

Feature Grammar Practice Solution

Feature Grammar Practice

- **Initial Grammar:**

`S -> NP VP`

`VP[subcat=ditrans] -> V NP NP`

`NP -> NNP`

`NP -> Det N`

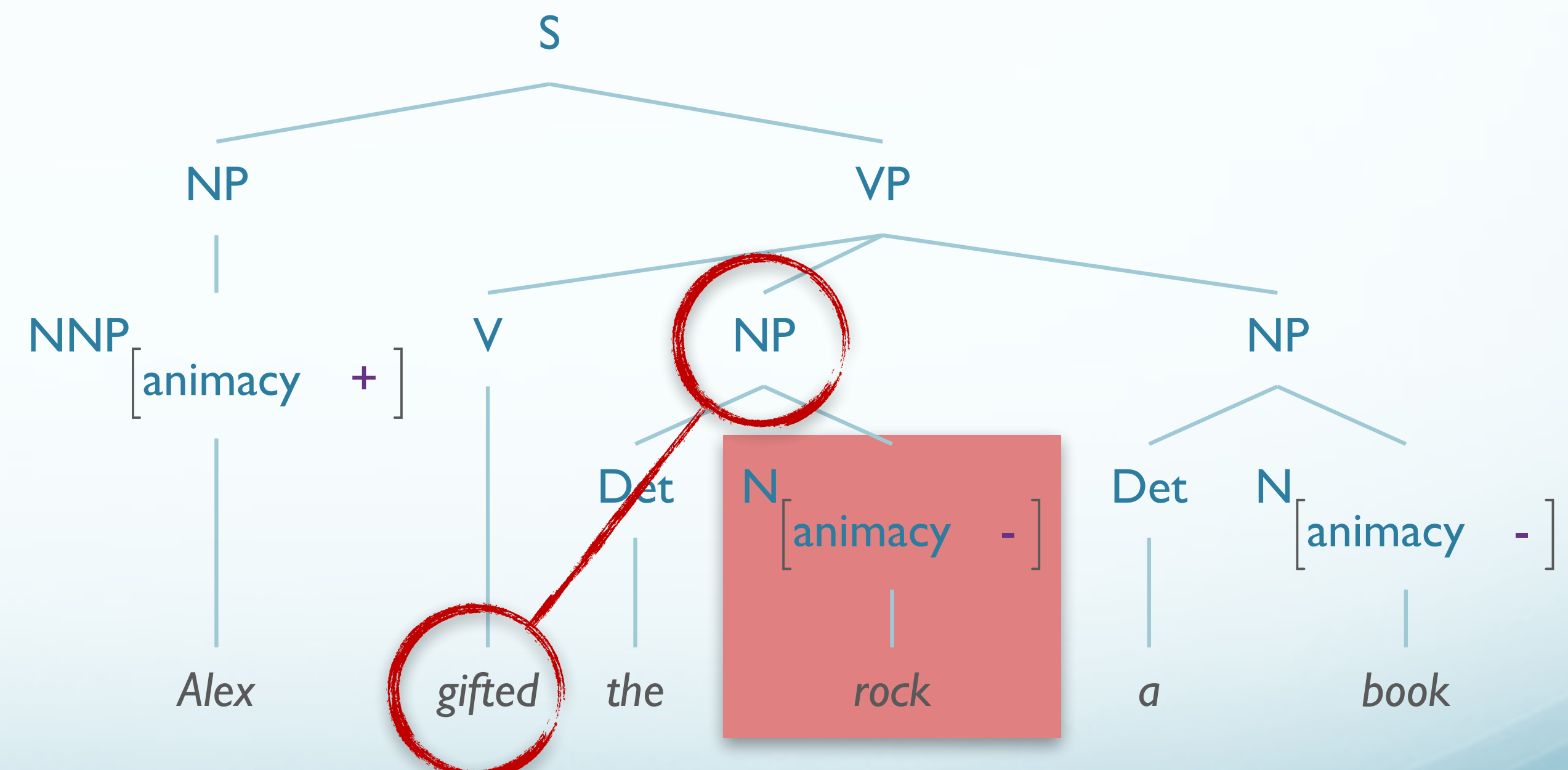
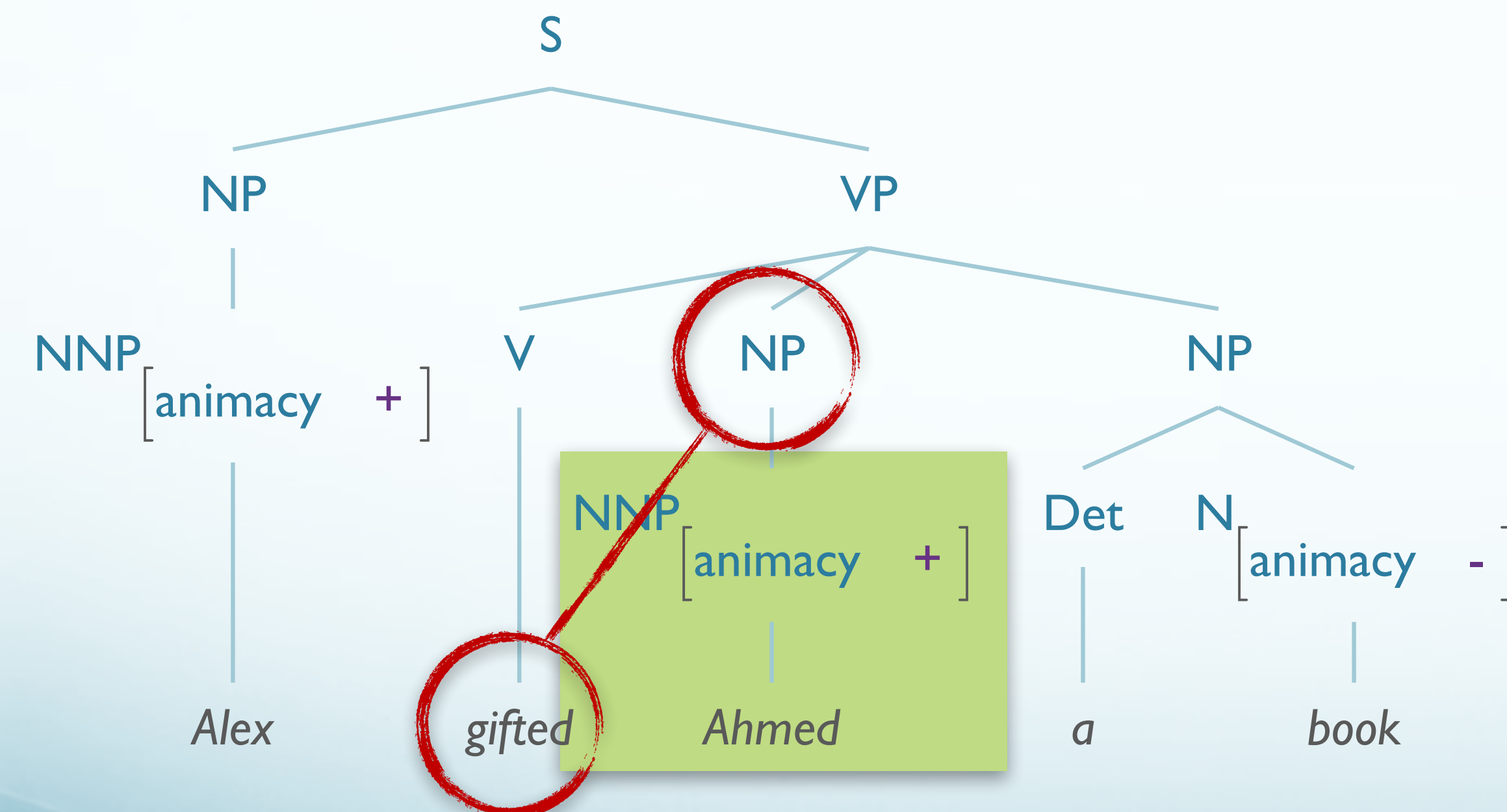
`NNP[animacy=True] -> 'Alex' | 'Ahmed'`

`V -> 'gifted'`

`Det -> 'a' | 'the'`

`N[animacy=False] -> 'book' | 'rock'`

Feature Grammar Practice



A possible solution

```
grammar='''%start S
S -> NP VP
```

*# In this analysis, we create agreement between
a verb requires an animate arg (but doesn't
have an 'animacy' characteristic itself)*

```
VP -> V[dobj_animacy=?oa] NP[animacy=?oa] NP
V[dobj_animacy=True] -> 'gifted'
```

```
NP[animacy=?a] -> NNP[animacy=?a]
NP[animacy=?a] -> Det N[animacy=?a]
NNP[animacy=True] -> 'Alex' | 'Ahmed'
```

```
Det -> 'a' | 'the'
N[animacy=False] -> 'book' | 'rock'
'''
```

