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**The relation between articulatory and aerodynamic properties of
single /t/, /S/ and their combination in /tS/ and /St/**

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Intraoral pressure changes during speech production are a result of different factors, such as articulatory movements (place and manner of articulation), subglottal pressure, and laryngeal-oral coordination. This study attempts to provide a better understanding of the relation between aerodynamics and articulation in single voiceless consonants and their combinations. We gathered electropalatographic data simultaneously with intraoral pressure data for 9 native speakers of German. During voiceless aspirated stop production intraoral pressure equalizes with subglottal pressure since an oral closure is formed and the glottis is open. During voiceless fricative production intraoral pressure is lower than in stop production since the air can escape through the oral constriction. In /t, S, St/ the intraoral pressure changes are highly correlated with the articulatory behaviour. However, the affricate /tS/ shows an unusual relationship with aerodynamics and articulation. Although an oral closure is formed, pressure rises at a later point and reaches its peak during the fricative. We interpret these findings with respect to a special laryngeal - oral coordination in affricates as reported in Hoole et al. (2003) who found a relatively late glottal opening during the stop portion of the affricate.