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PROBING THE LIMITS OF COORDINATION: WORD ONSET CLUSTERS IN GEORGIAN

ANNE HERMES, REINHOLD GREISBACH & IOANA CHITORAN

BACKGROUND.

COORDINATION PATTERNS IN (EXTREMELY) LONG CONSONANT CLUSTERS IN WORD INITIAL POSITION IN GEORGIAN

clusters in Georgian expected to show a global c-center coordination, i.e. consonants in a complex onset adjust with respect to the following vowel (implying a rightward and leftward shift)

what happens if up to 6 consonants appear word initially, are they still globally coordinated?

RESULTS: 2-CONSONANT CLUSTERS

/cl/-/g/-/gv/ /ml/-/k/-/km/ /ml/-/k/-/kr/

results presented descriptively across the 4 speakers and 7 repetitions, red dot (zero) represents the target of the vocalic nucleus, i.e. vocalic anchor, blue dots represent the time of the gestural targets initial Cs

--> 2C clusters (/g/-, /km/-, /kr/-): rightmost C (/v/, m/, r/) shifted towards the vowel, leftmost C (/g/, /k/) shifted away from it (expected C-center coordination)

RESULTS: 3-CONSONANT CLUSTERS

/t//-/k'r/-/ts'k'r/ /d/-/vd/-/gd/-/gvd/

--> 3C clusters (/ts'k'r/, /gvd/): rightmost C (/r/, /d/) shifted towards the vowel, leftmost C (/ts'/, /g/) shifted away from it (global c-center coordination)

DIFFERENT WAYS OF GLOBAL COORDINATION

word initial Cs in Georgian considered as complex onsets: results confirm that indeed 2-3C clusters reflect a global, prototypical c-center coordination

however, when speech system is dealing with 4-6 Cs, it reaches its physical limits for a global c-center coordination - most importantly, it has to be ensured that all C gestures as well as the V gesture are perceptually recoverable

still globally coordinated --> different ways of global coordination