**STIMULUS CONDITIONS**

1. Speech (Sp)
2. Rotated speech TS (Rot-TS)
3. Rotated speech Blesser (Rot-Blesser)
4. Noise-vocoded speech (NV)
5. Rotated noise-vocoded speech (NV-Rot)

**CONTRASTS**

CONTRASTS USED in SCOTT EL Al. (2000)

1 Intelligible vs unintelligible speech

[(Sp + NV) – (Rot-Blesser + Rot-NV)]

1 0 -1 1 -1

2 Pitch perception with Blesser’s old rotation technique

[(Sp + Rot-Blesser) – (NV + Rot-NV)]

1 0 1 -1 -1

3 Any type of phonetic information

[(Sp + NV + Rot-Blesser) – (NV-Rot)]

1 0 1 1 -3

NEW CONTRASTS

4 Comparing rotation techniques with different harmonic structure (TS Kurt vs Blesser)

[(Rot-TS) – (Rot-Blesser)]

0 1 -1 0 0

5 Pitch perception with Kurt’s new rotation technique

(Sp + Rot-TS) – (NV + Rot-NV)

1 1 0 -1 -1