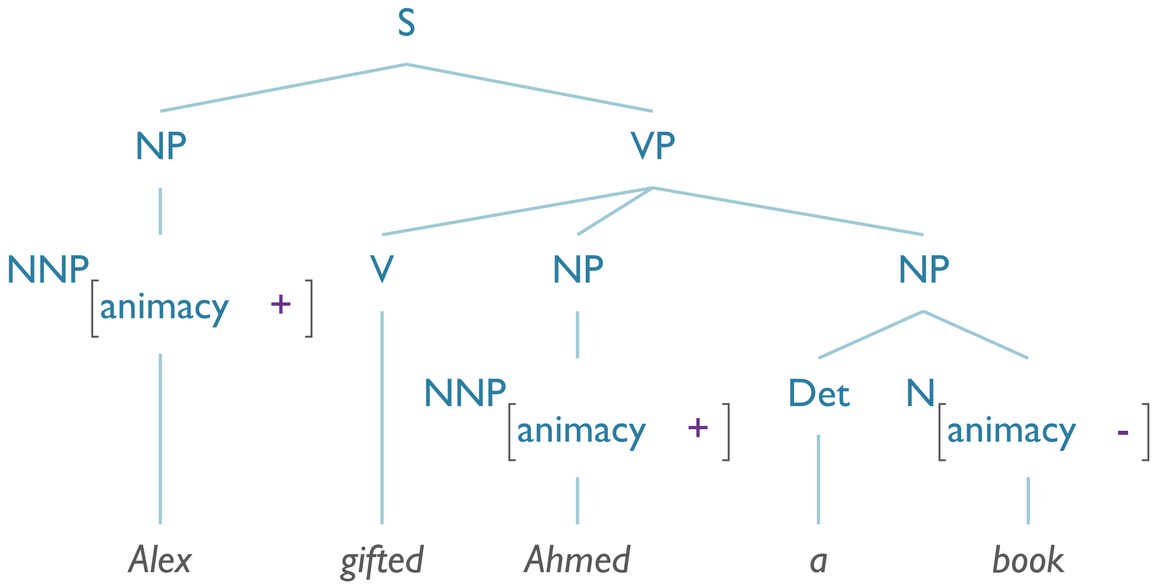
Feature Grammar Practice Solution

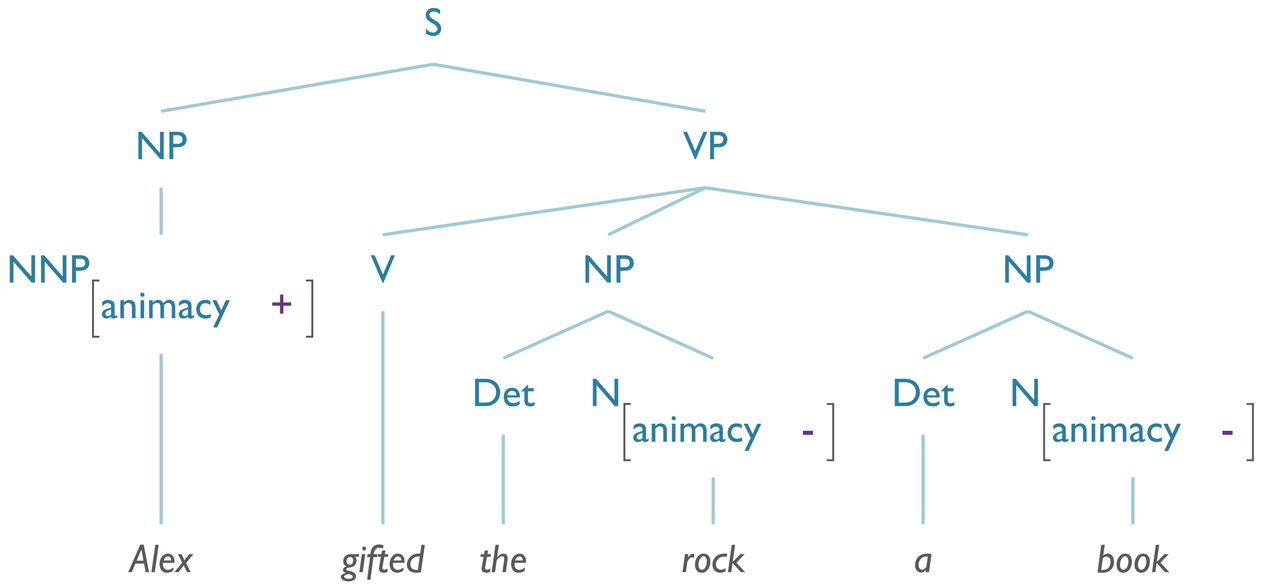
Feature Grammar Practice

- **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





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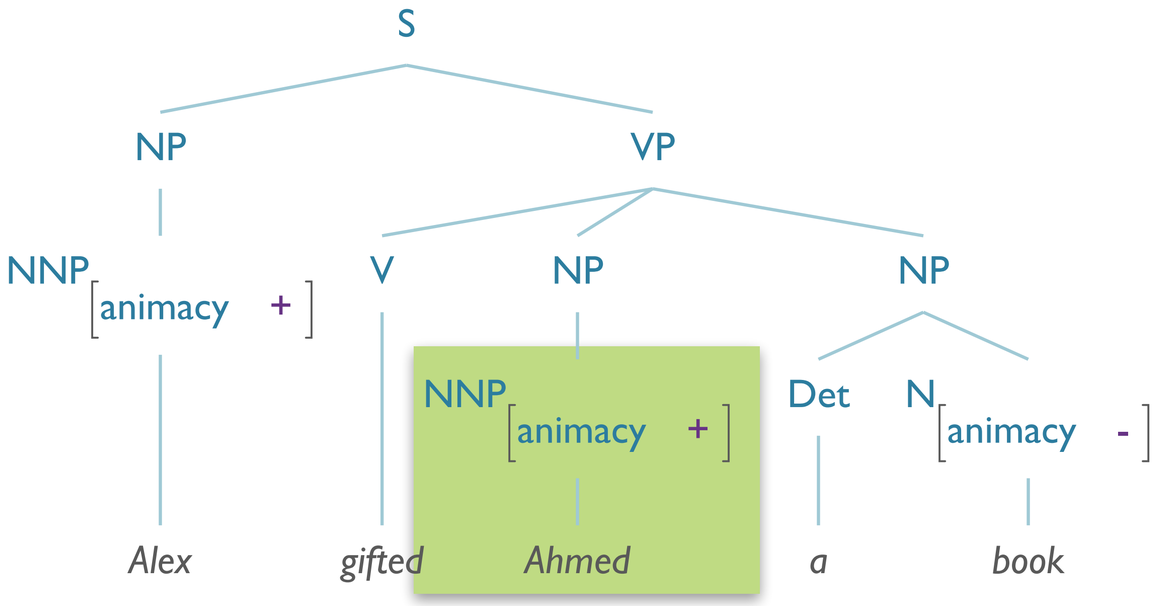

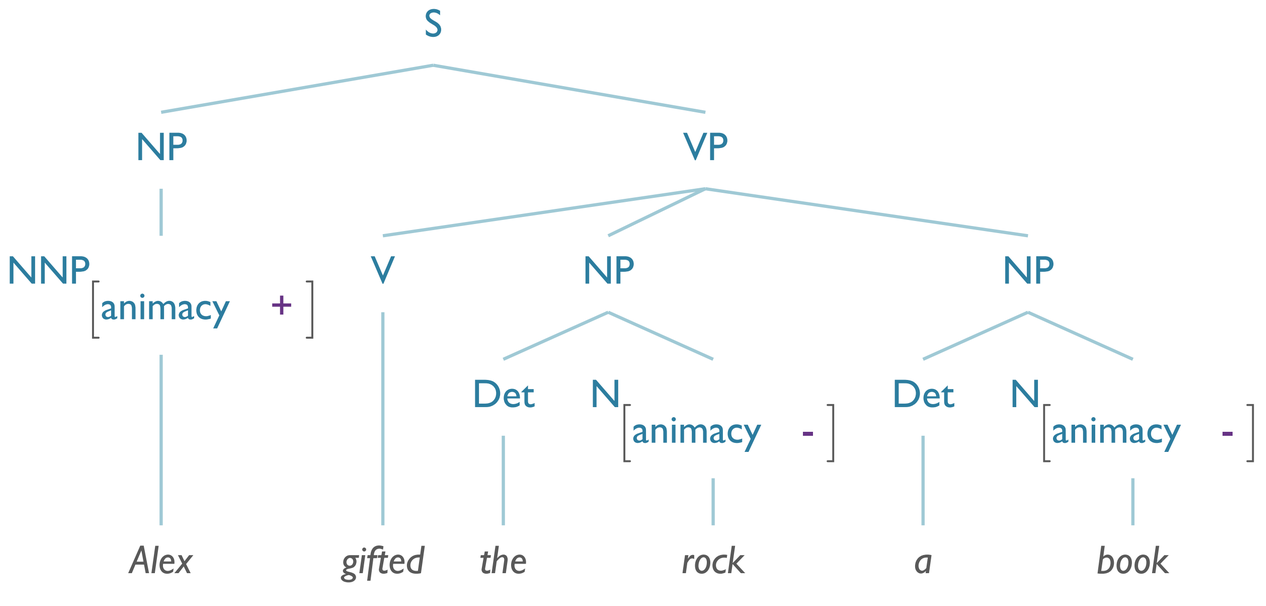

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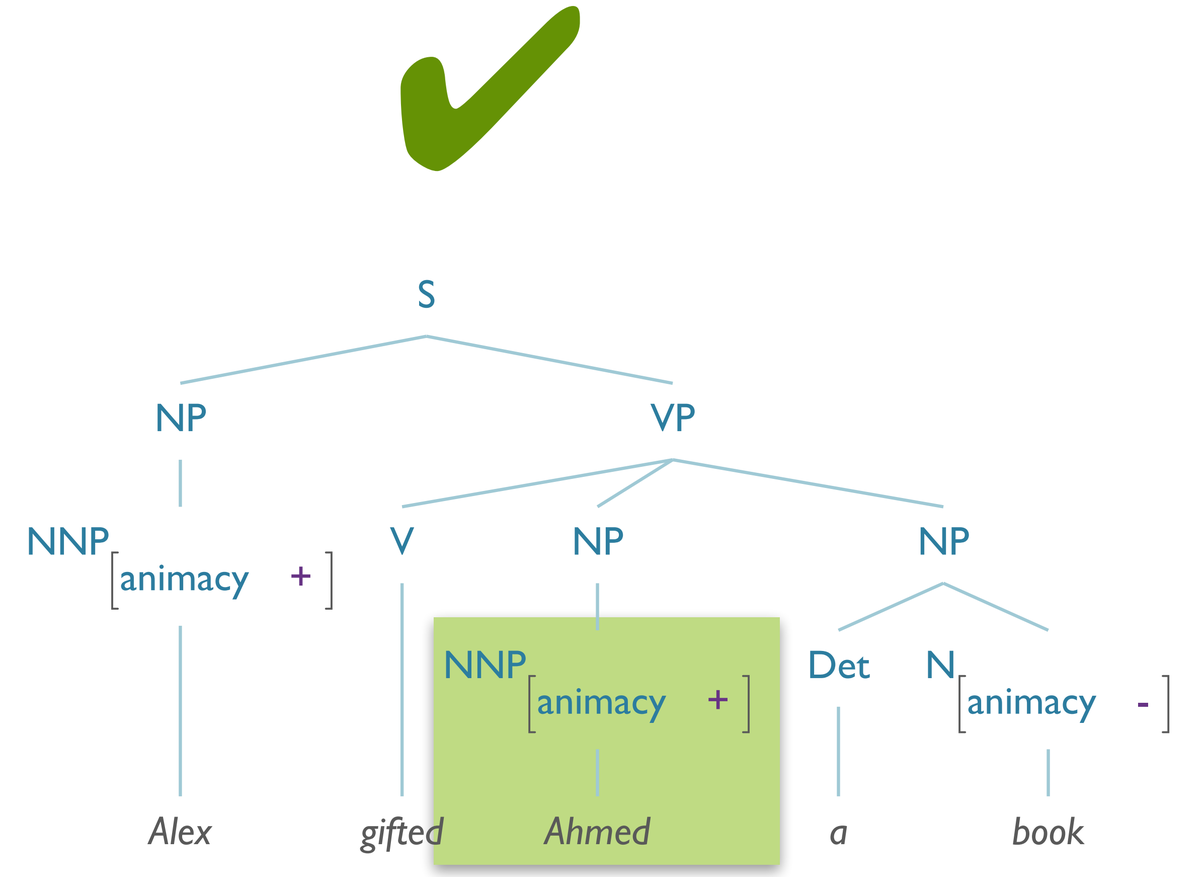

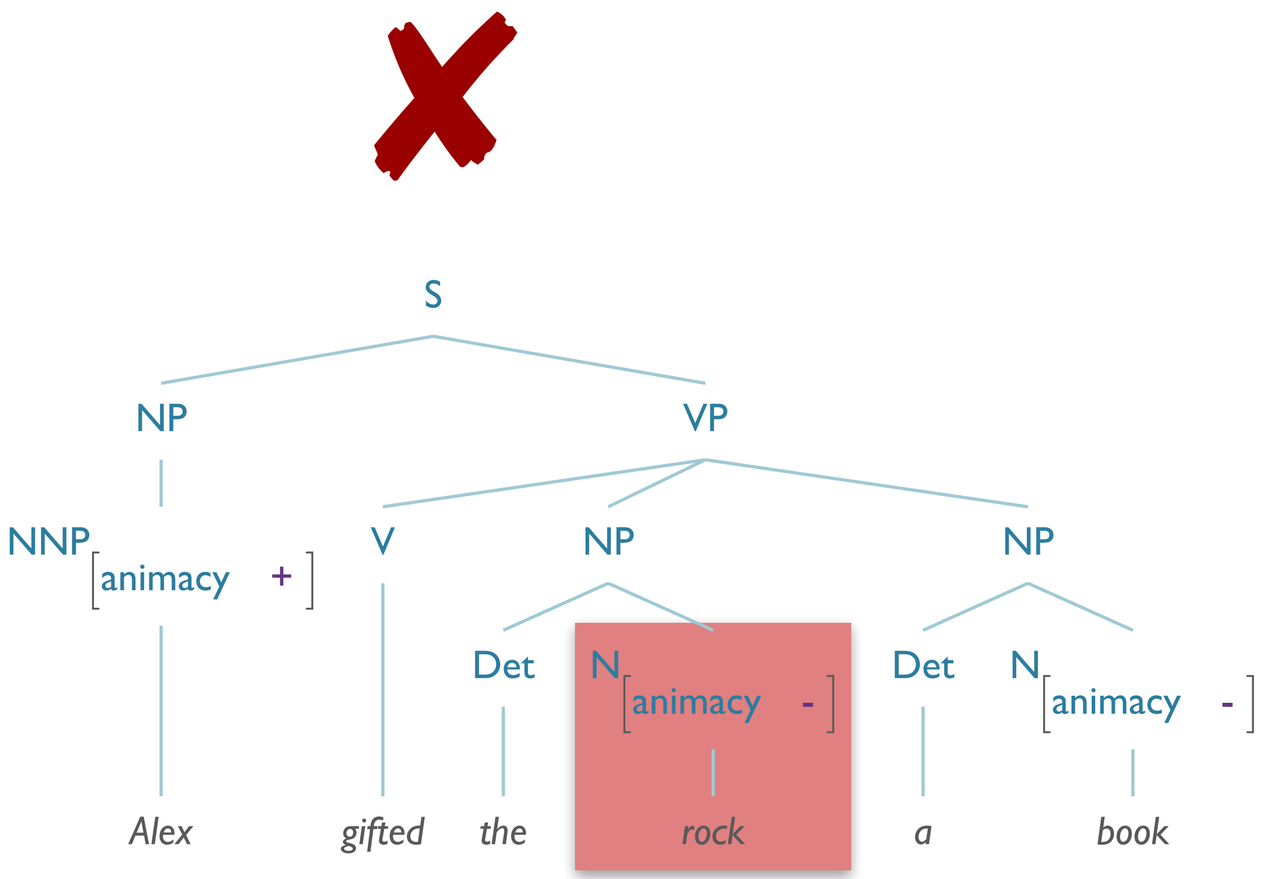

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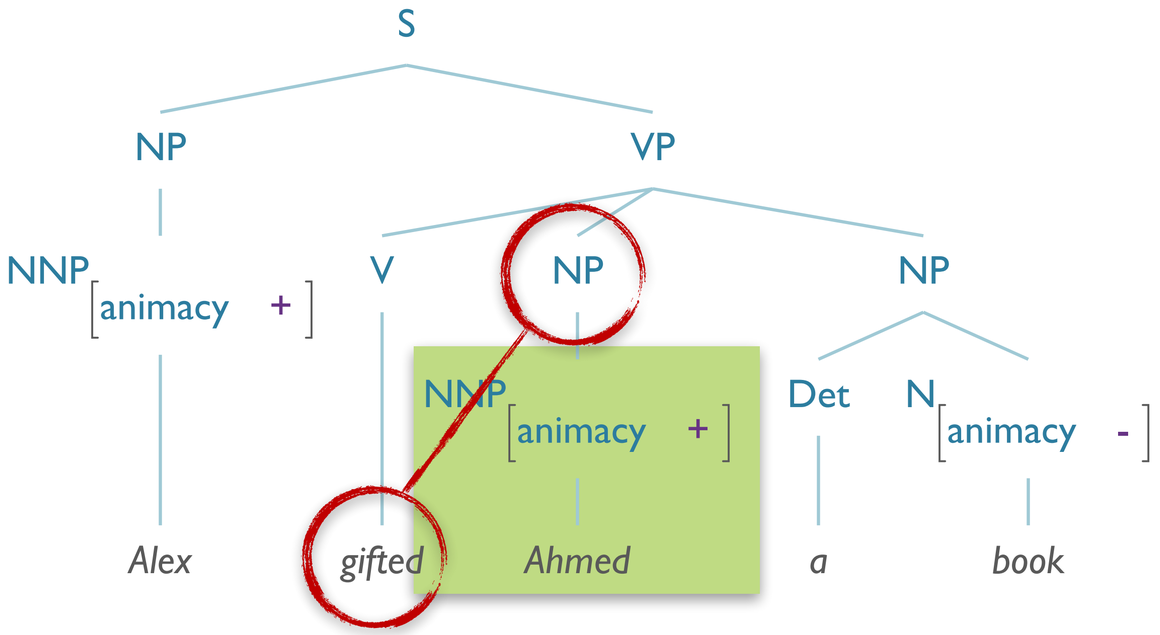

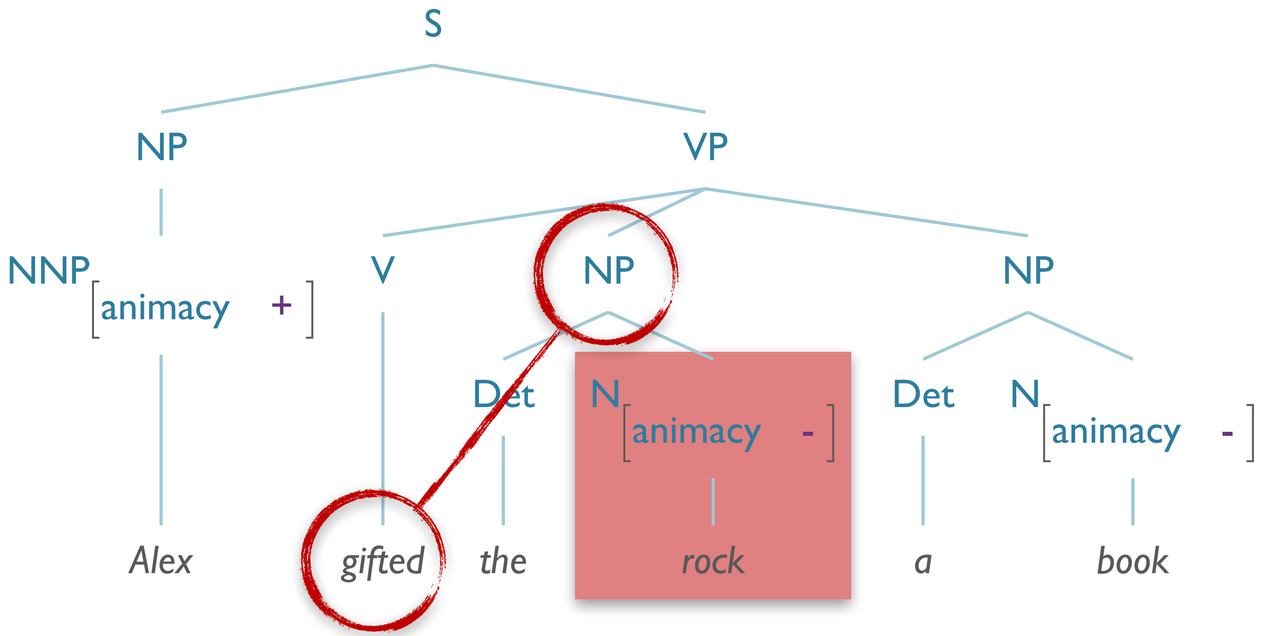

A possible solution

```
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]
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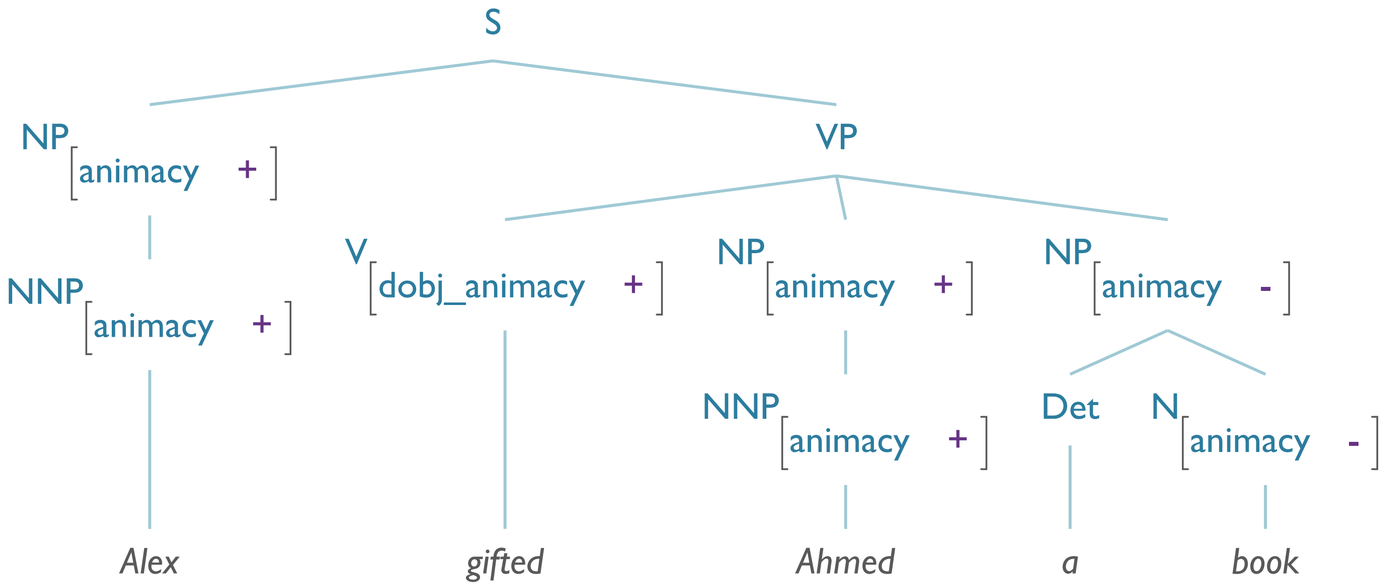

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