Introduction. A pattern of root allomorphy in Slovenian, a South Slavic language, opens up important questions for Distributed Morphology (DM: Halle & Marantz 1993) and the PF-interface about the locality domains in which Vocabulary Insertion (VI) operates. We present data that cannot be derived under the assumption that VI proceeds in purely local domains (Embick 2010), and seek a solution in a system where VI may proceed non-locally to some degree (Merchant 2015). However, we show that the latter approach, at the same time, misses some basic generalizations on exponence in Slovenian.

In Slovenian (Toporišič 2000), verbs and participles have the configurations as set out in (1) and (2), partly based on Marvin (2002): in verbs T^0 is part of the word, in participles it spells out an auxiliary.

\[
\begin{align*}
\text{(1) Verb} & \quad \text{Ptc}^0 \\
T^0 & \text{Asp}^0 \\
\sqrt{\text{ROOT}} & \text{v}^0 \\
\text{v}^0 & \text{Asp}^0 \\
& \text{-e,-a,-eva} \\
& \text{T}^0 \\
\end{align*}
\]

\[
\begin{align*}
\text{(2) Participle} & \quad \text{Ptc}^0 \\
T^0 & \text{Asp}^0 \\
\sqrt{\text{ROOT}} & \text{v}^0 \\
\text{v}^0 & \text{Asp}^0 \\
& \text{-e,-a,-eva} \\
& \text{Ptc}^0 \\
& \text{-l} \\
\end{align*}
\]

The exponents of Asp^0 are either theme vowels, such as /-e/ or /-a/, or secondary imperfective suffixes (SCND.IMPERF), such as /-eva/ (Dickey 2003), a system similar to Russian (Gribanova 2015). A relatively small class of roots shows different exponents in verbs as compared to participles (3), both constructed on default imperfective stems. The attachment of the prefix /pre-/ renders the verbal stem telic, which may receive the attachment of the SCND.IMPERF /-eva/ (4). For some roots in (3), the same root-allomorph that occurs with participles also occurs with SCND.IMPERF specifications in Asp^0.

\[
\begin{align*}
\text{(3) Verbs vs. Participles (default IMPERF)} & \quad \text{(4) TELIC verbs vs. SCND.IMPERF verbs} \\
\text{VERB STEM} & \quad \text{PTC STEM} & \quad \text{TELC} & \quad \text{SCND.IMPERF} \\
\sqrt{\text{melj-e-}} & \sqrt{\text{ml-e-l-}} & \text{grind} & \text{pre-}\sqrt{\text{melj-e-}} & \text{pre-}\sqrt{\text{ml-eva-}} & \text{grind} \\
\sqrt{\text{poj-e-}} & \sqrt{\text{p-e-l-}} & \text{sing} & \text{pre-}\sqrt{\text{poj-e-}} & \text{pre-}\sqrt{\text{p-eva-}} & \text{sing} \\
\sqrt{\text{sanj-e-}} & \sqrt{\text{3-e-l-}} & \text{reap} & \text{pre-}\sqrt{\text{sanj-e-}} & \text{x} & \text{reap} \\
\sqrt{\text{ber-e-}} & \sqrt{\text{br-a-l-}} & \text{read} & \text{pre-}\sqrt{\text{ber-e-}} & \text{x} & \text{read} \\
\end{align*}
\]

The allomorphs of the roots in participles, and generally with SCND.IMPERF, involve a missing vowel, regardless of its quality, and also a missing nasal /n/ and glide /j/. It must first be noted that there exists no productive deletion process in the phonology of Slovenian that could derive these changes. Consider the very common counter-examples with non-alternating nasals and glides across verbs and participles: [√goj-i-m] (1P.SG.V) ∼ [√goj-i-l-a] ‘cultivate (F.SG.PTC)’, [√sej-e-m] (1P.SG.V) ∼ [√sej-a-l-a] ‘plant (F.SG.PTC)’, [√sanj-a-m] (1P.SG.V) ∼ [√sanj-a-l-a] ‘dream (F.SG.PTC)’, etc.

Problem. If we adopt the view that roots enter the PF-interface with a pre-specified phonological make-up and so cannot be manipulated by VI (Embick & Marantz 2007; Embick 2010), we cannot analyze the allomorphy pattern as suppletion. Instead, we need to make use of Readjustment Rules to delete the vowels, nasals and glides in the roots, triggered by Asp^0 (with SCND.IMPERF) in (4) and Ptc^0 in (3), with only a fixed list of roots. Under the assumption that Readjustment Rules may only be triggered by local, adjacent heads, the pattern in (4) can be derived because v^0 has a zero exponent, which means that it may undergo deletion called pruning (Embick 2010: 58), rendering Asp^0 adjacent to the root. But this is not an option for the pattern in (3), where the root must be separated by at least Asp^0 from the trigger of the allomorphy, viz. Ptc^0. For this reason, and due to the criticized unconstrained application of Readjustment Rules (Siddiqi 2009; Bobaljik & Harley 2013), we will adopt the view that roots also receive their phonological features at PF by undergoing VI (Bobaljik & Harley 2013; Haugen & Siddiqi 2013; Harley 2014). This means that the pattern above must be analyzed as suppletion derived by VI.
It is the locality constraints on VI that now come to play a crucial role. Embick (2010) proposes that contextual allomorphy can only be triggered by local, immediately adjacent linearized heads (Head Adjacency Hypothesis). Recent inquiry has produced a number of counter-examples to this from Itelmen (Bobaljik 2000), Itzaj Maya (Radkevich 2011) and Russian (Gribanova & Harizanov to appear), all of which have been reanalyzed so as to conform with Head Adjacency (Butler 2012; Bonet & Harbour 2012; Gribanova 2015, respectively). However, Merchant (2015) provides a compelling case against Head Adjacency in Greek and proposes that entire Spans of heads (within an extended projection) may serve as context for allomorphy (Span Hypothesis). The Slovenian data enter the discussion here by giving a clear counter-example to Head Adjacency, but they can be analyzed by using Merchant’s spans.

If the root allomorphy shown in (3) and (4) is analyzed as suppletion, VI needs to have access to heads not adjacent to the root to select between /melj-/ and /ml-/, or /poj-/ and /p-/. VI would need to give a clear counter-example to Head Adjacency, but they can be analyzed by using Merchant’s spans.

Issues with non-locality. By subscribing to the Span Hypothesis, we are able to derive the root-suppletion pattern found in Slovenian. However, it is crucial to acknowledge that what the Span Hypothesis defines are non-local domains for the operation of VI. Because of this, it loses the predictive power that Embick’s Head Adjacency has for deriving simple exponence in complex paradigms. Consider the exponent of the theme vowel /-a/ in Slovenian given in (6). Contrast it with the theme vowel exponence in Slovenian’ in (7), a constructed toy-language. Both paradigms are built on √jok- ‘cry’.

![Participial paradigm in Slovenian](image1)

![Participial paradigm in Slovenian’](image2)

In Slovenian, the theme vowel has systematic stable exponence across a paradigm constructed on the same root. In Slovenian’, the theme vowel may have a different exponent for every gender-number φ-feature combination. Embick’s Head Adjacency Hypothesis predicts that Slovenian’ cannot exist, and that the stable exponence which Slovenian exhibits is the only output that VI can produce in such configurations. Merchant’s Span Hypothesis, on the other hand, predicts that both Slovenian and Slovenian’ are possible: when inserting at Asp⁰, a VI-rule may exist for every gender-number φ-feature combination, referring to context such as (√Ptc⁰, √Asp⁰[SCD,IMP]). If the existence of Slovenian’ turns out to be an empirical question, an issue nevertheless remains: the stable exponence of theme vowels seems to offer a generalization on allomorphic locality across Slovenian (and this is generally true across Slavic languages), but this generalization is explained away as a ‘lexical accident’ under the Span Hypothesis.

**Conclusion.** If the Slovenian data cannot be reanalyzed some other way, the choice between the two hypotheses has considerable implications for the status of the PF-interface. If PF is a fully optimal system, abiding by the Strong Minimalist Thesis (Chomsky 2000), we would expect it to reflect a definition of locality that predicts the patterns in (3)–(4) as well as (6) as interface necessities and not merely optional choices. Head Adjacency pushes for the former but fails to unify the data, while Spans open the door to accidental choices in the system. This presents a crucial dilemma of allomorphic locality that DM must seek to answer.