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# **Natural Language Processing and Computational Linguistics 1**

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*Speech, Morphology and Syntax*

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Errata

**iSTE**

**WILEY**

p.226, Figure 4.87 should be replaced with:

S	→ NP VP	0.7
S	→ VP	0.3
NP	→ Det N	0.27
NP	→ PN	0.63
NP	→ Pron	0.1
VP	→ V Adj	0.5
VP	→ V	0.3
VP	→ NP V	0.2
Det	→ mon (my)	0.45
Det	→ <b>le</b> (the)	0.55
NP	→ Jean (John)	1.0
V	→ <b>livre</b> (delivers)	0.1
V	→ aime (likes)	0.3
V	→ est (is)	0.5
V	→ court (runs)	0.1
N	→ <b>livre</b> (book)	0.35
N	→ cahier (notebook)	0.40
N	→ programme (program)	0.25
Adj	→ intéressant (interesting)	0.6
Adj	→ cher (expensive)	0.4
Pron	→ le (it + masc)	0.3
Pron	→ la (it + fem)	0.3
Pron	→ les (it + plur)	0.4

**p.226:**  $\pi(v \rightarrow \text{descends})$  should be replaced with  $\pi(v \rightarrow \text{runs})$ .

**p.227:** in Figure 4.88 book should be replaced with notebook.

**p.229:** algorithm such as A\* should be replaced with algorithms such as A\*.

**p.230:** we add the two possible rules in the grammar:  $\text{Det} \rightarrow \text{the}$  0.55 and  $\text{Pron} \rightarrow \text{the}$  0.3. should be replaced with we add the two possible rules in the grammar:  $\text{Det} \rightarrow \text{le}$  0.55 and  $\text{Pron} \rightarrow \text{le}$  0.3.

**p.230:** as follows:  $\pi(\text{NP} \rightarrow \text{Pron}) * \pi(\text{Pron} \rightarrow \text{the}) = 0.1 * 0.3 = 0.03$ . should be replaced with as follows:  $\pi(\text{NP} \rightarrow \text{Pron}) * \pi(\text{Pron} \rightarrow \text{le}) = 0.1 * 0.3 = 0.03$ .

**p.230:** whose probability is calculated in the following manner:  $\pi(S \rightarrow \text{NP VP}) \pi(\text{NP} \rightarrow \text{Pron}) \pi(\text{VP} \rightarrow \text{V}) = 0.7 * 0.0006 * 0.051 = 0.000021$ . should be replaced with whose probability is calculated in the following manner:  $\pi(S \rightarrow \text{NP VP}) \pi(\text{NP} \rightarrow \text{Pron}) \pi(\text{VP} \rightarrow \text{V}) = 0.7 * 0.03 * 0.03 = 0.00062$ .

**p.230:** Figure 4.91 should be replaced with:

Le	livre	est	intéressant
<b>Det</b> $\rightarrow$ <b>le</b> 0.55 <b>Pron</b> $\rightarrow$ <b>le</b> 0.3 <b>NP</b> $\rightarrow$ <b>Pron</b> 0.03  <b>[0,1]</b>	<b>[0,2]</b>	<b>[0,3]</b>	<b>[0,4]</b>
	<b>N</b> $\rightarrow$ <b>livre</b> 0.35 <b>V</b> $\rightarrow$ <b>livre</b> 0.1 <b>VP</b> $\rightarrow$ <b>V</b> 0.03 <b>S</b> $\rightarrow$ <b>VP</b> 0.009  <b>[1,2]</b>	<b>[1,3]</b>	<b>[1,4]</b>
		<b>V</b> $\rightarrow$ <b>est</b> 0.5 <b>VP</b> $\rightarrow$ <b>V</b> 0.15 <b>S</b> $\rightarrow$ <b>VP</b> 0.045  <b>[2,3]</b>	<b>[2,4]</b>
			<b>Adj</b> $\rightarrow$ <b>intéressant</b> <b>0.6</b>  <b>[3,4]</b>

p.231: Figure 4.92 should be replaced with:

Le	livre	est	intéressant
<b>Det</b> → le 0.55 <b>Pron</b> → le 0.3 <b>NP</b> → <b>Pron</b> 0.03  [0,1]	<b>NP</b> → <b>Det</b> <b>N</b> 0.051 <b>VP</b> → <b>NP</b> <b>V</b> 0.0006 <b>S</b> → <b>NP</b> <b>VP</b> 0.0006  [0,2]	[0,3]	[0,4]
	<b>N</b> → livre 0.35 <b>V</b> → livre 0.1 <b>VP</b> → <b>V</b> 0.03 <b>S</b> → <b>VP</b> 0.009  [1,2]	[1,3]	[1,4]
		<b>V</b> → est 0.5 <b>VP</b> → <b>V</b> 0.15 <b>S</b> → <b>VP</b> 0.045  [2,3]	<b>VP</b> → <b>V</b> <b>Adj</b> 0.15 <b>S</b> → <b>VP</b> 0.045  [2,4]
			<b>Adj</b> → intéressant 0.6  [3,4]

p.231: Figure 4.93 should be replaced with:

Le	livre	est	intéressant
<b>Det</b> → <b>le</b> 0.55 <b>Pron</b> → <b>le</b> 0.3 <b>NP</b> → <b>Pron</b> 0.03  [0,1]	<b>NP</b> → <b>Det N</b> 0.051 <b>VP</b> → <b>NP V</b> 0.0006 <b>S</b> → <b>NP VP</b> 0.0006  [0,2]	<b>S</b> → <b>NP VP</b> 0.005  [0,3]	   [0,4]
	<b>N</b> → <b>livre</b> 0.35 <b>V</b> → <b>livre</b> 0.1 <b>VP</b> → <b>V</b> 0.03 <b>S</b> → <b>VP</b> 0.009  [1,2]	   [1,3]	   [1,4]
		<b>V</b> → <b>est</b> 0.5 <b>VP</b> → <b>V</b> 0.15 <b>S</b> → <b>VP</b> 0.045  [2,3]	<b>VP</b> → <b>V Adj</b> 0.15 <b>S</b> → <b>VP</b> 0.045  [2,4]
			<b>Adj</b> → <b>intéressant</b> <b>0.6</b>  [3,4]

p.232: Figure 4.94 should be replaced with:

<b>Le</b>	<b>livre</b>	<b>est</b>	<b>intéressant</b>
<b>Det → le 0.55</b> <b>Pron → le 0.3</b> <b>NF → Pron 0.03</b>  <b>[0,1]</b>	<b>NP → Det N 0.051</b> <b>VP → NP V 0.0006</b> <b>S → NP VP 0.0006</b>  <b>[0,2]</b>	 <b>S → NP VP 0.005</b>  <b>[0,3]</b>	 <b>S → NP VP 0.005</b>  <b>[0,4]</b>
	<b>N → livre 0.35</b> <b>V → livre 0.1</b> <b>VP → V 0.03</b> <b>S → VP 0.009</b>  <b>[1,2]</b>	    <b>[1,3]</b>	    <b>[1,4]</b>
		<b>V → est 0.5</b> <b>VP → V 0.15</b> <b>S → VP 0.045</b>  <b>[2,3]</b>	<b>VP → V Adj 0.15</b> <b>S → VP 0.045</b>  <b>[2,4]</b>
			<b>Adj → intéressant</b> <b>0.6</b>  <b>[3,4]</b>