Reduplication without RED: evidence from *diddly*-infixation

(phonologically-driven reduplication, infixation, language games, questionnaire study)

Reduplication is typically assumed to arise from the realization of an abstract RED morpheme, which receives phonological content by copying a part or all of the base with which it is associated (McCarthy and Prince, 1995). Phonologically-driven reduplication, in the absence of a RED morpheme, has also been proposed (see Yu (2005) for a summary of relevant proposals). However, it is unclear in many of the crucial examples whether the reduplication is in fact phonologically driven, or whether reduplication is involved at all. In this paper, we argue in support of phonological reduplication, using experimental evidence on two English infixation processes.

Diddly infixation is an expressive form of expletive infixation made popular by the television show *The Simpsons*. In the most canonical examples, *diddly* infixes following an initial stressed syllable and triggers reduplication following the infix (e.g. *wel-diddly-elcome*, *Can-diddly-anada*). We designed a questionnaire study to determine speakers' behavior in the face of non-initial stress (e.g. *fantastic*), since those cases are typically involved in expletive infixation (McCarthy, 1982) without reduplication. We would expect that, if the reduplication involved in diddly-infixation is driven by phonological factors, speakers would only prefer to reduplicate in initial-stress examples (where reduplication results in a necessary improvement in prosodic well-formedness) and would not prefer reduplication in examples with non-initial stress (where it is not necessary). On the other hand, if reduplication in diddly infixation is instead driven by a RED morpheme, we would expect it to be an invariant part of the infixation process.

The experiment elicited forced-choice judgments on reduplicative and prosodic preferences in diddly infixation. Speakers indicated a strong preference for non-reduplicated forms when primary stress was non-initial (*fan-diddly-tastic* over *fantas-diddly-astic*) and a strong preference for reduplicated forms when primary stress was initial (*wel-diddly-elcome* over *wel-diddly-come*), as in (1). This is consistent with a phonologically-driven account of the reduplication involved; reduplication is not an invariant part of the process, and appears only in the forms where it is needed to repair prosodically marked structure.

We argue that the forms preferred by the participants of our experiment can be explained in phonological terms using Optimality Theory. The locus of infixation is determined by a high-ranking prosodic markedness constraint requiring primary word stress to be associated with the rightmost foot (1^{ARY}R), as well as a high-ranking Output-Output faithfulness constraint (Benua, 1997) requiring the correspondence of primary word stress between the base and the infixed form (OO-1^{ARY}STR). When primary stress is non-initial (*fàntástic*), diddly infixes before the primary stress. Reduplication in these forms would gratuitously violate the faithfulness constraint INTEGRITY (McCarthy and Prince, 1995): *fàn-dìddly-tástic* satisfies 1^{ARY}R and OO-1^{ARY}STR, as in (2). However, when primary stress is initial (*wélcome*), the only possible infixation point is following the primary stress. Simple infixation following the initial stress creates a marked prosodic structure (**wél-dìddly-come*, **wèl-díddly-come*) owing to violations of 1^{ARY}R and OO-1^{ARY}STR. This problem is resolved via reduplication: by reduplicating the initial stressed syllable (*wèl-dìddly-élcome*), 1^{ARY}R and OO-1^{ARY}STR are satisfied while INTEGRITY is violated (3).

We conducted a second, similar experiment on expletive infixation (McCarthy, 1982) to determine speakers' behavior with respect to that process. In the canonical examples of this process, *fuckin* infixes preceding a non-initial primary stress. In examples with initial primary stress, the infixation process runs into the same problem as we saw above; for infixation to occur, *fuckin* must follow the in initial stress, violating 1^{ARY}R and OO-1^{ARY}STR (**wél-fùckin-come*, **wèl-fúckin-come*). However, with *fuckin*-infixation, speakers choose to repair this problem by simply abandoning the process (4). This can be explained in terms of a difference in the ranking of distinct MORPHREAL (MR) constraints (see Kurisu (2001) and references cited there). MR(diddly) is ranked above INTEGRITY, producing reduplication as the desired repair. MR(fuckin), however, is ranked below INTEGRITY, and the optimal candidate is one where the process is not realized.

In conclusion, the results of the questionnaire study presented here support the hypothesis that reduplication in *diddly*-infixation is phonologically rather than morphologically driven: a morphological account would be unable to account would be unable to capture the distribution of reduplicated and non-reduplicated forms. In this paper, we provide robust evidence which substantiates the claim that reduplication is possible in the absence of a RED morpheme.

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References

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Figures

(1) **Questionnaire responses: *diddly*-infixation.**
Values in bold are significantly different from other responses (p < 0.01, 113 subjects)

	Non-initial Stress (e.g. Fantastic)	Initial Stress (e.g. Welcome)
Reduplication (fantas-diddly-astic, wel-diddly-elcome)	17%	**62%**
Non-reduplication (fan-diddly-tastic, wel-diddly-come)	**56%**	25%
Both	7%	5%
Neither	19%	8%

(2) Non-Initial Stress: Infix without reduplication

fàntástic + diddly	1^{ARY}R	OO-1^{ARY}STR	INTEGRITY
a. ☞ fàn-dìddly-tástic	✓	✓	✓
b. fàntàs-dìddly-ástic	✓	✓	*!*

(3) Initial Stress: Infix with reduplication

wélcome + diddly	1^{ARY}R	OO-1^{ARY}STR	INTEGRITY
a. ☞ wèl-dìddly-élcome			**
b. wél-dìddly-come	*!		
c. wèl-díddly-come		*!	

(4) **Questionnaire responses: *fuckin*-infixation.**
Values in bold are significantly different from other responses (p < 0.01, 119 subjects)

	Non-initial Stress (e.g. Fantastic)	Initial Stress (e.g. Welcome)
Reduplication (fantas-diddly-astic, wel-diddly-elcome)	<1%	7%
Non-reduplication (fan-diddly-tastic, wel-diddly-come)	**89%**	39%
Both	<1%	2%
Neither	10%	**51%**