Explaining Inuktitut Consonant Alternations Using Contrastive Underspecification

In all Inuit dialects we observe morphophonemic alternations (in various environments) between voiceless stops and voiced continuants. The alternations are exemplified in the data below from North Baffin (Dorais, 2003):

(1) /p/~/v/:   sinik-**pu**ŋa   taku-**vu**ŋa   (p.102)
                sleep-INDIC.1SG   see-INDIC.1SG
                'I sleep'   'I see'

(2) /k/~/ɣ/:   tiki**k-k**uma   taku-**ɣ**uma   (p.103)
                arrive-COND.1SG   see-COND.1SG
                'if/when I arrive'   'if/when I see'

(3) /q/~/ʁ/:   ama**qq**u-t   amaʁuq   (p.98)
                wolf-ABS.PL   wolf.ABS.SG
                'wolves'   'wolf'

(4) /t/~/j/:   sinik-**tu**ŋa   taku-**ju**ŋa   (p.102)
                sleep-DEC.1SG   see-DEC.1SG
                'I sleep'   'I see'

With full feature specification, we could explain these alternations (in this dialect) with two rules (ignoring the conditioning environments):

(5) [−VOICE, −CONTINUANT] → [+VOICE, +CONTINUANT] / …
(6) t → j / …

However, this characterization fails to capture the fact that this is a single unified phenomenon. Furthermore, such an analysis would fail to capture why /t/ appears to alternate with different segments in different dialects; /ɹ/ in Inupiaq and Natsilingmiutut, /z/ in Cape Dorset, /ʒ/ in Itivimiut Nunavik, /ʃ/ in West Greenlandic, /l/ in East Greenlandic, and /h/ in Polar Greenlandic.

Instead, by employing Dresher (2002)'s Successive Division Algorithm (SDA) to create contrastive hierarchies for these dialects we can unify these alternations as a single gradation phenomenon involving the feature [+CONTINUANT], both within individual dialects and across all Inuit dialects. I argue that in all dialects, stops alternate with their *contrastively* [+CONTINUANT] counterparts.

Works Cited
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Dresher, B. E. (2002). Determining Contrastiveness: A missing chaper in the history of
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