

Ultrasound Visual Biofeedback in the Clinical Management of Speech Sound Disorders

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Ultrasound visual biofeedback (U-VBF) has been used in intervention to treat¹:

- Residual speech sound errors
- Persistent speech disorders
- Childhood apraxia of speech
- Speech errors from cleft lip and/or palate

Evidence ranges from case studies to RCTs (mostly single case studies, 44.8%)^{1,2}

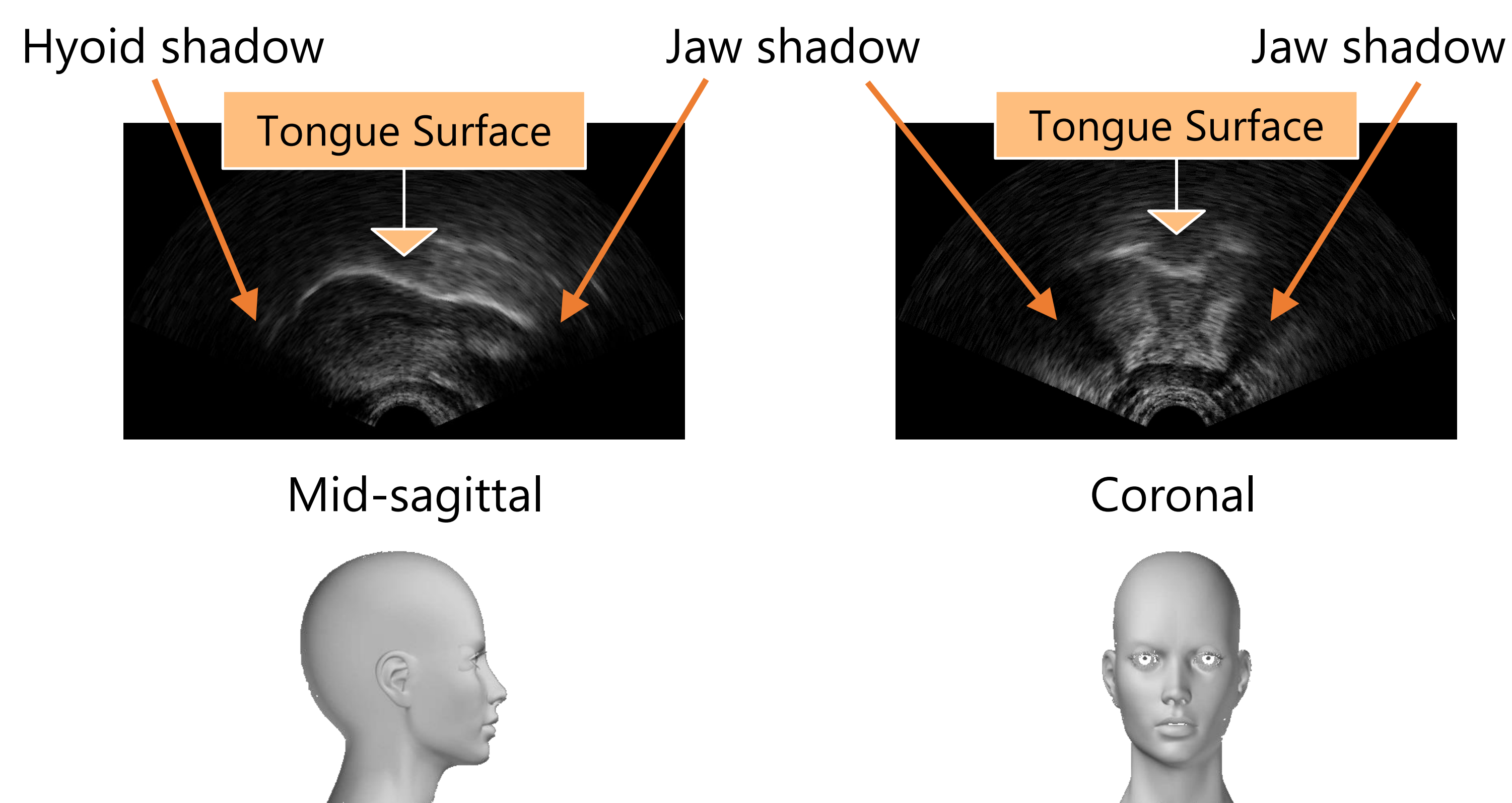
U-VBF can be used to treat many targets:



Across the evidence base, U-VBF has typically been used as an adjunct to other phonetic-based approaches¹

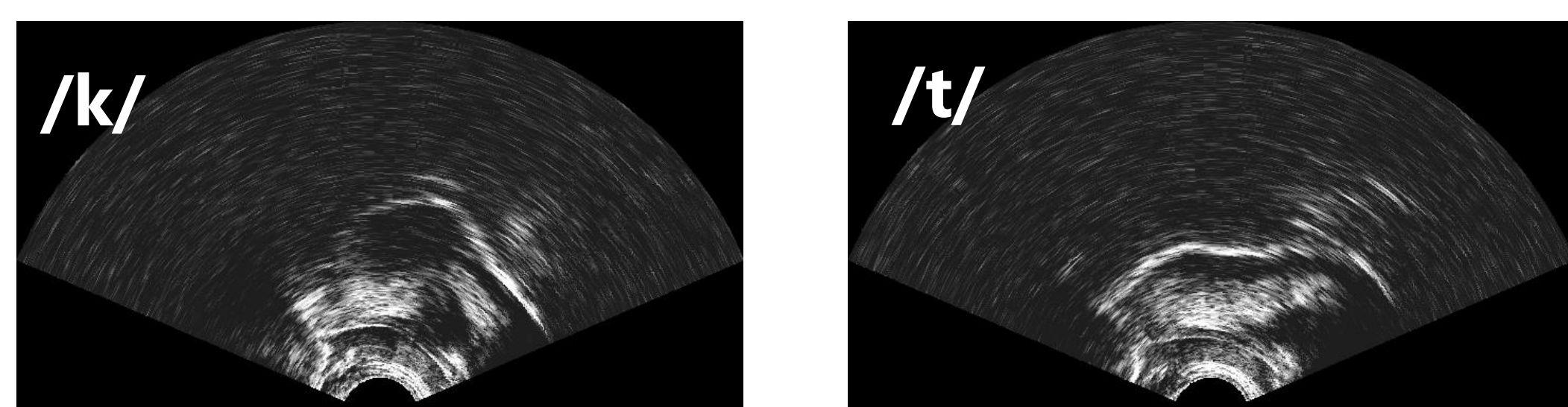
Facilitates the acquisition of targets, but some difficulties with generalisation for some participants^{1,3}

Interpreting the Ultrasound Image

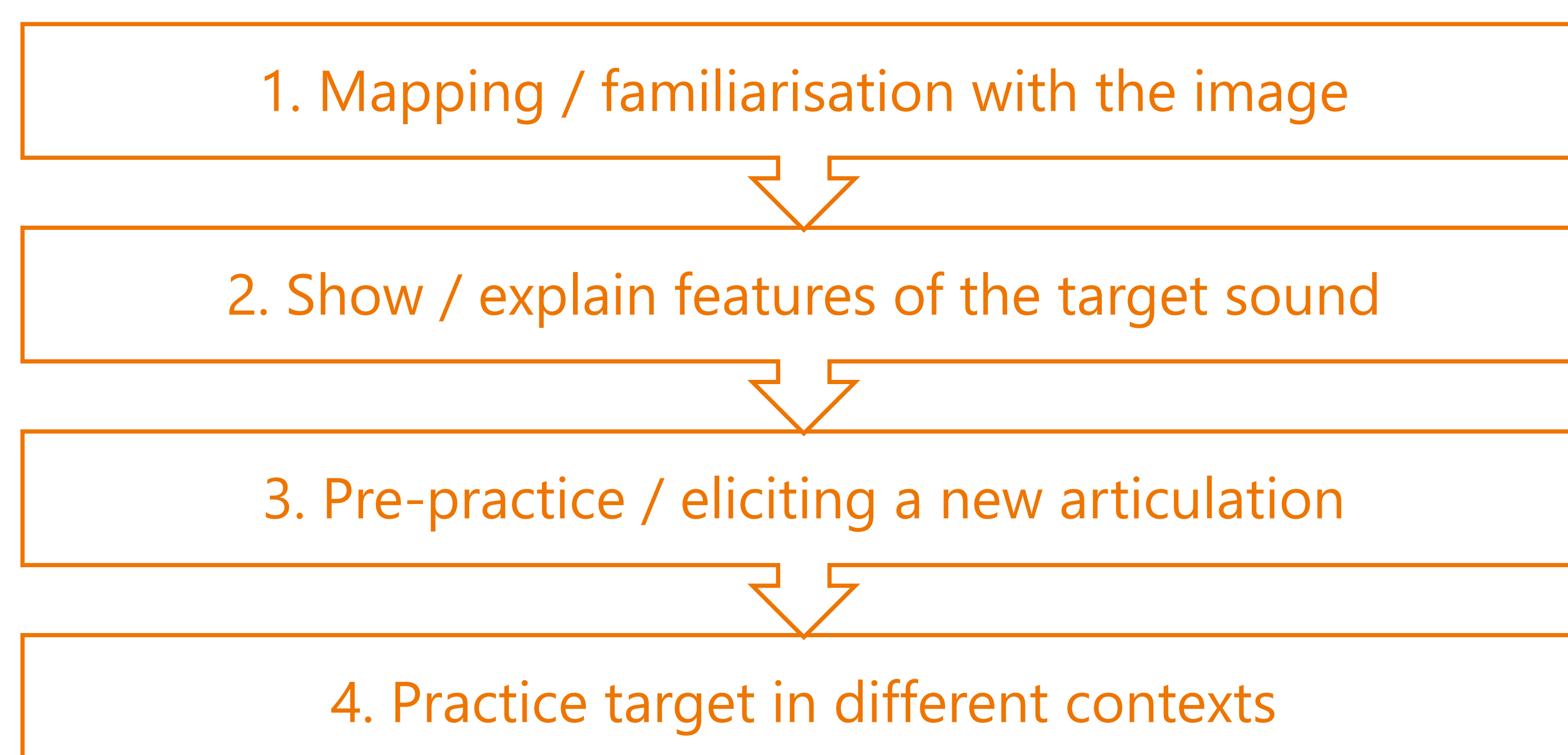


The ultrasound can be used in **assessment** to confirm transcriptions, identify unusual speech errors, or identify covert contrasts

Comparing /k/ and /t/



Steps in Ultrasound Intervention⁴



Consider the *Principles of Motor Learning* in therapy⁵



References

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