

	VB	TO	NN	PPSS
<S>	0.019	0.0043	0.041	0.067
VB	0.0038	0.035	0.047	0.007
TO	0.83	0	0.00047	0
NN	0.004	0.016	0.087	0.0045
PPSS	0.23	0.00779	0.0012	0.00014

A: Tag Transitions (Brown Tag Set)

B: Observation Likelihoods

	I	want	to	race
VB	0	0.0093	0	0.0012
TO	0	0	0.99	0
NN	0	0.000054	0	0.00057
PPSS	0.37	0	0	0

	I PPSS	want VB	to TO	race VB
<S>				
PPSS	$P(\text{PPSS} \text{<S>}) = 0.067$ $P(\text{I} \text{PPSS}) = 0.37$ $.067 * 0.37 = \mathbf{0.025}$	$\max(0.025, 0, 0, 0) = 0.025$ $P(\text{PPSS} \text{PPSS}) = 0.00014$ $P(\text{want} \text{PPSS}) = 0$ $0.025 * 0.00014 * 0 = 0$	$\max(0, 0.000053, 0, 1.6e-9) = 0.000053$ $P(\text{PPSS} \text{VB}) = 0.007$ $P(\text{to} \text{PPSS}) = 0$ $0.000053 * 0.007 * 0 = 0$	$\max(0, 0, 0.000019, 0) = 0.000019$ $P(\text{PPSS} \text{TO}) = 0$ $P(\text{race} \text{PPSS}) = 0$ $0.000019 * 0 * 0 = 0$
VB	$P(\text{VB} \text{<S>}) = 0.019$ $p(\text{I} \text{VB}) = 0$ $.019 * 0 = 0$	$\max(0.025, 0, 0, 0) = 0.025$ $P(\text{VB} \text{PPSS}) = 0.23$ $P(\text{want} \text{VB}) = 0.0093$ $0.025 * 0.23 * 0.0093 = \mathbf{0.000053}$	$\max(0, 0.000053, 0, 1.6e-9) = 0.000053$ $P(\text{VB} \text{VB}) = 0.0038$ $P(\text{to} \text{VB}) = 0$ $0.000053 * 0.0038 * 0 = 0$	$\max(0, 0, 0.000019, 0) = 0.000019$ $P(\text{VB} \text{TO}) = 0.83$ $P(\text{race} \text{VB}) = 0.0012$ $0.000019 * 0.83 * 0.0012 = \mathbf{0.0000002}$
TO	$P(\text{TO} \text{<S>}) = 0.0043$ $P(\text{I} \text{TO}) = 0$ $0.0043 * 0 = 0$	$\max(0.025, 0, 0, 0) = 0.025$ $P(\text{TO} \text{PPSS}) = 0.00779$ $P(\text{want} \text{TO}) = 0$ $0.025 * 0.00779 * 0 = 0$	$\max(0, 0.000053, 0, 1.6e-9) = 0.000053$ $P(\text{TO} \text{VB}) = 0.35$ $P(\text{to} \text{TO}) = 0.99$ $0.000053 * 0.35 * 0.99 = \mathbf{0.000019}$	$\max(0, 0, 0.000019, 0) = 0.000019$ $P(\text{TO} \text{TO}) = 0$ $P(\text{race} \text{TO}) = 0$ $0.000019 * 0 * 0 = 0$
NN	$P(\text{NN} \text{<S>}) = 0.041$ $P(\text{I} \text{NN}) = 0$ $0.041 * 0 = 0$	$\max(0.025, 0, 0, 0) = 0.025$ $P(\text{NN} \text{PPSS}) = 0.0012$ $P(\text{want} \text{NN}) = 0.000054$ $0.025 * 0.0012 * 0.000054 = 1.6e-9$	$\max(0, 0.000053, 0, 1.6e-9) = 0.000053$ $P(\text{NN} \text{VB}) = 0.047$ $P(\text{to} \text{NN}) = 0$ $0.000053 * 0.047 * 0 = 0$	$\max(0, 0, 0.000019, 0) = 0.000019$ $P(\text{NN} \text{TO}) = 0.00047$ $P(\text{race} \text{NN}) = 0.00057$ $0.000019 * 0.00047 * 0.00057 = 5.1e-12$