Optimal Syllabification of First Grade Diminutives in Yiddish

Hans Christian Boas, *University of North Carolina at Chapel Hill*

1. Introduction

This paper examines the formation of first grade diminutives in Standard Yiddish (1). Basic descriptive grammars of Yiddish claim that the most common method of forming the diminutive in Yiddish is by suffixation of a syllabic 'l̩' to the base noun (Weissberg 1988: 229; Birnbaum 1979: 238; Mark 1978: 185). Where applicable, the vowel of the base noun becomes 'umgelautet' (ibid.) (2). Examples of this regular pattern are illustrated in (1):

(1) First grade diminutive suffixation

tɪʃ	+	l	tɪʃl̩	'table' (diminutive)
bux	+	l	bɪxl̩	'book' (diminutive)
ʃtot	+	l	ʃtetl̩	'town' (diminutive)
ʃeps	+	l	ʃepsl̩	'sheep'(diminutive)
kam	+	l	keml̩	'comb' (diminutive)

(Jacobs 1995: 171)

The general process of Yiddish diminutive suffixation displays an interesting variety of forms with respect to the number of segments that appear to the right of the noun. Compare, e.g., the forms in (1) with the data in (2):

(2) First grade diminutive suffixation with ‘d-’epenthesis

ben	+	l	bendl̩	’leg’ (diminutive)
sun	+	l	sindl̩	‘son’ (diminutive)
ʃtejn	+	l	ʃtejndl̩	‘stone’ (diminutive)
fon	+	l	fendl̩	‘flag’ (diminutive)

(Weissberg 1988: 230)

The data in (2) illustrate an exception to the general rule of diminutive suffixation in (1) with respect to the number of segments following the stem of the noun. Thus, nouns ending in ‘n’ exhibit ‘d-’epenthesis between their stems and the diminutive suffix ‘l̩.’ Up to this point, we have only considered the cases of singular diminutives. To fully understand the complexity of ‘d-’epenthesis in Yiddish diminutives, let us look at plural diminutives of nouns ending with an ‘n.’

(3) First grade plural diminutive suffixation with ‘d-’epenthesis

ben	+	l	+əx	bendləx	’legs’ (diminutive)
sun	+	l	+əx	sindləx	‘sons’ (diminutive)
ʃtejn	+	l	+əx	ʃtejndləx	‘stones’ (diminutive)
fon	+	l	+əx	fendləx	‘flags’ (diminutive)

(cf. Weissberg 1988)

As shown in (3), plural forms of nouns ending in ‘n’ have the plural marker ‘-əx’ attached to the sequence containing the epenthesized ‘d’ and the diminutive suffix ‘l’ (3). Examples of this sort seem at first to point at some regular process of ‘d-’epenthesis

which is triggered by a certain phonetic environment, namely the adjacency of the stem-final ‘n’ and the diminutive suffix ‘l’ which is followed by the plural suffix ‘-əx.’ An explanation along these lines, however, is in contrast with the following examples:

(4) a. finland 'Finland'
b. dayn land 'your country' (Jacobs 1995: 172)
c. payn + ləx paynləx
'anguish' 'painfully unpleasant'

(Jacobs 1995: 173)

The examples in (4) differ from the examples in (3) in that there is no ‘d-’epenthesis between the ‘n’ at the right edge of the first morpheme and the ‘l’ at the left edge of the second morpheme. To put it differently, it is unclear why epenthesis takes place in the forms in (3) but not in (4).

In this paper, I show how the regular process of first degree diminutive suffixation in Yiddish can be accounted for within Optimality Theory (4). In particular, I investigate the constraints which are involved in the proper syllabification process of first grade diminutives and present an analysis of the interesting variety of forms which the Yiddish diminutive suffixation exhibits. Moreover, I posit a constraint which restricts ‘d-’epenthesis to apply only in the case of first grade diminutives which are formed with nouns ending in ‘n.’

The paper is organized as follows: Part two outlines the theoretical framework of Optimality Theory (henceforth referred to as OT). Part three introduces the constraints relevant for Yiddish syllabification and shows how first grade diminutives are

syllabified in OT. Part four deals with first grade diminutives that show an apparent exception to the regular rule of diminutive formation, namely forms that epenthesize a ‘d’ between the diminutive suffix ‘l̩’ and the noun, when the noun ends in an ‘n’ (cf. ‘ben’ (leg) -> ‘bendl̩’ (little leg)). Finally, part five summarizes the relevant constraints involved in the syllabification of Yiddish first grade diminutives and briefly discusses several remaining issues for future research.

2. Theoretical Assumptions

The framework I employ to explain first grade diminutive suffixation in Yiddish is Optimality Theory as developed by Prince & Smolensky (1993). Whereas traditional linear and non-linear generative phonology analyze phonological processes as rule-based phenomena, OT proposes that Universal Grammar contains a set of violable constraints that represent universal properties of language. Each language has its own specific constraint ranking in hierarchies of strict dominance. This means that systematic differences between languages are due to different constraint rankings.

From a given input, the function GEN (Generator) creates a set of possible output candidates that are submitted to the function EVAL (Evaluator) which uses the language’s constraint hierarchy to determine the attested (i.e. optimal) output form (cf. Archangeli 1997: 13). The optimal output form is selected by comparing all candidate forms with respect to the degree to which they best satisfy the ranked constraints. Since

all constraints are in principle violable, no single candidate will necessarily satisfy all the constraints of a hierarchy. For a candidate to be the optimal form does not mean that it is not allowed to violate any constraints, but rather that it must violate fewer constraints than its competitors. Constraints are ranked in hierarchies of strict dominance which means that a multiple violation of a lower ranked constraint (or constraints) is less penalized by the grammar than by a single violation of a higher ranked constraint. The candidate which satisfies the ranked constraints best is selected as the *optimal* output form.

Output candidates created by GEN are evaluated in the form of a *tableau*, in which the constraints are ranked from left to right going from highest ranked to lowest ranked. Output candidates appear in the leftmost column, the optimal candidate being marked by a "√". Whenever a constraint is violated, this is indicated by an asterisk "*". An exclamation point "!"represents a "fatal" violation by which a candidate is completely eliminated. Gray areas signify that the relevant constraints are irrelevant to the evaluation of the candidate because of a violation of a higher ranked constraint.

Suppose, for example, that we have three output candidates, A, B and C, which are subject to evaluation by the constraints C1, C2 and C3 (ranked in an order of strict dominance C1>>C2>>C3 by language L), as in the following tableau:

(5) An OT-Tableau

Candidates	C1	C2	C3
A		*!	*
B	*!	*	
√ C			**

The evaluation of the three candidates with respect to the highest ranked constraint C1 shows that candidate B fatally violates C1 and is therefore eliminated, whereas C2 and C3 still compete for the optimal parse. Candidate A incurs a fatal violation of C2 and is thus not among the candidates to be considered for the optimal output form (5). Candidate C shows a double violation of constraint C3. It is, however, our optimal output candidate because it satisfies the higher ranked constraints C1 and C2.

In this section I have outlined the basic mechanisms of Optimality Theory. The following section shows how syllabification of Yiddish first grade diminutives can be accounted for within this framework.

3. Syllabification of "Regular" First-Grade Diminutives

This section presents the relevant OT constraints that are involved in syllabifying the diminutive forms in (1) above. Following Prince & Smolensky (1993), I assume that words are composed of syllables whose structure is determined by the ranking of syllable structure constraints. Furthermore, I adopt Booij's (1995) and Wiese's (1996)

account of syllable structure in German for Yiddish. Thus, the internal structure of the syllable consists of three parts: an optional onset where all prevocalic consonsants are realized, an obligatory nucleus, containing either a vowel or a syllabic consonant, and an optional coda where all postvocalic consonants are realized. The nucleus and the coda form the rhyme. According to Viller (1924), syllables in Yiddish can have three segments both in the onset and in the coda. Following Prince & Smolensky (1993), I adopt the basic Optimality Theoretic constraints ONSET and NOCODA in order to account for the syllabification of the forms in (1):

(6) ONSET
Syllables must have onsets.
(cf. Prince & Smolensky 1993: 85)

(7) NOCODA
Syllables must not have a coda.
(cf. ibid.)

ONSET ranks above NOCODA, reflecting a general tendency of syllables to begin with a consonant and end with a vowel (Archangeli 1997: 7). Tableau (8) shows how this ranking is employed to determine the optimal output form for the syllabification of first grade diminutives ("." is used to indicate syllable boundaries; dotted lines are used to show that the constraints are not ranked) (6):

(8) Syllabification for /ʁʃ + l/

Candidates	ONSET	NOCODA
a. ʁʃ.l̩	*!	*
v b. ʁ̩.ʃl̩		

The first candidate (8a) violates both ONSET and NOCODA.Violation of ONSET is fatal for (8a). The second candidate (8b) does not violate any constraints. It is therefore our optimal parse.

In this section we have seen how the ranking of ONSET above NOCODA results in the optimal (i.e. attested) syllabification of first grade diminutives in Yiddish. The following section examines whether this constraint ranking is sufficient to account for all attested output forms of first grade diminutive suffixation.

4. First grade diminutives with *d* -epenthesis

An apparent exception to the standard rule of diminutive formation are forms that epenthesize a ‘d’. Birnbaum (1979: 239) notes that nouns which end with a final 'n' always epenthesize a 'd' between their stems and the diminutive suffix ‘l̩’ (7). Compare the data in (2), here repeated as (9):

(9) First grade diminutive suffixation with *d*-epenthesis

ben	+	l	bendl̩ ‘small leg’
ʃten	+	l	ʃtendl̩ ‘pebble’
hun	+	l	hɪndl̩ ‘hen’(diminutive)
fon	+	l	fendl̩ ‘flag’(diminutive)
ʃtɛrn	+	l	ʃtɛrndl̩ ‘star’(diminutive)
sun	+	l	sɪndl̩ ‘son’(diminutive)
kɛrn	+	l	kɛrndl̩ ‘pit’(diminutive)

(cf. Weissberg 1988: 230)

It is not clear why ‘d-’epenthesis only occurs with nouns that end with an 'n.' One might suspect that 'd-'epenthesis is triggered by the phonetic environment. More specifically, the transition from the nasal stop ‘n’ to the oral liquid ‘l’ results in the formation of the oral stop ‘d.’ However, ‘d-’epenthesis does not occur in all words in which ‘n’ and ‘d’ are adjacent to one another. Recall the following data from the first section:

(10) fɪnland 'Finland'
dayn land 'your country' (Jacobs 1995: 172)

(11) payn + ləx paynləx
'anguish' 'painfully unpleasant'

(Jacobs 1995: 173)

The examples in (10) and (11) show that ‘d-’epenthesis is not triggered automatically by the adjacency of 'n' and ‘l.’ Comparing the data in (10) and (11) with the data in (9), we observe that this difference might be due to the fact that the ‘l’ is syllabic in (9), but not in (10) and (11). In this connection it is even more interesting to compare the data in (11) with the data in (12).

(12)

ben	+	l̩	+	əx	bendləx
'leg'					'small legs'

(cf. Birnbaum 1979: 239)

When one compares the derived forms in (11) and (12), it might at first seem difficult to understand why the two words ‘paynləx’ and ‘bendləx,’ which both end in

‘-ləx,’ differ with respect to ‘d-’epenthesis. In other words, one would expect either both words to contain an epenthesized ‘d,’ or both words to lack an epenthesized ‘d.’ This difference, however, can be explained when one looks at the nature of the derivational morphemes involved.

The form in (12) contains two different suffixes, namely the diminutive ‘l’ (which triggers ‘d-’epenthesis) and the plural marker ‘əx.’ The form in (11), on the other hand, is derived by suffixation of a single morpheme ‘-ləx’ indicating adjective/adverb. To put it differently, the nature of the ‘-ləx’ sequence in (11) is different from that in the ‘-ləx’ sequence in (12) because the former changes the category of the lexical item from noun to adverb/adjective, whereas the latter indicates diminutive and plural (8).

The above observations suggest that the difference between ‘bendləx’ and ‘paynləx’ can be attributed to the presence of the ‘l’ diminutive suffix in (12). It is the diminutive suffix that triggers 'd'-epenthesis (9). In (11), however, no diminutive suffixation has taken place. This explains why there is no ‘d-’epenthesis in (11). These findings call for a formalization in the form of a constraint which guarantees that epenthesis takes place only when the diminutive marker is added to nouns that end in an ‘n.’ Consider the following constraint on diminutive formation.

(13) N-DIM-NEEDS-D
*ALIGN(n,R,dim,L)

The constraint N-DIM-NEEDS-D, or, in short, NEEDS, in (13) evaluates sequences which consist of the diminutive suffix attached to a word ending with an ‘n.’ It has the effect that it blocks alignment of the right edge of a word which ends with an 'n' (n, R) with the left edge of the diminutive suffix (dim, L). In other words, any word which ends in an ‘n’ and is followed by a diminutive suffix ‘l’ will be ruled out because it fatally violates NEEDS (10). Since the diminutive suffix ‘l’ only attaches to nouns, we need no further reference to the class of words to which ‘l’ can attach. Thus, NEEDS ensures that epenthesis only happens when nouns ending in 'n' try to dock onto a diminutive ‘l’ thereby ruling out forms such as ‘*payndləx’ (11).

To illustrate how NEEDS works, let us return to the singular diminutive forms in (9) and analyze them in tableau (14):

(14) Input /ben-l/

Candidates	ONSET	NEEDS	NOCODA
a)ben.l̩	*!	*	*
b)be.nl̩		*!	
c)ben.dl̩			*!
√d)be.ndl̩			

The preliminary constraint ranking in (14) shows that candidate (14a) violates ONSET fatally. In addition to that, it has no epenthesis between 'n' and 'l̩' and it has a segment in the coda of its first syllable, thereby also violating NEEDS and NOCODA. (14b) does not contain an epenthesized ‘n’ and therefore fatally violates NEEDS which means that it is ruled out as well. Candidate (14c) has a segment in the coda of its first

syllable and thus violates NOCODA fatally. Candidate (14d) does not violate any constraint and is thus the optimal candidate for the parse of /ben-l̩/. The form in (14d) has, however, a major drawback. By syllabifying 'bendl̩' as in (14d), it splits the stem 'ben' in two parts and misaligns the morphological edge of the stem and the edge of the prosodic word (12), thereby violating Consistency of Exponence (cf. McCarthy & Prince 1993: 36). Consistency of Exponence states that "the affiliations of segments with particular morphemes cannot change in the output" (cf. ibid.), unless there are "special situations in prosodic parsing" (McCarthy & Prince 1993: 37) such as epenthesis or deletion.

McCarthy & Prince (1993) claim that proper parsing can be achieved by using alignment constraints which impose certain restrictions on the morphology-prosody interface. In our case, we need a constraint that guarantees proper alignment of the morphological edge of the stem and the edge of the prosodic word, see the constraint in (15), where "σ" represents a syllable:

(15) ALIGN-RIGHT
Align(Stem, R, σ , R)
(McCarthy&Prince 1993: 36)

The constraint in (15) demands that every stem end at the right edge of a syllable (cf. ibid.). Adapting ALIGN-RIGHT into our analysis, we need to revise tableau (14) as in (16), where "|"indicates a stem boundary:

(16) Input /ben-l/

Candidates	ONSET	ALIGN-RIGHT	NEEDS	NOCODA
a)ben.|l̩	*!		*	*
b)be.n|l̩		*!	*	
√ c)ben.|dl̩				*
d)be.n|dl̩		*!		

The form in (16a) is ruled out since it violates ONSET fatally. Candidates (16b and 16d) are excluded because alignment of the stem and syllable violate ALIGN-RIGHT fatally (and (16b) also violates NEEDS)). (16c) is chosen over (16d) because the latter candidate violates ALIGN-RIGHT fatally, which is ranked higher than NOCODA. Even though (16c) violates NOCODA, it is still our optimal candidate. Notice that ALIGN-RIGHT has to be ranked above NOCODA in order to guarantee proper alignment of the morphological edge of the stem and the edge of the prosodic word. If the ranking were reversed, it would produce the incorrect structure of (13d). Since ONSET is among the undominated constraints in German and Yiddish (cf. McCarthy & Prince 1993: 54), it crucially dominates ALIGN-RIGHT.

Let us now consider how our constraints used in (16) choose the output forms for the candidates in (1) which do not exhibit any ‘d-’epenthesis. Their analysis is illustrated by the following tableau (13):

(17) Input /tɪʃ-l/

Candidates	ONSET	ALIGN-RIGHT	NEEDS	NOCODA
a)tɪʃ.|l̩	*!			*
b)tɪ.ʃ|l̩		*!		
√ c)tɪʃ.|dl̩				*
d)tɪ.ʃ|dl̩		*!		

The ordering of the constraints as in tableau (17) show unexpected results with respect to nouns which do not end with an ‘n.’ More specifically, the constraints in (17) choose the unattested output form (17c), which includes an epenthesized ‘d,’ as the optimal output candidate for a noun that does not require ‘d-’epenthesis for the diminutive. Let us take a closer look at how (17c) is chosen as the optimal candidate. (17a) is ruled out, since it violates ONSET fatally. Both (17b) and (17d) violate ALIGN-RIGHT fatally, which leaves (17c) as the optimal candidate. The fact that 'd-’epenthesis occurs only in nouns that end with an 'n' suggests that we need a constraint to restrict epenthesis in cases such as (17c). A constraint capable of preventing epenthesis is as follows:

(18) DEP
Every segment/feature of the output has an identical correspondent in the input.

(McCarthy & Prince 1995)

The constraint DEP belongs to the class of faithfulness constraints which tries to impose identity on the relation between input and output. By introducing DEP into our constraint hierarchy, it is possible to constrain phonological epenthesis. In order to rule

out occurrences of candidates such as (17c) as optimal, DEP needs to be ranked above ALIGN-RIGHT. Consider the following tableau:

(19) Input /tɪʃ-l/

Candidates	ONSET	DEP	ALIGN-RIGHT	NEEDS	NOCODA
a)tɪʃ.|l̩	*!				*
√ b)tɪ.ʃ|l̩			*		
c)tɪʃ.|dl̩		*!			*
d)tɪ.ʃ|dl̩		*!	*		
e)tɪʃ|d.l̩	*!	*	*		*

Ranking DEP above ALIGN-RIGHT ensures that candidates which do not show epenthesis are favored over candidates that show epenthesis, even if they are misaligned and violate ALIGN-RIGHT. (19a) and (19e) violate ONSET fatally. Both (19c) and (19d) show epenthesis which violates DEP fatally. Candidate (19b) is therefore our optimal candidate.

Note that the ranking ONSET>>DEP>>ALIGN-RIGHT>>NEEDS>>NOCODA does not make correct predictions in cases in which a noun ends in 'n' and triggers ‘d-’epenthesis. In these cases, ranking of DEP directly beneath ONSET will rule out candidates which show epenthesis. NEEDS must therefore be ranked above DEP to guarantee that ‘d-’epenthesis can take place:

(20) ONS>>NEEDS>>DEP>>ALIGN-RIGHT>>NOCODA

Compare the following tableau which reflects the new ranking of constraints:

(21) Input /ben-l/

Candidate	ONSET	NEEDS	DEP	ALIGN-RIGHT	NOCODA
a)ben.|l̩	*!	*			*
b)be.n|l̩		*!		*	
√c)ben.|dl̩			*		*
d)be.n|dl̩			*	*!	
e)ben|d.l̩	*!		*	*	*

Candidates (21a) and (21e) are ruled out because they violate ONSET fatally. (21b) does not meet the requirements of NEEDS and is therefore ruled out as well. The forms in (21c) and (21d) both satisfy to ONSET and NEEDS and both violate DEP (because of 'd-'epenthesis). Since (21d) violates ALIGN-RIGHT fatally, (21c) is, just as in (16) above, our optimal output form.

Let us now see whether the new ranking affects the observations made in tableau (19). Consider the following tableau:

(22) Input /tɪʃ-l/

Candidates	ONSET	NEEDS	DEP	ALIGN-RIGHT	NOCODA
a)tɪʃ.|l̩	*!				*
√b)tɪ.ʃ|l̩				*	*
c)tɪʃ.|dl̩			*!		*
d)tɪ.ʃ|dl̩			*!	*	
e)tɪʃ|d.l̩	*!		*	*	*

The new ranking of constraints still gives us the same results as seen in tableau (19), i.e., it chooses candidate (22b) as the optimal parse. The constraint ranking in (20) guarantees that epenthesis takes place in cases in which a noun ends in 'n' (cf. (21)

above) and that there is no epenthesis when the diminutive suffix attaches to nouns that do not end in 'n.'

It remains to be shown whether the constraints in (20) can also account for the data in (10) and (11), where an 'n' is immediately followed by an 'l' without epenthesis taking place. Tableau (23) illustrates the evaluation of the output candidates.

(23) Input /fɪn-land/

Candidates	ONSET	NEEDS	DEP	ALIGN-RIGHT	NOCODA
a)fɪn|d.land			*!	*	**
b)fɪn.|dland			*!		**
c)fɪ.n|dland			*!	*	*
√ d)fɪn.|land					**
e)fɪn|l.and	*!			*	**
f)fɪ.n|land				*!	*
g)fɪn|dl.and	*!		*	*	**

Tableau (23) shows syllabification of /fɪn-land/, which is a compound word. According to Weissberg (1988: 238), Yiddish, like German, has a very productive compounding rule, which allows two nouns to be conjoined freely and recursively. The input in (23) consists of the two nouns 'fin' (a person from Finland) and 'land' (land). The 'l' at the beginning of 'land' is not the diminutive marker, which explains why (23a)-(23c) violate DEP fatally without being "rescued" by NEEDS, which would rule out other candidates which do not have ‘d-’epenthesis. (23g) also violates DEP, as well as

violating ONSET fatally. Candidate (23f) violates ALIGN-RIGHT fatally and (23e) shows a fatal violation of ONSET. The optimal candidate is therefore (23d) (14).

Let us now return to the '-ləx' suffix from (11) above, which changes the lexical category of the noun to which it is attached to an adjective/adverb. Remember that suffixation of '-ləx' does not trigger 'd-'epenthesis. Tableau (24) illustrates how the constraint ranking in (20) evaluates input candidates with a '-ləx' suffix.

(24) Input /payn-ləx/

Candidates	ONSET	NEEDS	DEP	ALIGN-RIGHT	NOCODA
a)payn.|dləx			*!		**
b)payn|d.ləx			*!	*	**
c)pay.n|dləx			*!	*	*
d)payn|dl.əx	*!		*	*	**
√e)payn|.ləx					**
f)pay.n|ləx				*!	*
g)payn|l.əx	*!			*	**

Tableau (24) shows how DEP rules out candidates (24a) through (24c), which show epenthesis. (24d) and (24g) violate ONSET fatally. Candidate (24f) fatally violates ALIGN-RIGHT by misaligning the edge of the stem /payn/ with the syllable boundary. The optimal candidate is thus (24e).

Finally, let us return to 'bendləx' (small legs) in tableau (25). Recall that 'd'-epenthesis in this form is triggered by the diminutive suffix 'l.'

(25) Input /ben-l-əx/

Candidates	ONSET	NEEDS	DEP	ALIGN-RIGHT	NOCODA
√a)ben|.dləx			*		**
b)ben|d.ləx			*	*!	**
c)ben|dl.əx	*!		*	*	*
d)be.n|dləx			*	*!	**
e)ben.|ləx		*!			**
f)be.n|ləx		*!		*	*
g)ben|l.əx	*!	*		*	**

Candidates (25c) and (25g) violate ONSET fatally. (25e) and (25f) do not show epenthesis between the 'n' of the noun and the diminutive suffix ‘l’ as required by NEEDS, which in turn rules out these candidates. The forms in (25a), (25b) and (25d) all violate DEP. However, (25b) and (25d) both violate ALIGN-RIGHT fatally by not aligning the edge of the stem with the syllable boundary. (25a) is therefore our optimal candidate.

5. Summary and Further Issues

In the previous section we have seen that the first grade diminutives which show ‘d-’epenthesis can be properly syllabified within the framework of OT by adding NEEDS, DEP, and ALIGN-RIGHT to our existing inventory of constraints that includes ONSET and NOCODA. DEP prohibits additional segmental material from surfacing in the output candidates, thereby ensuring that forms such as "finland" do not contain epenthesized material. The previous section has also introduced NEEDS to allow for

‘d-’epenthesis in the case of nouns ending in ‘n’ to which the diminutive suffix ‘l’ was attached. We have shown that NEEDS has to be ranked above DEP to override DEP’s restrictive mechanism which disallows inclusion of extra segmental material in the output. The constraint ALIGN-RIGHT ensures proper alignment of the morphological edge of the stem and the edge of the prosodic word. In other words, without ALIGN-RIGHT, ‘d-’epenthesis would result in the misalignment of the edge of the prosodic word and the edge of the stem because of the presence of NOCODA which prohibits any segmental material from appearing in the coda (cf. (14d)). All five constraints were then ranked in the following order:

(26) ONSET>>NEEDS>>DEP>>ALIGN-RIGHT>>NOCODA

We have seen that this ranking accounts for the differences in ‘d-’epenthesis between words like 'bendləx' (small legs) and 'paynləx' (painfully unpleasant). This paper has only covered the small area of syllabification of first grade diminutives with a special focus on ‘d-’epenthesis. Yiddish diminutive formation is, however, a topic much more complex than commonly assumed. As Weissberg (1988: 231) notes: "Die Diminutive im Jiddischen stellen ein Minisystem dar" (‘The Yiddish diminutives are a system of their own’). The different diminutive constructions of Yiddish have their roots in various languages, from which these constructions were borrowed. The first-grade diminutive formation discussed in this paper originates in the German process of diminutive formation, where diminutive suffixes such as '-chen' or '-lein' get attached to the noun, resulting in words like "Tischchen" or "Tischlein" (little table).

Besides first grade diminutives, Yiddish has second grade diminutives, by which the central vowel 'ə' is added to the first grade diminutive resulting in "tɪʃ" -> "tɪʃl̩" -> "tɪʃəl". In addition to the diminutive constructions borrowed from German, Yiddish has borrowed diminutive suffixes from various Slavic languages. The suffixes "-ɪnkɛ" and "-kɛ" yielding such forms as "fusɪnkɛ" (little foot) or "mamɪnkɛ" (mommy) are borrowings from Polish, and the suffixes "-ʃɪ" and "-nju" resulting in words like "mamenju" (mommy) or "toxterʃɪ" (little daughter) are borrowed from Russian and Ukranian.

Clearly, further research must be done in order to account for different phenomena observed in other diminutive constructions in order to arrive at a unified account of Yiddish diminutive formation. The account given in this paper can then be incorporated into these findings.

Endnotes

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1. This paper discusses only first grade diminutive formation with 'l̩' in Yiddish. For a description of second grade diminutive formation see Weissberg (1988: 229) and Katz (1987: 67). Of the three major modern Yiddish dialects (cf. Katz 1987: 38), the standard dialect is described in this paper.

2. During the Middle Ages, many Germanic languages underwent vowel changes known as ‘umlaut’ (also know as *i-mutation*). This partial assimilation involves the fronting of a stressed back vowel in anticipation of a high front vowel or glide in the

next syllable (typically a plural or diminutive morpheme). Since the occurrence of the 'umlaut' does not trigger 'd-'epenthesisis, but is only a reflex of the diminutive suffixation, I do not discuss the role of the 'umlaut' in this paper. For a summary of 'umlauts' in Yiddish, see Weissberg (1988: 84).

3. Note that the 'l' is not syllabic in the plural forms due of the schwa of the plural morpheme which is on the nucleus of the same syllable as the 'l.'

4. For an account of Yiddish diminutive formation within lexical phonology, see Jacobs (1995).

5. The fact that candidate B violates C2, as well, is not relevant because it has already been ruled out by the higher ranked constraint C1.

6. Following Prince & Smolensky (1995), I adopt MAX: Every segment/feature of the input has an identical correspondent in the output. Since syllabification of Yiddish first-grade diminutives does not involve deletion of any segments, I do not consider outputs violating MAX.

7. Besides the exceptional diminutives which show 'd-'epenthesis, there are other exceptions to the general rule of diminutive formation. For example, nouns ending in vowels surface with '-ele' as the diminutive marker (cf. *ku* (cow), *kijele* (little cow), *floj* (flea), *flejele* (little flea)). Nouns ending in 'l' exhibit the same pattern (*lefl* (spoon), *lefele* (little spoon)). Nouns ending in 'n' delete their final consonants (except when it follows an 'r') in the diminutive (*tropn* (drop), *trepl* (little drop), *kuxn* (cake), *kixl* (little cake)). For a detailed description of these diminutives, see Weissberg (1988: 228-231). Since an analysis of other irregular diminutives is beyond the scope of this paper, I will leave it out of the present discussion.

8. A reviewer suggests that a constraint is needed in order to account for the loss of the syllabic quality of 'l̩' when it is followed by the plural suffix 'əx.' However, this seems very unlikely for two reasons. First, the 'l' is non-syllabic in the input for both the singular 'bendl̩' and the plural 'bendləx.' In the case of the singluar diminutive, NOCODA forces the 'l' to become syllabic (otherwise we would have three segements on the coda which would result in a triple violation of NOCODA). Second, the 'l' remains unsyllabic in the case of the plural because of the presence of the plural suffix. In other words, ONSET requires 'l' to be on the onset of the syllable which hosts the plural morpheme. If the 'l' were syllabic in the case of diminutive plurals, we would get a double violation of ONSET (the first for an onset-less syllable hosting a syllabic 'l̩' on its nucleus, and the second one for an onset-less syllable hosting the plural morpheme (cf. 'bend.l̩.əx').

9. Weissberg (1988: 231) notes that d-ephenthesis is observed in similar environments in Middle High German.

10. A reviewer points out that NEEDS does not represent syllabic 'l̩' and is therefore not very effective in accounting for the data. Although NEEDS does not explicitly refer to 'l̩' to determine the optimal output candidate, it is sensitive to the diminutive suffix 'dim' which covers both the syllabic 'l̩' and the non-syllabic 'l.' To put it differently, NEEDS refers to the meaning associated with the input segment 'l.' Depending on whether 'l'

occurs in a singular diminutive form or a plural diminutive it is either syllabified as 'l̩,' or it occurs on the onset of the syllable containing the plural morpheme '-əx.'

11. Note that NEEDS is a very language-specific constraint. Within OT, it is assumed that the grammar of an individual language is due to the language specific ranking of universal constraints. The current data suggest, however, that besides universal constraints there must be language specific constraints too, in order to explain the phenomena described here. This implies that besides universal constraints, each language has a family of language-specific constraints. With respect to language-specific constraints within OT, Russell (1997: 120) observes that these have "not been thoroughly examined within OT," and that "the constraints which appear in a language's hierarchy are not necessarily universal. " This observation leads Russell to suggests that "there are still a number of constraints which presumably form part of Universal Grammar (...), but interspersed among these are other constraints which refer to categories which only that one language is interested in." (1997: 120) Since 'd-'epenthesis in Yiddish occurs in the very limited context of diminutive formation, NEEDS must be a member of the constraint family which is specific to Yiddish.

12.The reader is referred to McCarthy & Prince (1995) and references cited therein for definitions of 'alignment,' 'morphological edge,' and 'prosodic word edge.'

13. It might be objected that the constraints as currently given do not require that 'd' be the epenthetic consonant. Thus, in theory Gen could generate any segment to be epenthesized in this position. However, to facilitate the comparison with diminutives that exhibit attetsted 'd-'epenthesis, I assume that the epenthetic element is interpreted as 'd.' Also notice that although NEEDS does not play a role in the evaluation of the output candidates in (14), it is included for expository reasons in order to facilitate comparison with other tableaux where it is active in evaluating the output candidates.

14. Analysis of 'dayn land' goes along the same lines as 'finland'.

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