

Laryngeal–oral coordination was studied in German clusters of voiceless fricative or plosive plus // or /r/ by means of videofiberoendoscopy and transillumination. In all cases voice onset time (i.e. the time from release of C1 to onset of voicing) was longer in the clusters compared to the single fricative or plosive controls. However, the coordination patterns leading to this consistent acoustic effect were quite varied, ranging from a passive effect of aerodynamic conditions at release of C1, via shortening of C1 with constant glottal gesture, to enhancement of the glottal gesture. Active **reorganization** was particularly clear in the rhotic clusters. For the single consonants the duration of the glottal gesture was quite constant over place of articulation but occlusion duration varied systematically. Accordingly, for both clusters and singletons peak glottal opening did not keep a constant timing relationship to landmarks in the oral occlusion of C1. The above findings were robustly present over a range of prosodic conditions. Prosodic strengthening itself had a particularly clear influence on the magnitude of the devoicing gesture.