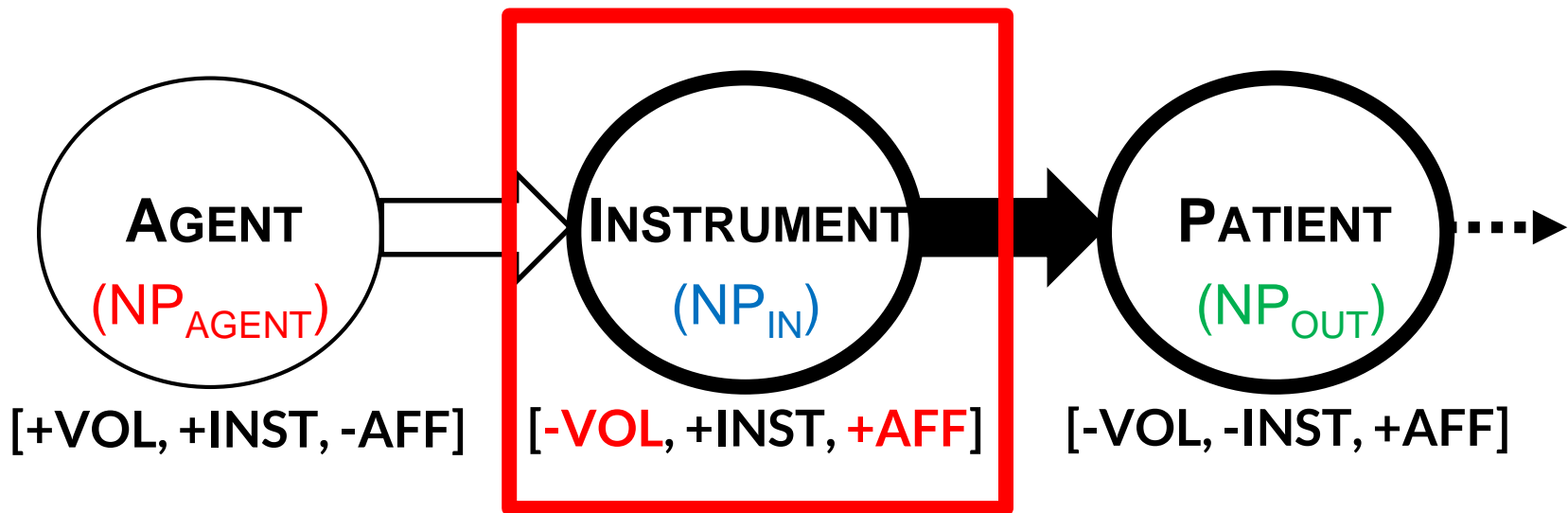
▷ **PROTOTYPICAL AGENT** [+VOL, +INST, -AFF]

[<sub>AGENT</sub> SOUTHAMPTON manager Ian Branfoot]  
substituted [<sub>OUT</sub> hardman Terry Hurlock] to save him  
from the red card. (CEP-10994)

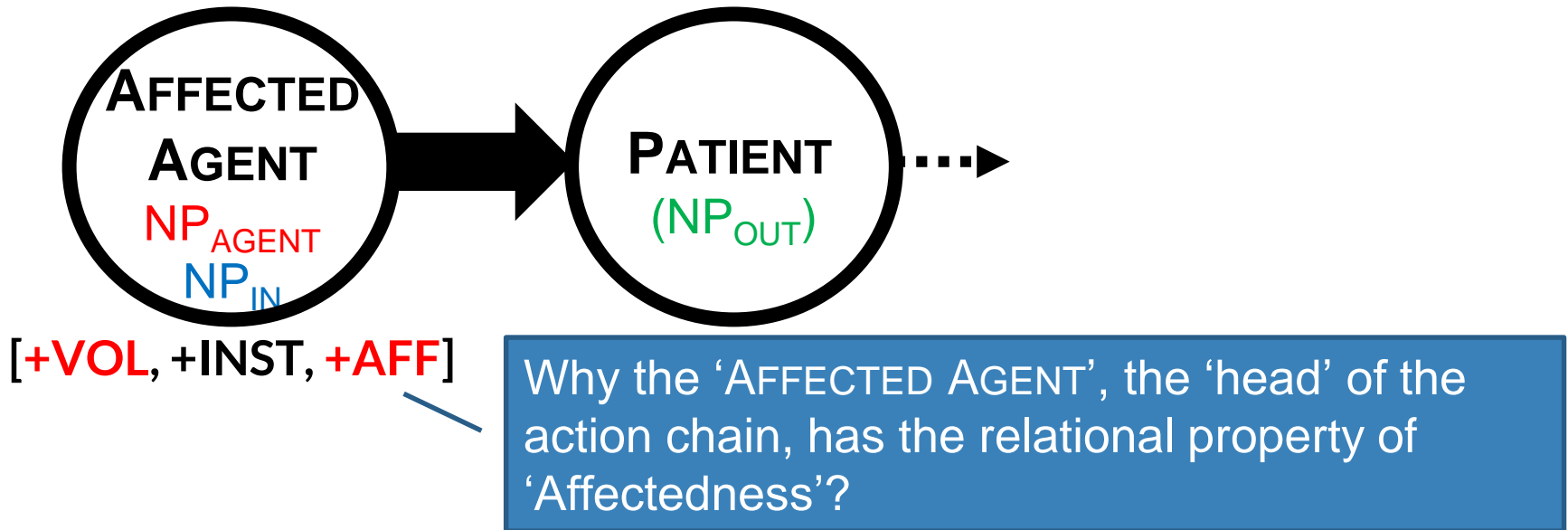


▷ **INSTRUMENT** [-VOL, +INST, +AFF]

*Not very, despite the fact that [<sub>IN</sub>gas] can substitute [<sub>OUT</sub>50-80% of diesel oil]. (ACR-3228)*



Okay, so we accept that [IN Councillor Tiffany] is now *substituting* [OUT Councillor Kurtz] and may now take her full part in the meeting. (KS1-173)

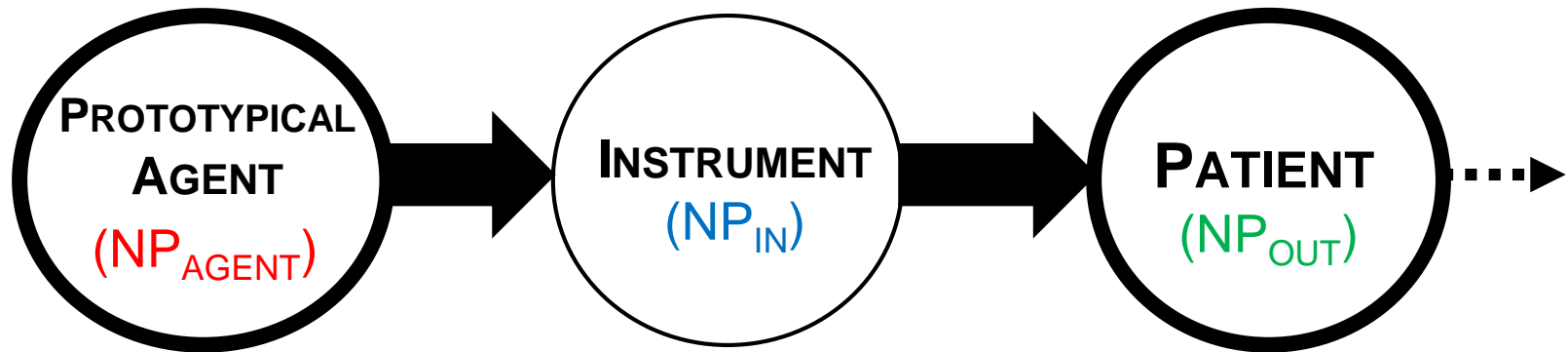


[IN Councillor Tiffany] is now *substituting* [OUT Councillor Kurtz].

[AGENT Councillor Tiffany] is now *substituting* [IN herself] [OUT for Councillor Kurtz].

▷ **PROTOTYPICAL AGENT** may not be compatible with the reflexive use

[<sub>AGENT</sub> SOUTHAMPTON manager Ian Branfoot] substituted [<sub>OUT</sub> *hardman Terry Hurlock*] to save him from the red card.



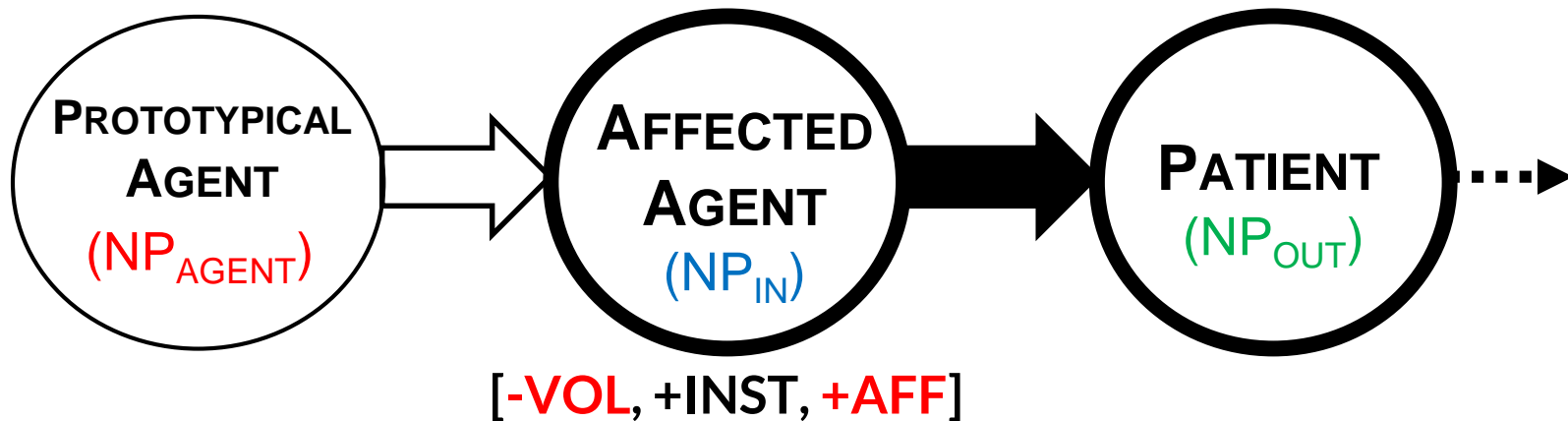
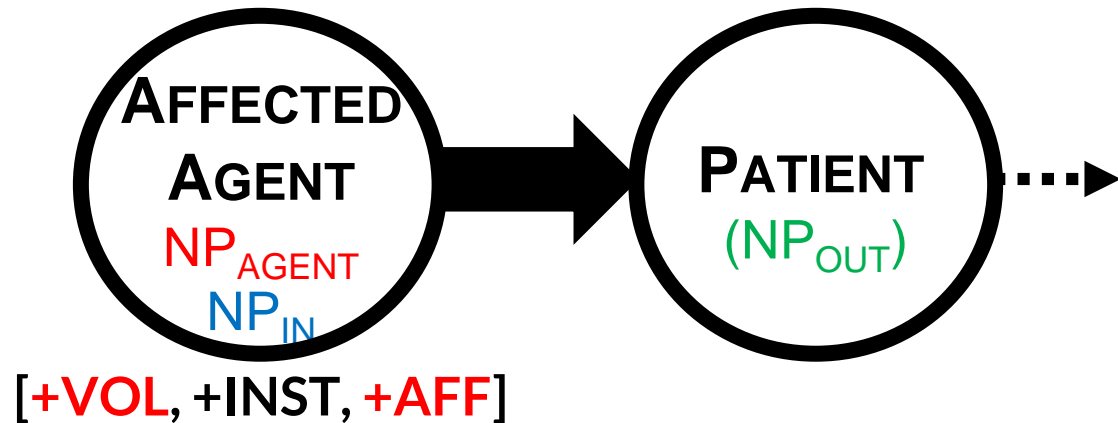
- A substitute player ( $NP_{IN}$ ) took the place of the  $NP_{OUT}$

? [<sub>AGENT</sub> SOUTHAMPTON manager Ian Branfoot] substituted [<sub>IN</sub> *himself*] [<sub>OUT</sub> *for hardman Terry Hurlock*] to save him from the red card.

- The *manager* is the  $NP_{IN}$  which took the place of the  $NP_{OUT}$

▷ **AFFECTED AGENT** [ $\pm$ **VOL**, +INST, +AFF]

Okay, so we accept that [<sub>IN</sub> Councillor Tiffany] is now substituting [<sub>OUT</sub> Councillor Kurtz] and may now take her full part in the meeting. (KS1-173)



# A continuum of volition

+ Volition



**PROTOTYPICAL AGENT** [+VOL, +INST, -AFF]

[AGENT SOUTHAMPTON manager Ian Branfoot] **substituted**  
[OUT hardman Terry Hurlock] to save him from the red card.



**AFFECTED AGENT** [±VOL, +INST, +AFF]

[IN Councillor Tiffany] is now **substituting** [OUT Councillor Kurtz] and may now take her full part in the meeting.



**INSTRUMENT** [-VOL, +INST, +AFF]

[IN Gas] can **substitute** [OUT 50–80% of diesel oil].

- Volition

# Observations

- ▷ Whether the 'AFFECTED AGENT' exercises its own volition is uncertain
  
- ▷ Two factors affecting 'Volitionality'
  - the nature of the NP (e.g., *manager* and *gas*)
  - the 'Affectedness' of the AGENT
  
- ▷ In contrast to the unaffected 'PROTOTYPICAL AGENT', the 'AFFECTED AGENT' may be less agentive

# Cross-linguistic data of Mandarin Chinese

## ▷ Corpus

- Corpus of Contemporary Taiwanese Mandarin (COCT)
  - **Written data:** around 280 million words
  - **Source:** books and newspapers

## ▷ Query term

- The possible counterpart of *substitute*: 替換(ti4huan4)



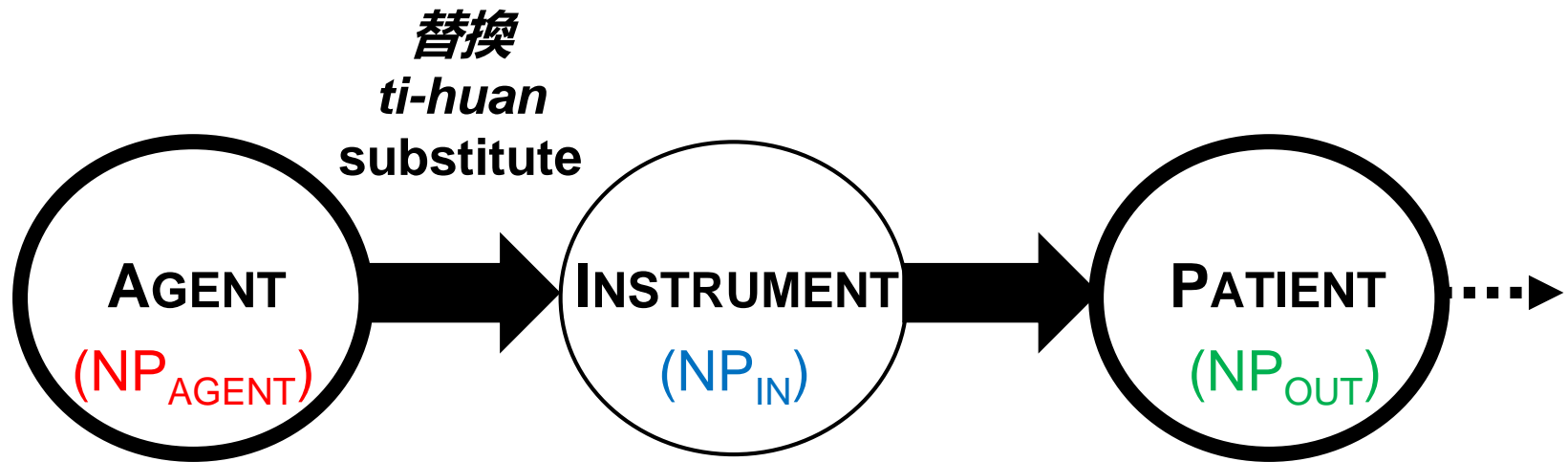
# PROTOTYPICAL AGENT [+VOL, +INST, -AFF]

[AGENT 他]	必須	有	補充	兵源
ta	bi-xu	you	bu-chong	bing-yuan
3sg	must	have	supplementary	soldier-source

替換	[OUT 前線	疲憊不堪	的	士兵]。
ti-huan	qian-xian	pi-bei-bu-kan	de	shi-bing
substitute	frontline	weary	DE	soldiers

- **Intended:** He must have the supplementary army to substitute the weary soldiers of the frontlines.

# PROTOTYPICAL AGENT [+VOL, +INST, -AFF]



[+VOL, +INST, -AFF]

他  
*ta*  
3sg

前線 疲憊不堪 的 士兵  
*qian-xian pi-bei-bu-kan de shi-bing*  
frontline weary DE soldiers

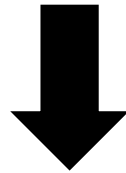
**Intended:** He must have the supplementary army to substitute the weary soldiers of the frontlines.

# Reflexive pronoun test

## ▷ PROTOTYPICAL AGENT

[AGENT 他] 替換 [OUT 前線 疲憊不堪的士兵]

[AGENT He] substituted [OUT the weary soldiers of the frontlines]



[IN 他] **自己**替換 [OUT 前線 疲憊不堪的士兵]

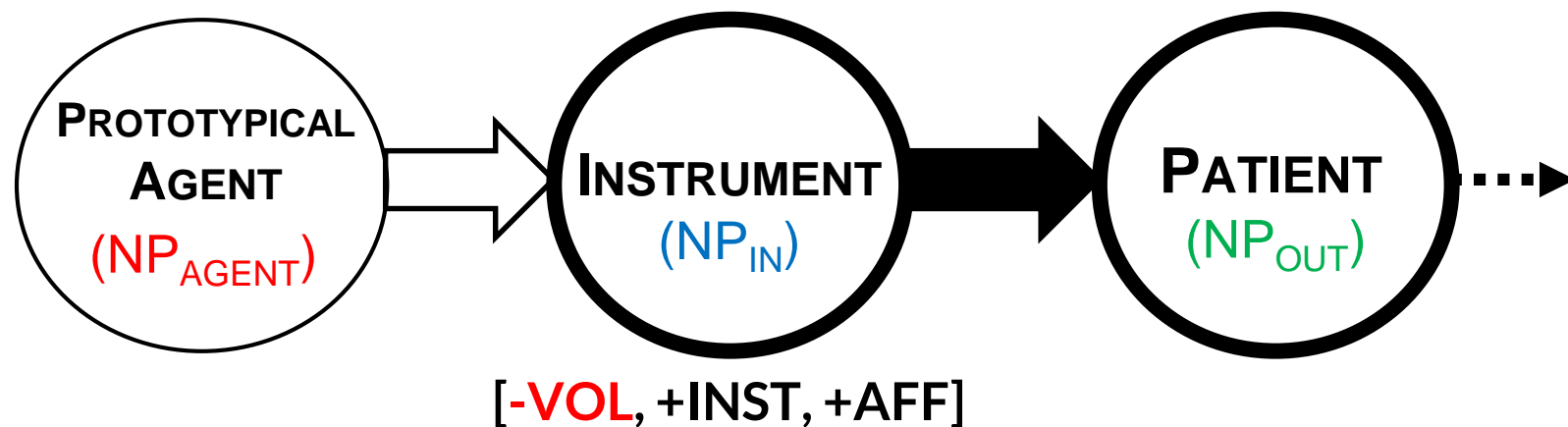
[AGENT He] substituted [IN himself] [OUT for the weary soldiers of the frontlines]

- PROTOTYPICAL AGENT is not compatible with the addition of the reflexive pronoun

# INSTRUMENT [-VOL, +INST, +AFF]

∅	用	[ <sub>IN</sub> 塑膠杯]	替換	[ <sub>OUT</sub> 玻璃杯]。
∅	yong	su-jiao-bei	ti-huan	bo-li-bei
∅	use	plastic cup	substitute	glass

- Intended: Use a plastic cup to substitute the glass.



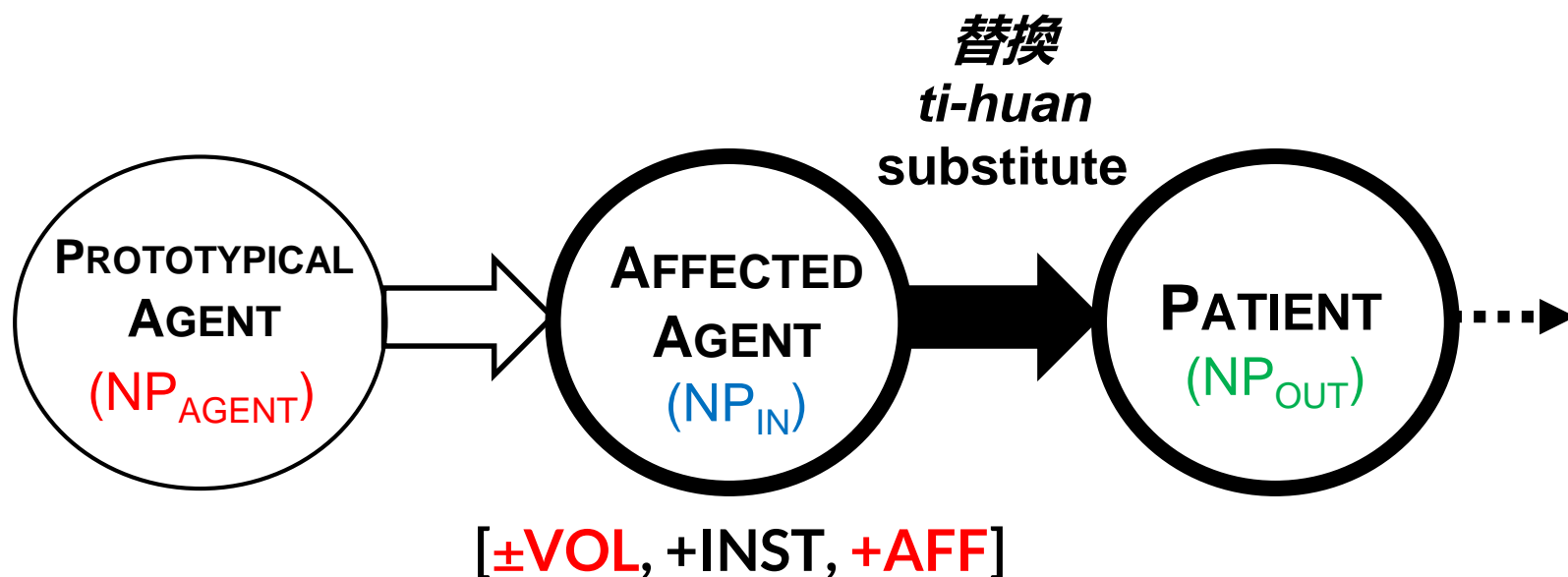
# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]

都城	大王	來	請	[ <sub>IN</sub> 老媽媽]
dou-cheng	da-wang	lai	qing	lao-ma-ma
capital-city	king	come	ask	old-mama

替換	[ <sub>OUT</sub> 他]	去	做	王。
ti-huan	ta	qu	zuo	wang
substitute	3sg	go	do	king

- **Intended:** The king of the capital asked the **old-mama** to substitute **him** as the king.

# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]



老媽媽  
*lao-ma-ma*  
old-mama

他  
*ta*  
3sg

- **Intended:** The king of the capital asked the *old-mama* to substitute *him* as the king.

# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]

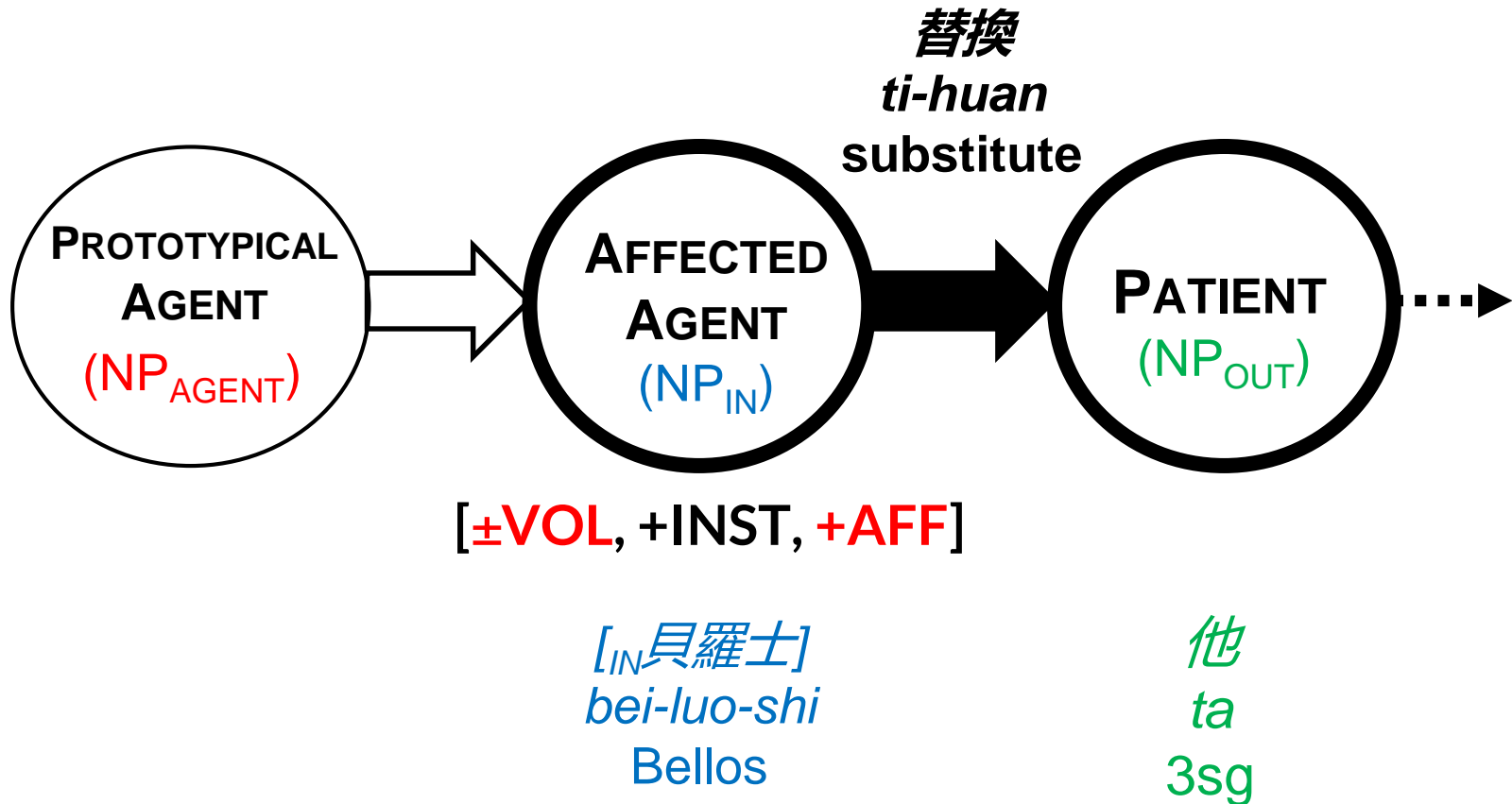
他	分配	夜間	守衛	的	工作,
ta	fen-pei	ye-jian	shou-wei	de	gong-zuo
3sg	assign	night	guardian	DE	work

安德斯	第一	班,	他	自己	午夜	班,
an-de-si	di-yi	ban	ta	zi-ji	wu-ye	ban
Anders	first_ORD	CL	3sg	self	midnight	CL

然後	由	[ <sub>IN</sub> 貝羅士]	來	替換	[ <sub>OUT</sub> 他]。
ran-hou	you	bei-luo-shi	lai	ti-huan	ta
then	from	Bellos	come	substitute	3sg

- **Intended:** He arranged the work of the watchmen. Anders was on the first shift, he was on the night shift, and then **Bellos** would substitute **him**.

# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]



- **Intended:** He arranged the work of the watchman. Anders was on the first shift, he was on the night shift, and then **Bellos** would substitute **him**.



# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]

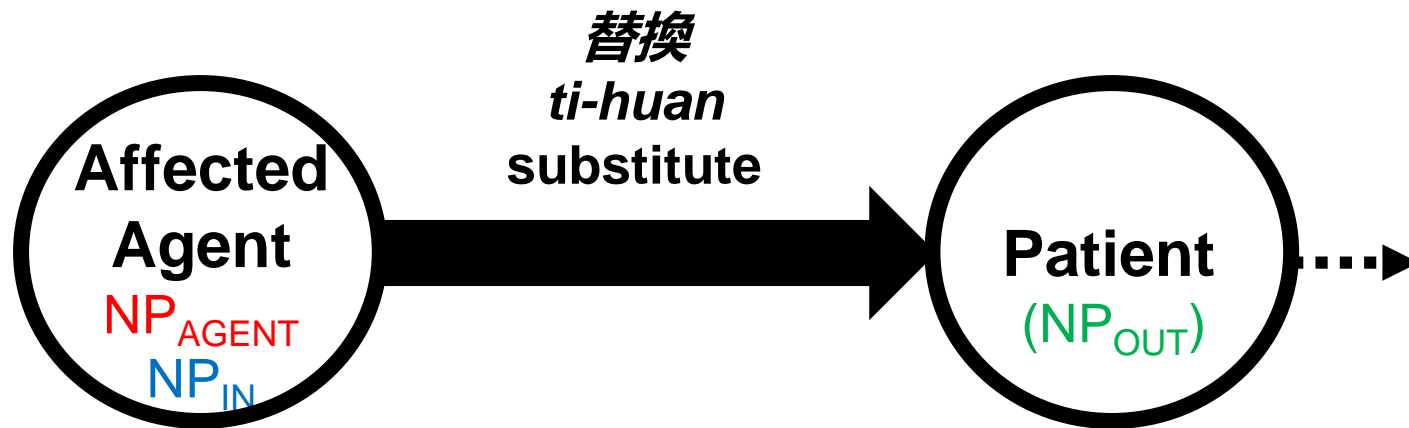
每隔	幾	小時	就	有	[ <sub>IN</sub> 一	個
mei-ge	ji	xiao-shi jiu	jiu	you	yi	ge
Every	few	hour	soon	have	one	CL

神清氣爽	的	僧侶	來	替換
shen-qing-qi-shuang	de	seng lu	lai	ti huan
refreshed	DE	monk	come	substitute

[ <sub>OUT</sub> 唱 到	筋疲力盡	的	那	個。
chang dao	jin-pi-li-jin	de	na	ge
sing to	exhausted	DE	that	CL

- **Intended:** Every few hours, there will be a refreshed monk to substitute the one who has sung exhaustedly.

# AFFECTED AGENT [ $\pm$ VOL, +INST, +AFF]



[ $\pm$ VOL, +INST, +AFF]

一個神清氣爽 的僧侶  
*yi ge shen-qing-qi-shuang de seng lu*  
one CL refreshed DE monk

唱 到 筋疲力盡 的 那 個  
*chang dao jin-pi-li-jin de na ge*  
sing to exhausted DE that CL

# A continuum of volition

+ Volition



**PROTOTYPICAL AGENT** [+VOL, +INST, -AFF]

[AGENT 他] 必須有補充兵源 替換 [OUT 前線 疲憊不堪的士兵]。  
*He substitute the weary soldiers of the frontlines*



**AFFECTED AGENT** [±VOL, +INST, +AFF]

由 [IN 貝羅士] 來 替換 [OUT 他]。  
*Bellos would substitute him*



**INSTRUMENT** [-VOL, +INST, +AFF]

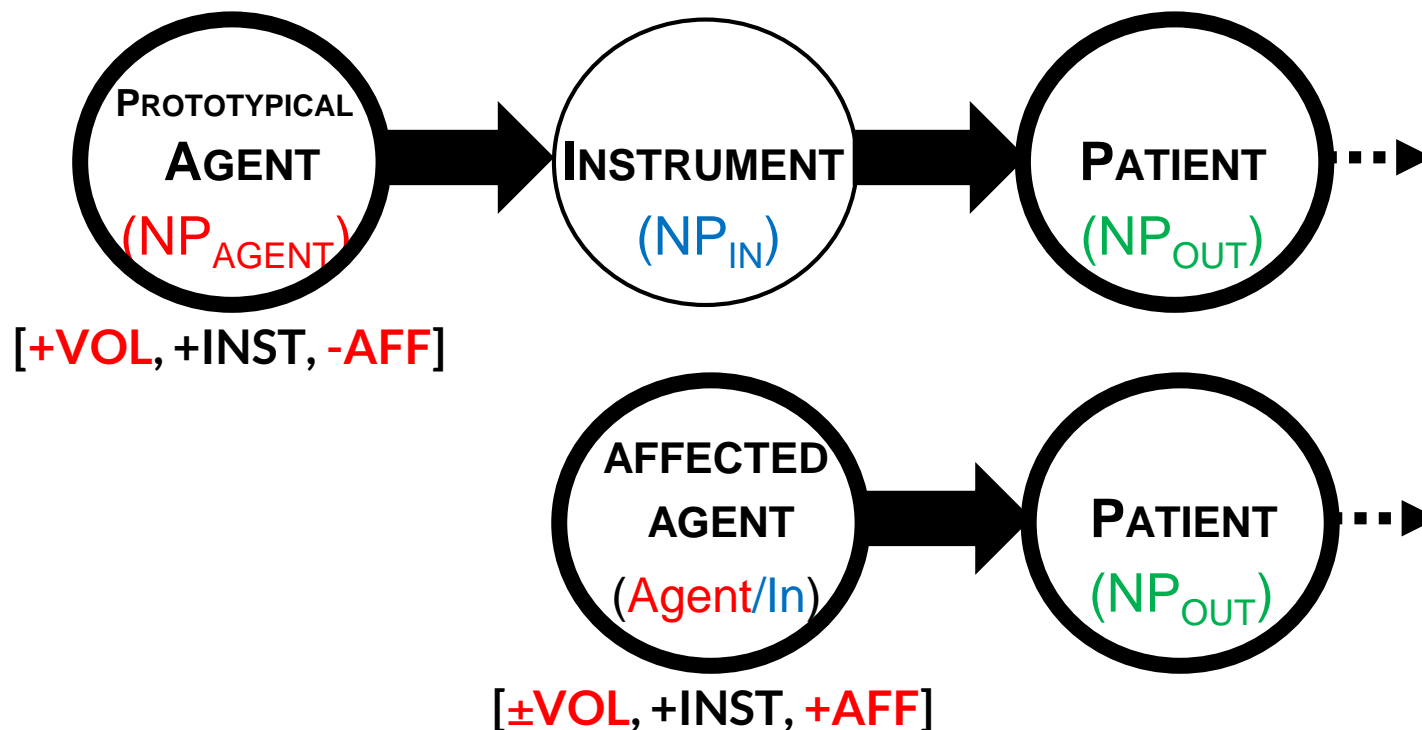
∅ 用 [IN 塑膠杯] 替換 [OUT 玻璃杯]。  
*Use a plastic cup to substitute the glass*

- Volition

# Two kinds of AGENT of SUBSTITUTE

- ▷ What are the factors that divide the interpretation of *John* into the  $NP_{AGENT}$  and the  $NP_{IN}$ ?

John **substituted** Bob in the second half.



# 'Affectedness' of AGENT

▷ How does 'affectedness' impact the degree of agentivity?

- The 'AGENT' being affected could be less agentive because
  - another participant closer to the 'head' of the action chain may be implied
  - the 'AFFECTED AGENT' may not fully exercise its volition (e.g., following orders)

[<sub>IN</sub> Councillor Tiffany] is now **substituting** [<sub>OUT</sub> Councillor Kurtz] and may now take her full part in the meeting.

由	[ <sub>IN</sub> 貝羅士]	來	替換	[ <sub>OUT</sub> 他]。
you	bei-luo-shi	lai	ti-huan	ta
from	Bellos	come	substitute	3sg

# Conclusion

- ▷ ‘Affectedness’, to some extent, may relate to the degree of agentivity due to the possible reduce of volition
- ▷ In *substitute* and 替換 (*ti4haun4*), ‘affectedness’ seems to be the factor relating to the agentivity of the ‘AGENT’
- ▷ The ‘AFFECTED AGENT’ may be less agentive than the ‘PROTOTYPICAL AGENT’
- ▷ **Context** and **constructions** also impact our interpretation of the NP at issue

# Acknowledgement

- ▷ Research reported in this presentation was supported by the research project (Project Number: 106-2410-H-004-109-MY2)
- ▷ We thank the suggestions of the reviewer and the support of the Corpus Lab at National Chengchi University