| Order 4 | Order 3 | Order 2 | Order 1 | Order 0 | | |
|--------------------------|---------|---------|---------|---------|--|--|
| xyzz→x 2 | xyz→z 2 | xy→z 2 | х→у З | x 4 | | |
| yzzx $ ightarrow$ y 1 | yzz→x 2 | →x 1 | y→z 2 | у 3 | | |
| zzxy→x 1 | zzx→y 1 | yz→z 2 | →x 1 | z 4 | | |
| zхух \rightarrow у 1 | zxy→x 1 | zz→x 2 | z→z 2 | | | |
| xyxy→z 1 | хух→у 1 | zx→y 1 | →x 2 | | | |
| yxyz $ ightarrow$ z 1 | yxy→z 1 | ух→у 1 | | | | |

(a)

| Order 4 | Order 3 | Order 2 | Order 1 | Order 0 |
|------------------------|--------------|--------------|---------|---------|
| xyzz→x 2 | xyz→z 2 | xy→z 2 | х→у З | x 4 |
| yzzx→y 1 | yzz→x 2 | ху→х 1 | →z 1 | у 3 |
| \rightarrow z 1 | zzx→y 1 | yz→z 2 | y→z 2 | z 5 |
| zzxy→x 1 | → z 1 | zz→x 2 | →x 1 | |
| $zxyx \rightarrow y$ 1 | zxy→x 1 | zx→y 1 | z→z 2 | |
| xyxy→z 1 | хух→у 1 | → z 1 | →x 2 | |
| yxyz→z 1 | yxy→z 1 | ух→у 1 | | |
| | | • | • | • |
| | | (b) | | |

Table 2.71: (a) Contexts and Counts for "xyzzxyxyzzx". (b) Updated After Another z Is Input.

| Order 2 | | Order 1 | | | Order 0 | | | | | |
|--------------------------------|--------|---------|--------------------------|---------------|---------|-----|-----|------|---|------|
| Context | f | p | Cont | ext | f | p | Syn | nbol | f | p |
| as→s | 2 | 2/3 | $a \rightarrow$ | s | 2 | 2/5 | a | | 4 | , |
| esc | 1 | 1/3 | $a \rightarrow$ | \mathbf{n} | 1 | 1/5 | s | | 6 | 6/19 |
| | | | esc- | \rightarrow | 2 | 2/5 | n | | 1 | 1/19 |
| $ss \rightarrow a$ | 2 | 2/5 | | | | | i | | 2 | 2/19 |
| ss→i | 1 | 1/5 | $s \rightarrow$ | s | 3 | 3/9 | m | | 1 | 1/19 |
| esc | 2 | 2/5 | $s \rightarrow$ | a | 2 | 2/9 | esc | | 5 | 5/19 |
| | | | $s \rightarrow$ | i | 1 | 1/9 | | | | |
| $sa \rightarrow n$ | 1 | 1/2 | esc | | 3 | 3/9 | | | | |
| esc | 1 | | | | | r | | | | |
| | | , | $n \rightarrow$ | i | 1 | 1/2 | | | | |
| $\mathtt{an}{	o}\mathtt{i}$ | 1 | 1/2 | esc | | 1 | 1/2 | | | | |
| esc | 1 | | | | | , | | | | |
| | | , | $i \rightarrow$ | s | 1 | 1/4 | | | | |
| $ni \rightarrow s$ | 1 | 1/2 | $i \rightarrow$ | m | | 1/4 | | | | |
| esc | | 1/2 | esc | | | 2/4 | | | | |
| | | , | | | | , | | | | |
| $is \rightarrow s$ | 1 | 1/2 | $\mathbf{m} \rightarrow$ | a | 1 | 1/2 | | | | |
| esc | 1 | | esc | | 1 | | | | | |
| | | , | | | | , | | | | |
| $\mathtt{si} {\to} \mathtt{m}$ | 1 | 1/2 | | | | | | | | |
| esc | 1 | | | | | | | | | |
| | | , | | | | | | | | |
| $im \rightarrow a$ | 1 | 1/2 | | | | | | | | |
| esc | 1 | | | | | | | | | |
| | _ | -, - | | | | | | | | |
| $ma \rightarrow s$ | 1 | 1/2 | | | | | | | | |
| esc | 1 | 1/2 | | | | | | | | |
| | | 7 - | | | | | | | | |

Table 2.72: Contexts, Counts (f), and Probabilities (p) for "assanissimassa".

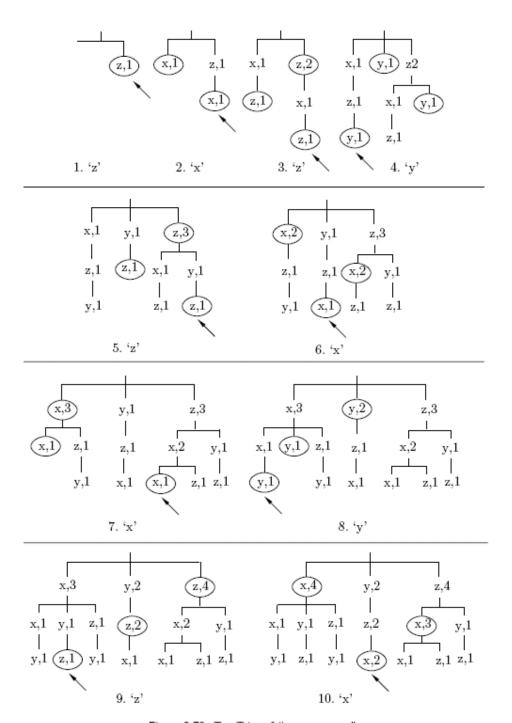


Figure 2.73: Ten Tries of "zxzyzxxyzx".

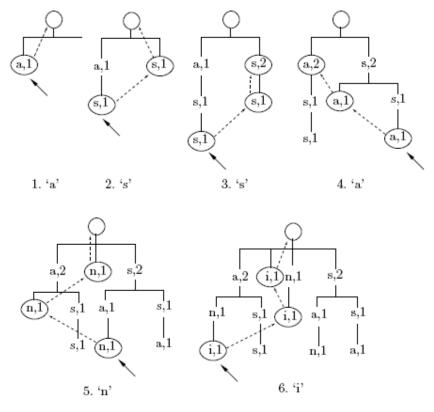


Figure 2.74: Part I. First Six Tries of "assanissimassa".

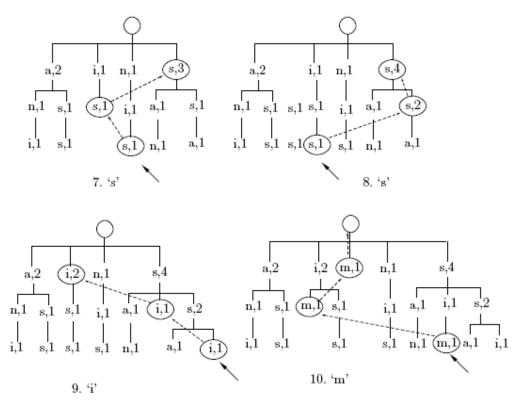


Figure 2.74: (Continued) Next Four Tries of "assanissimassa".

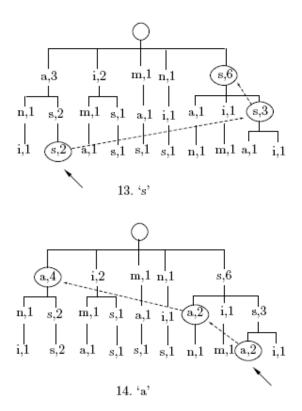


Figure 2.74: (Continued) Final Two Tries of "assanissimassa".