

Arc-Hybrid Transition System

Configuration:

STACK

S1	S0
----	----

BUFFER

b

Arc-Hybrid Transition System

Configuration:

STACK

who developed

BUFFER

the

Arc-hybrid (Kuhlmann et al., 2011)

Arc-Hybrid Transition System

Configuration:

STACK

S1	S0
----	----

BUFFER

b

Arc-Hybrid Transition System

Configuration:

STACK	BUFFER
S1 S0	b

Transitions:

Arc-Hybrid Transition System

Configuration:

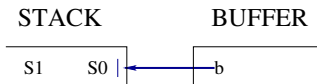
STACK		BUFFER
S1	S0	b

Transitions:

SHIFT

Arc-Hybrid Transition System

Configuration:

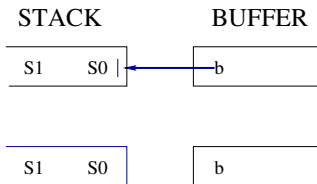


Transitions:

SHIFT

Arc-Hybrid Transition System

Configuration:



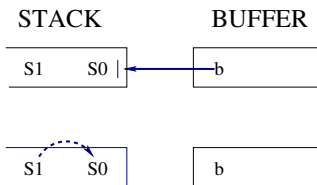
Transitions:

SHIFT

RIGHT-ARC

Arc-Hybrid Transition System

Configuration:



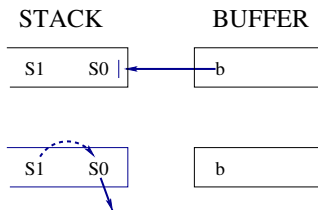
Transitions:

SHIFT

RIGHT-ARC

Arc-Hybrid Transition System

Configuration:



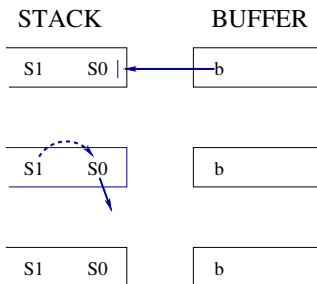
Transitions:

SHIFT

RIGHT-ARC

Arc-Hybrid Transition System

Configuration:



Transitions:

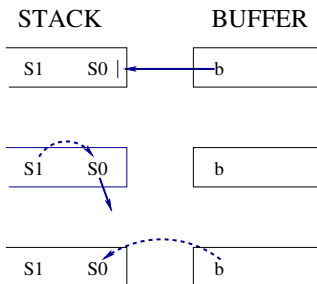
SHIFT

RIGHT-ARC

LEFT-ARC

Arc-Hybrid Transition System

Configuration:



Transitions:

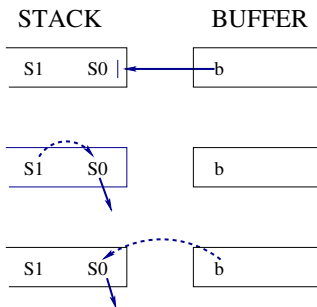
SHIFT

RIGHT-ARC

LEFT-ARC

Arc-Hybrid Transition System

Configuration:



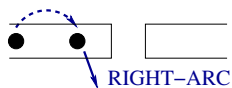
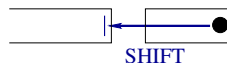
Transitions:

SHIFT

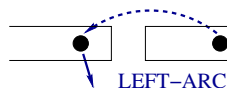
RIGHT-ARC

LEFT-ARC

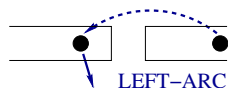
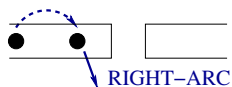
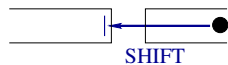
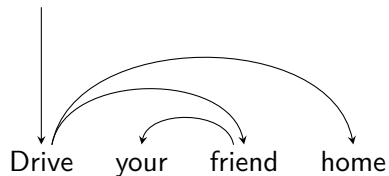
Transition Sequence Example



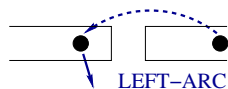
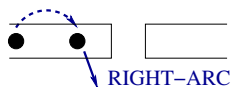
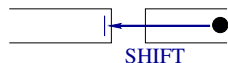
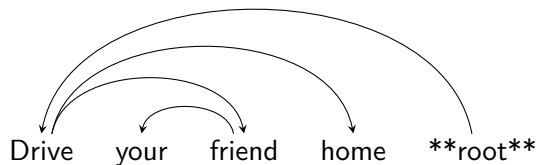
Drive your friend home



Transition Sequence Example

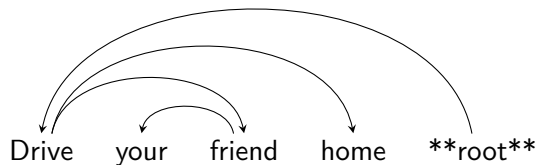


Transition Sequence Example

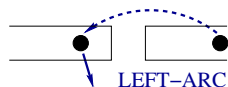
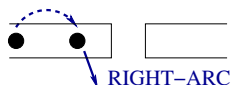
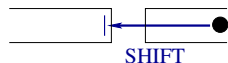


Transition Sequence Example

INITIAL CONFIGURATION

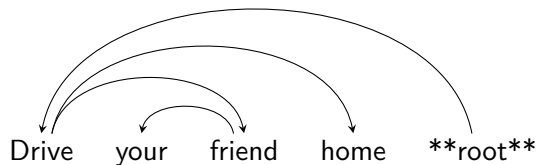


[] [Drive your friend home **root**]

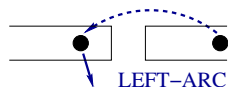
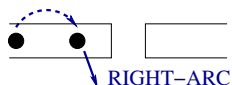
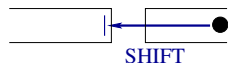


Transition Sequence Example

SHIFT

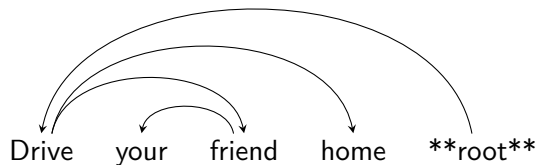


[Drive] [your friend home **root**]

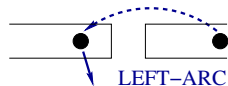
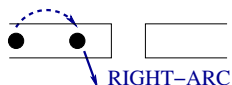
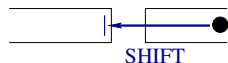


Transition Sequence Example

SHIFT

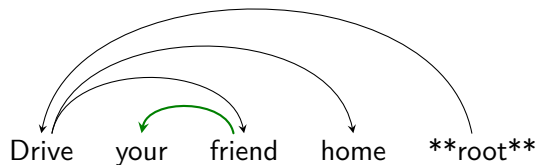


[Drive your] [friend home **root**]

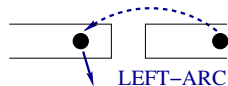
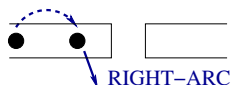
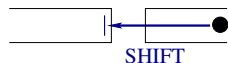


Transition Sequence Example

LEFT-ARC

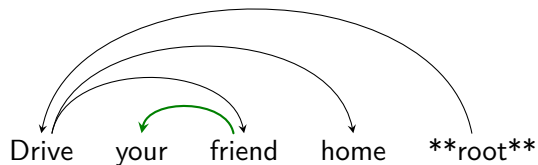


[Drive] [friend home **root**]



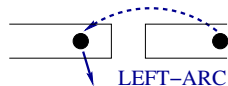
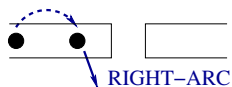
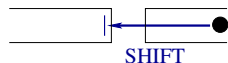
Transition Sequence Example

SHIFT



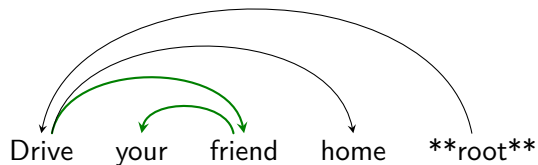
[Drive friend]

[home **root**]

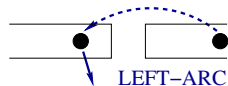
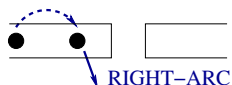
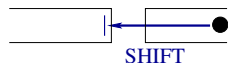


Transition Sequence Example

RIGHT-ARC

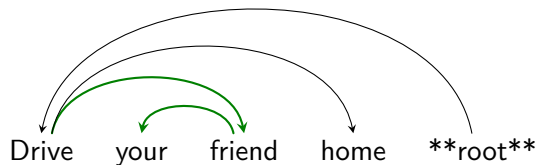


[Drive] [home **root**]



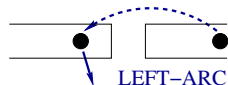
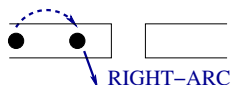
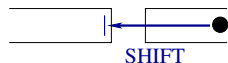
Transition Sequence Example

SHIFT



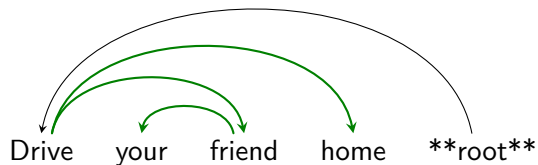
[Drive home]

[**root**]

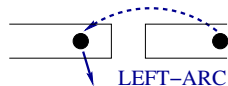
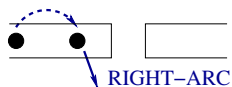
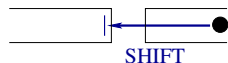


Transition Sequence Example

RIGHT-ARC

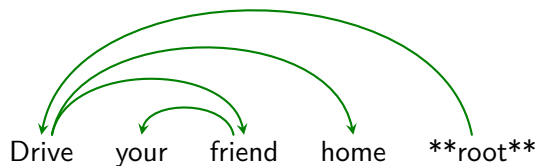


[Drive] [**root**]

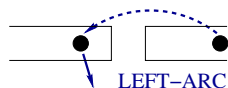
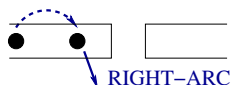
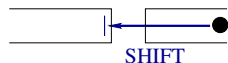


Transition Sequence Example

LEFT-ARC

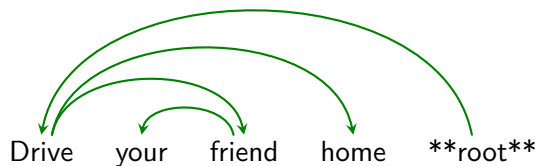


[] [**root**]

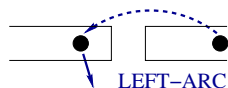
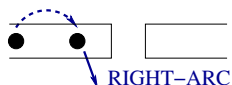
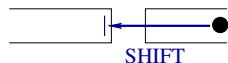


Transition Sequence Example

TERMINAL CONFIGURATION

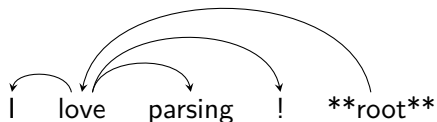


[] [**root**]



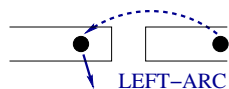
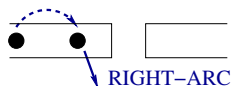
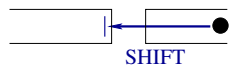
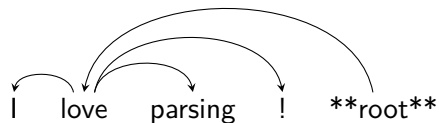
Quiz time!

Goal: figure out the transition sequence for this tree:



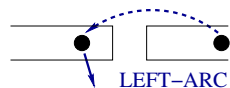
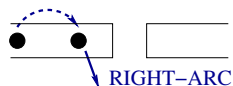
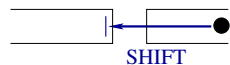
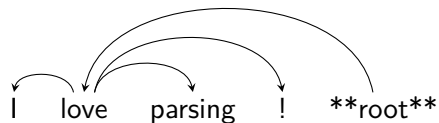
Quiz time!

Goal: figure out the transition sequence for this tree:



Quiz time!

Goal: figure out the transition sequence for this tree:



Go to:

ucph.page.link/tb

References

Marco Kuhlmann, Carlos Gómez-Rodríguez, and Giorgio Satta. 2011. Dynamic programming algorithms for transition-based dependency parsers. In *Proceedings of the 49th Annual Meeting of the Association for Computational Linguistics: Human Language Technologies*, pages 673–682.