SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

strap
chin strap

trap

street

treat

strip
film strip

trip
SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

- strainer
- spray
- screw
- trainer
- pray
- crew
SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

scrunchie

crib

script

crypt

scrum

football scrum

crumb

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SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

splatter

platter

splat

plait (braid)

squad

quad
SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

squire
medieval squire

choir

squid

quid

squash

quash
**SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters**

<table>
<thead>
<tr>
<th>Most Complex</th>
<th>Sonority Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless fricative + nasal</td>
<td>sm sn</td>
</tr>
<tr>
<td>Voiceless fricative + liquid</td>
<td>fl fr 0r sl</td>
</tr>
<tr>
<td>Voiced stop + liquid or voiceless fricative + glide</td>
<td>bl br dr gl gr sw</td>
</tr>
<tr>
<td>Voiceless stop + liquid</td>
<td>pl pr tr kl kr</td>
</tr>
<tr>
<td>Voiceless stop + glide</td>
<td>tw kw</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Least Complex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider targeting 3-element clusters, and 2-element clusters with smaller sonority differences (2 or 3 or 4).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vowels</th>
<th>0 voiced fricatives</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>glides</td>
<td>1 voiceless fricatives</td>
<td>5</td>
</tr>
<tr>
<td>liquids</td>
<td>2 voiced stops</td>
<td>6</td>
</tr>
<tr>
<td>nasals</td>
<td>3 voiceless stops</td>
<td>7</td>
</tr>
</tbody>
</table>

**Clusters**

Consonant clusters are more marked than singletons, but are some clusters *more* marked than others? One approach to classifying two-element consonant clusters according to markedness is to rank them according to their sonority difference score, using their numerical values from a sonority hierarchy (Ohala, 1999). This approach is called the Sonority Sequencing Principle or SSP. For example, /kw/ (7 minus 1) has a sonority difference score of 6, whereas /fl/ (5 minus 2) scores 3. Clusters with SMALL sonority differences of 2, 3 or 4 may better promote generalised change to singletons and clusters. Gierut (1999), Gierut & Champion (2001), and Morrisette, Farris & Gierut (2006) provide evidence and target selection guidelines.

**Targeting Adjuncts**

Note that the adjuncts /sp/, /st/ and /sk/ do not conform to the sonority sequencing principle with respect to generalisation.

**Targeting the 3-element Clusters**

**Prior knowledge of the second element and the third element is required.**

The 3-element consonant clusters, /spr/ /str/ /skr/ /spl/ and /skw/ should only be targeted if the child already has the relevant stop (/p/, /t/ or /k/) and the relevant liquid (/l/) or glide (w) present in his or her phonemic inventory. For example, if targeting /skw/ the child should have productive knowledge of /k/ and /w/, but does not need to have productive knowledge of /s/.

**Targeting the 2-element Clusters**

**Prior knowledge of the first element and/or the second element is not required.**

The 2-element clusters, /sm, /sn/, /fl/ etc. displayed on the chart above, can be targeted irrespective of whether the child has previous knowledge of either or both of the two elements. For example, in targeting /sl/ the child may or may not have previous knowledge of /s/ and/or /l/.

strap trap street treat strip strainer trainer spray pray scrum crumb script crypt scrunchie crunchy splatter platter splat plait squad quad squire choir squid quid squash quash

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