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# Voicing offsets and onsets in relation to intraoral pressure values in lingual obstruents of German

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Phonation requires that tracheal pressure remain higher than intraoral pressure (Pio). In obstruent consonants, a major constriction in the upper vocal tract yields an increase in Pio, inhibiting phonation. The degree of Pio increase in consonants varies as a function of laryngeal and supraglottal apertures. Voiceless stops involve a rapid buildup and discharge of Pio, whereas fricatives involve more gradual changes in Pio. This work quantifies phonation offsets and onsets in German obstruents in relation to the Pio at these times. Pio signals were recorded via a pressure transducer affixed to the posterior end of an EPG palate while 9 speakers of standard German produced intervocalic voiceless consonant sequences (stops, fricatives, affricates, and clusters). Past theoretical work suggests that phonation offsets and onsets will show a hysteresis effect, with onsets requiring higher driving pressures than offsets. Of particular interest here is whether the extent of hysteresis differs among stops, fricatives, and obstruent sequences. Data on intraoral pressure change will also be compared with EPG data to explore how supraglottal constrictions affect Pio, and thus, phonation.