



Treebanking a Morphology-Poor Language

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Chinese Treebank *(Xue, Xia, Chiou, Palmer 2005)*

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A common pattern

NP	V	NP	V	NP
he	hope	she	rob	bank
he	force	she	rob	bank
he	ask	she	rob	bank

Google use \$3.3 billion buy Double Click



A common pattern

NP V NP V NP

he hope she rob bank

“He hopes she will rob the bank.”

he force she rob bank

“He forced her to rob the bank.”

he ask she rob bank

“He asked her to rob the bank.”

Google use \$3.3 billion buy Double Click

“Google bought Double Click with \$3.3 billion.”



A common pattern

NP	V	NP	V	NP
他	希望	她	抢	银行
he	hope	she	rob	bank

“He *hopes* she *will* rob *the* bank.”

他	逼	她	抢	银行
he	force	she	rob	bank

“He *forced* her *to* rob *the* bank.”

他	要	她	抢	银行
he	ask	she	rob	bank

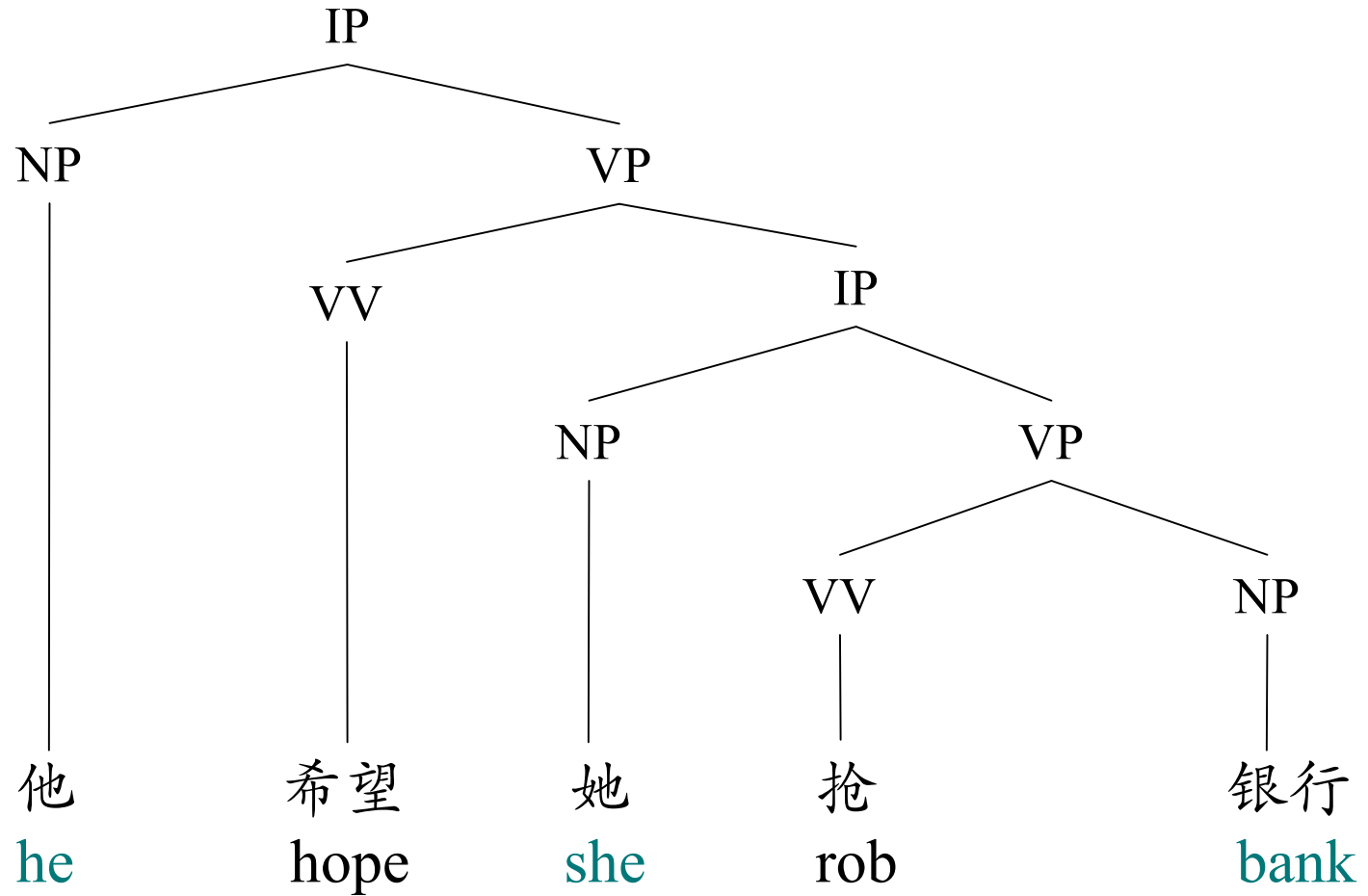
“He *asked* her *to* rob *the* bank.”

谷歌	用	33 亿	买	Double Click
Google	use	\$3.3 billion	buy	Double Click

“Google *bought* Double Click with \$3.3 billion.”



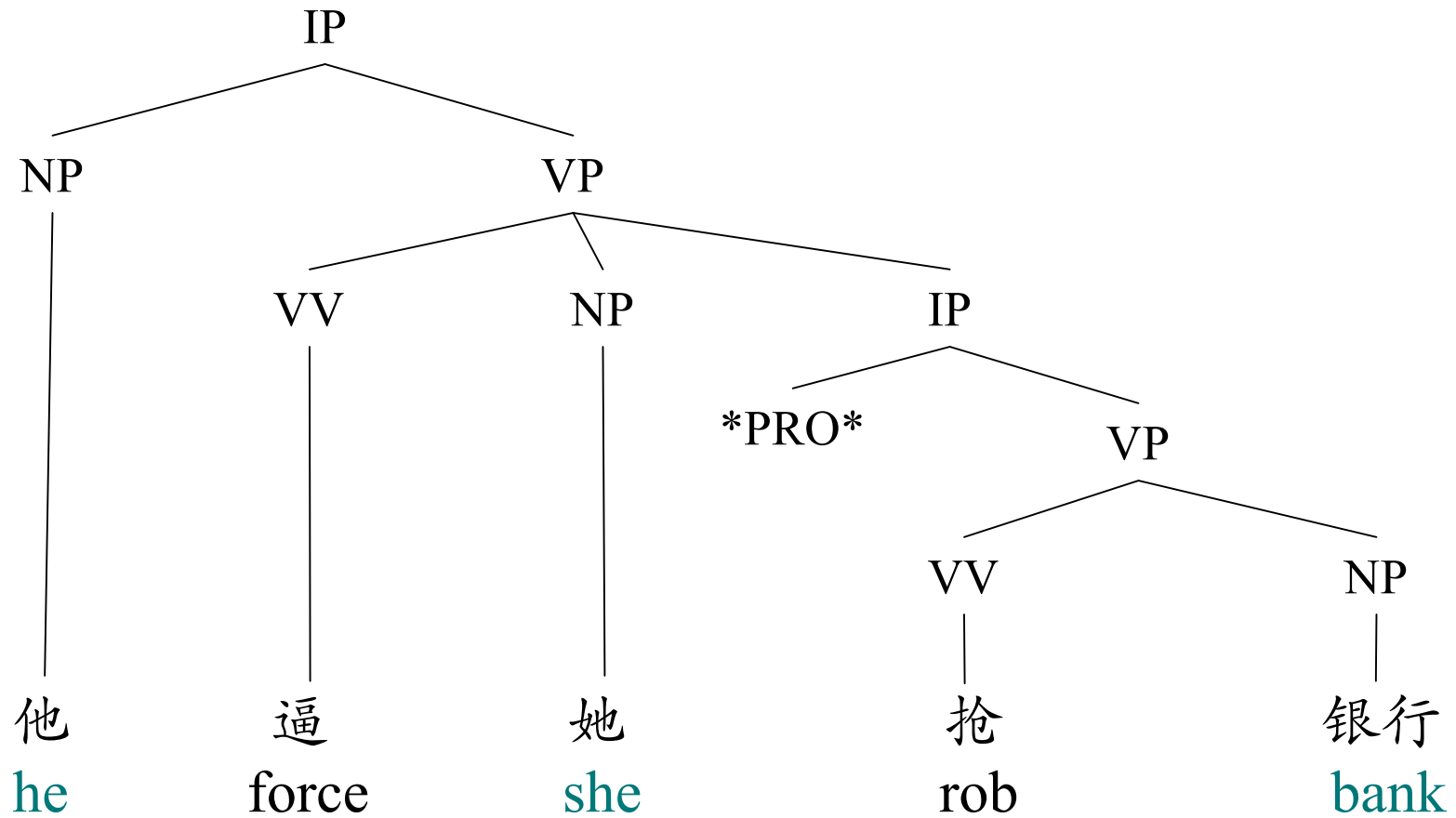
Sentential complement



“He hopes she will rob the bank.”



Object control



“He forced her to rob the bank.”



Sentential complement vs object control

- Can it take an existential construction as its complement?
- Can it take an idiom as its complement?
- Can it take a BEI construction as its complement?
- Can it take a topic construction as its complement?
- Can the complement clause have an aspectual marker?

Yes  Sentential complement
No  Object control



Can be very subtle

他	要	她	抢	银行
he	ask	she	rob	bank

“He asked her to rob the bank.”

“He asked that she rob the bank.”

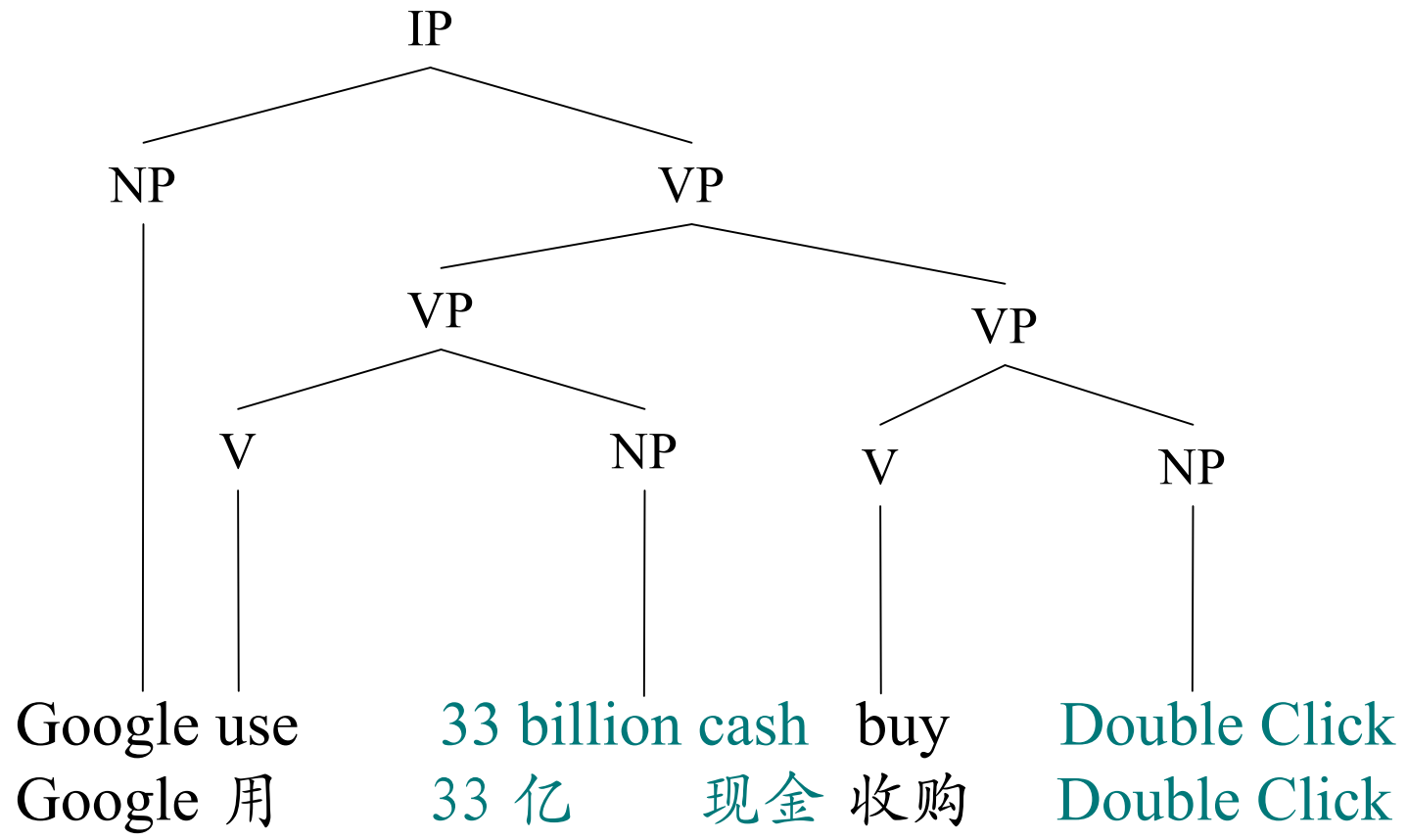
NP V NP V NP

Google use 33 billion cash buy Double Click
Google 用 33 亿 现金 收购 Double Click

Google used 33 billion cash to buy Double Click
Google bought Double Click with 33 billion cash



SVC





Phrase structure vs dependency structure

- Are we going to have less or more problems if we do dependency annotation?
 - ❖ Object control vs sentential complement
 - ❖ SVC
- Hard linguistics problems != hard annotation problems