

Why *-ling-in?
The pertinacity of a wrong gender

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Abstract

Co-occurrence restrictions among affixes are preferably accounted for through GENERAL structural constraints, to do with separations of word-internal domains, with hierarchical rankings of the affixes involved, with processing complexity, or with word-prosodic patterns. Disallowing PARTICULAR designated affixes to combine with one another by (language-particular) stipulation is considered a theoretical option only to be taken as a last resort. Against this backdrop it is argued here that in the much-discussed German case of diminutive-pejorative-absolutive suffix *-ling* the precluding of further derivational affixation, in particular suffixation with feminine motional *-in*, is not due to any such general constraint; rather, this must be recognised as an instance of an affix-specific selectional restriction of a morphosemantic kind. The chief theoretical interest of this particular case is diachronic. While inner suffix *-ling*, originally a semantically neutral nominalising suffix, was able to acquire a diminutive, pejorative, absolutive-aligned ("passive") semantics, its original gender remained masculine rather than changing to neuter, as would be semantically more suitable. Thus, with the outer, feminine-deriving suffix *-in* being sensitive to the gender of its nominal bases, nouns which are formally masculine, as required by *-in* suffixation, but on semantic grounds ought to be neuter end up being infelicitous.

Keywords

affix co-occurrence, affix order, animacy, "closing" suffixes, derivational morphology, diachrony, gender, German

1. Opening

Co-occurrence restrictions among affixes are often accounted for structurally, by assigning the affixes concerned to separate word-internal domains and by constraining interactions among these domains rather than among individual affixes. Alternatively, processing complexity, hierarchical rankings (e.g., in terms of animacy or semantic scope), or also word-prosodic requirements (e.g., in terms of foot structure) have been invoked as general factors shaping and constraining affix combination in derivation. A more impromptu and less general, hence theoretically less desirable way of curbing morphological combinatorics is to bluntly and language-particularly stipulate that particular designated affixes must not combine with one another.

One derivational affix of German which has been claimed to be derivation-closing, *-ling*, is re-examined here, and the limited interaction with further derivational affixation, in particular its incompatibility with motional, feminine-deriving *-in*, is argued to be due to affix-specific selectional restrictions of outer affixes with respect to gender and gender-associated meaning: categorising *-ling* as closing is ad hoc as well as factually wrong; and processing or animacy do not seem relevant considerations here, either. It is the diminutive and/or pejorative and/or absolute-aligning ("passive") semantics of the German noun-deriving suffix *-ling* which discourages subsequent motional suffixation with *-in*, as this motional female/feminine affix is sensitive to the gender of its nominal bases, and nouns which are formally masculine but on semantic grounds ought to be neuter feel inappropriate. These diminutive-pejorative-absolute senses have only been acquired by *-ling*, which originally was a more neutral nominalising suffix, over time, while its original gender (masculine) remained unaltered, although changing to neuter would have been more suitable for its new meaning.

The moral of the story of **-ling-in* for linguistic theory is that however desirable it is to seek the general behind the particular, sometimes this search is in vain and particulars have to be accounted for particularly. On the more edifying side, there is a diachronic lesson taught by **-ling-in*, and it concerns the pertinacity of morphological categories vis-à-vis the transience of meaning and form in derivation.

2. *-ling*

2.1. The suffix *-ling* in German, usually accompanied by umlaut of the stem vowel or sometimes more drastic and less regular stem alternations, derives nouns from bases of just about all word classes: adjectives (A), numerals (Num), nouns (N), and verbs (V) – as the following selection illustrates, which also illustrates morphological and prosodic distinctions of bases that have now and then, rightly or wrongly, been suggested to make a possible difference in this derivational pattern:

A NATIVE BASE, MONOMORPHEMIC AND MONOSYLLABIC

<i>jung</i>	'young'	<i>Jüng-ling</i>	'(a) youth'
<i>neu</i>	'new'	<i>Neu-ling</i>	'novice'
<i>frisch</i>	'fresh'	<i>Frisch-ling</i>	'piglet'
<i>schwach</i>	'weak'	<i>Schwäch-ling</i>	'weakling'
<i>fremd</i>	'strange'	<i>Fremd-ling</i>	'stranger'
<i>roh</i>	'raw'	<i>Roh-ling</i>	'ruffian; unmachined part'

NATIVE BASE, MONOMORPHEMIC AND DISYLLABIC (TROCHAIC: $\acute{o}\sigma$)

<i>finster</i>	'dark'	<i>Finster-ling</i>	'obscurantist; sinister character'
<i>bitter</i>	'bitter'	<i>Bitter-ling</i>	'centaury; rhodius amarus'

NATIVE BASE, COMPLEX AND POLYSYLLABIC (TROCHAIC OR DACTYLIC: $\acute{o}\sigma$, $\acute{o}\sigma\sigma$)

<i>winz-ig</i>	'tiny'	<i>Winz-ling</i>	'pipsqueak'
(with truncation of <i>-ig</i> , as suggested in Plank 1981: 136)			
<i>wider-lich</i>	'repulsive'	<i>Wider-ling</i>	'repulsive person'
(with truncation of <i>-lich</i> , or directly deverbal, from <i>(an-)wider-n</i> 'repell'?)			
<i>jämmer-lich</i>	'miserable'	<i>Jämmer-ling</i>	'miserable person'
(ditto, or also directly denominal, from <i>Jammer</i> 'misery'?)			

NON-NATIVE BASE, MONOMORPHEMIC AND DISYLLABIC (IAMBIC: $\sigma\acute{o}$)

<i>naiv</i>	'naive'	<i>Naiv-ling</i>	'greenhorn'
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NON-NATIVE BASE, COMPLEX AND DISYLLABIC (IAMBIC: σó)

	<i>nerv-ös</i>	'nervous'	<i>Nervös-ling</i>	'nervous person'
Num	<i>zwei</i>	'two'	<i>Zwil-ling</i>	'twin'
			(unique stem allomorphy)	
	<i>vier</i>	'four'	<i>Vier-ling</i>	'quadruplet'
	<i>erst</i>	'first'	<i>Erst-ling</i>	'first born'
			(with suppletive ordinal base)	
	<i>sieben</i>	'seven'	<i>Sieben-ling</i>	'septuplet'
	<i>dutzend</i>	'dozen'	<i>Dutzend-ling</i>	'one of a dozen newborns'

N NATIVE BASE, MONOMORPHEMIC OR COMPLEX AND MONOSYLLABIC

	<i>Lust</i>	'lust'	<i>Lüst-ling</i>	'lecher'
	<i>Haupt</i>	'head'	<i>Häupt-ling</i>	'chief (of a tribe)'
	<i>Faust</i>	'fist'	<i>Fäust-ling</i>	'mitten'
	<i>Flucht</i>	'flight'	<i>Flücht-ling</i>	'refugee'
			(N deverbal, from <i>flieh-en</i> 'flee': a non-productive subpattern)	
	<i>Haft</i>	'custody'	<i>Häft-ling</i>	'detainee'
			(N deverbal, from <i>hab-en</i> 'have': a non-productive subpattern)	
	<i>Gunst</i>	'favour'	<i>Günst-ling</i>	'favourite'
			(N deverbal, from <i>gönn-en</i> 'allow': a non-productive subpattern)	
	<i>Straf-e</i>	'punishment'	<i>Sträf-ling</i>	'convict'
			(stem-formative -e; or directly deverbal, from <i>straf-en</i> 'punish'?)	
	<i>Spross</i>	'shoot'	<i>Spröss-ling</i>	'offspring; offshoot'
			(N deverbal, from <i>sprieß-en</i> 'sprout'; or directly deverbal from <i>sprieß-en</i> ?)	

NATIVE BASE, MONOMORPHEMIC AND DISYLLABIC (TROCHAIC: óσ)

	<i>Silber</i>	'silver'	<i>Silber-ling</i>	'silver coin'
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(or deadjectival, with truncation,
from *silber-n* 'silvery'?)

NATIVE BASE, COMPLEX AND POLYSYLLABIC (TROCHAIC: óσ)

<i>Ehr-geiz</i>	'ambition'	<i>Ehr-geiz-ling</i>	'overambitious person'
			(or, with truncation of -ig, deadjectival, from <i>ehrgeiz-ig</i> 'ambitious'?)
<i>Schreib-er</i>	'writer'	<i>Schreib-er-ling</i>	'scribbler'

V NATIVE BASE, MONOMORPHEMIC AND VERB-STEM MONSYLLABIC

<i>find-en</i>	'find'	<i>Find-ling</i>	'foundling; erratic boulder'
<i>lieb-en</i>	'love'	<i>Lieb-ling</i>	'darling'
<i>prüf-en</i>	'examine'	<i>Prüf-ling</i>	'examinee'
<i>lehr-en</i>	'teach'	<i>Lehr-ling</i>	'trainee'
<i>misch-en</i>	'mix'	<i>Misch-ling</i>	'person of mixed race, cross-breed'
<i>saug-en</i>	'suck'	<i>Säug-ling</i>	'baby, suckling'
<i>schad-en</i>	'damage'	<i>Schäd-ling</i>	'pest'
<i>stech-en</i>	'prick'	<i>Stich-ling</i>	'stickleback'
			(with e/i alternation as usual in present stems of strong verbs)
<i>zieh-en</i>	'bring up'	<i>Zög-ling</i>	'pupil'
			(with past/resultative form of the stem)
<i>setz-en</i>	'set'	<i>Setz-ling</i>	'young plant'
<i>steck-en</i>	'put in'	<i>Steck-ling</i>	'young plant'

NATIVE BASE, VERB WITH SEPARABLE PREFIX, DISYLLABIC (TROCHAIC: óσ)

<i>an-komm-en</i>	'arrive'	<i>Ankömm-ling</i>	'arrival (person)'
<i>ein-dring-en</i>	'invade'	<i>Eindring-ling</i>	'intruder'

Although many of these derivatives are lexicalised, and some bases are no longer used independently (e.g., *Enger-ling* 'grub', *Sper-ling* 'sparrow', *Schmetter-ling* 'butterfly', *Pfiffer-ling* 'chanterelle', *Schier-ling* 'hemlock', *Schil-ling* 'shilling'), derivation with the

suffix *-ling* is moderately productive in contemporary colloquial German, especially with adjectival and verbal bases.¹

English has this same suffix *-ling*, although here it is far less productive, if at all: *dear* – *darling*, *gray* – *grayling*, *weak* – *weakling*, *prince* – *princeling*, *duck* – *duckling*, *goose* – *gosling*, *sap* – *sapling*, *earth* – *earthling*, *hire* – *hireling*, *find* – *foundling*, *suck* – *suckling*, *change* – *changeling*, *under* – *underling*.² On the CELEX-based calculations of Hay & Baayen (2002: 235), *-ling* is among the least productive affixes of English (number of types: 21; number of hapax legomena: 0; category-conditioned productivity *p*: 0.00). German *-ling* does better on all these counts. However, for present purposes there is no real need to quantify productivity with any degree of precision: "moderately productive" is to mean here that – on the evidence of native speaker judgements, standard handbook accounts, and internet corpus searches – new, semantically (reasonably) compositional and formally (reasonably) regular derivatives CAN be produced and understood beyond those listed in one's mental lexicon; such derivatives will NOT be formed from ANY suitable base, but only when the RESULTING semantics is of the right kind, with the crucial meaning components for *-ling* derivatives in contemporary German to be outlined presently.

2.2. The origin of the suffix is Germanic. The ancestral suffix **-inga*, unlike its flourishing variant of old, nominalising *-ung* (e.g., *find-en* – *Find-ung* 'finding', *prüf-en* – *Prüf-ung* 'examination'), is long defunct in German word formation, although it copiously survives in town and village names in *-ing(en)* (*Altött-ing*, *Gött-ingen*, etc.) and is sporadically re-introduced through English loans (such as *Camping*, *Training*, *Doping*, all neuter, *Pudding*, a rare masculine among the loans). What continues to thrive derivationally, however, is the form of **-inga* that was extended through a segment /l/, originally the coda of stems, in line with the syllabification of derivatives such as Old High German *edil-ing* 'noble-ing' or Old English *lyt(e)l-ing* 'little-ing', *edi.ling*, *lyt(e).ling*, without these inspirational forms themselves getting morphologically re-segmented in

¹ There is a further, non-productive suffix *-lings*, deriving a few manner adverbs from nouns and adjectives, as in *bäuch-lings* 'on the belly' and *blind-lings* 'blindly'; but this cannot be compositionally related to noun-deriving *-ling*.

² The German equivalent of the last example, *Unter-ling*, would seem to be an English calque, with adverbial bases of *-ling* not attested otherwise.

the process (Plank 1981: 74-75).³

In older Germanic, **-inga* and its variant **-unga* had two main functions: (i) to derive nouns for male persons, including patronymics, tribal names, and generally associatives ('persons belonging to X'),⁴ from nouns or adjectives designating characteristic properties or from persons and things which the referents of the derivatives could be characteristically related to (e.g., Old High German *arm-ing*, Old English *earm-ing*, 'poor guy', from an adjective *arm/earm* 'poor'; Old English *Wulf Wonred-ing* 'Wulf son of Wonred'; Old English *Hreðl-ing-as* 'Hreðel and his retinue'; Old English *Eoforwic-ing-as* 'the people of Eoforwic [York]'); (ii) to derive diminutives from nouns and also adjectives (e.g., Old English *hlaford-ing* from *hlaford* 'lord') (Kluge 1926: 11-16, 28-29).

The Indo-European ancestor of noun-deriving **-inga/*-unga* appears to have been an adjective-deriving suffix or suffix combination, **-ŋ-kó/*-en-ko*, as possibly reflected in Old High German *kun-ing*, Old English *cyn-ing*, Old Norse *kon-ung-r* 'king', nominalised from an adjective 'noble, nobly born'.⁵ This adjectival origin accounts for the early gender versatility of the derivatives. It was only when the suffix variants became confined to exclusively deriving nouns and when their functional distribution of labour got sorted out, with *-ung* in German specialising in the deverbal derivation of ABSTRACT nouns and with *-(l)ing* in the derivation of CONCRETE nouns (for persons and rarely animals and things), that gender got firmly fixed: *-ung* would exclusively be deriving feminines and *-(l)ing* exclusively masculines.

2.3. As to the essential meaning and function of this segmentally extended suffix *-ling* in German (which arguably is just one unitary suffix irrespective of the multiplicity of basic word classes⁶), nouns derived with *-ling* usually designate PERSONS (e.g., *Jüng-ling* 'youth'), in biological nomenclature also animals (e.g., *Stich-ling* 'stickleback') and

³ An alternative, if less plausible diachronic story is that *-ling* is the result of a merger of two adjacent suffixes, **-ila* and **-inga*, both with a nominalising and the former with a diminutive force.

⁴ There were also the rare derivatives of animals or things with the characteristic properties designated by their bases, such as Old English *īdel-ing* 'worthless thing', from adjective *īdel* 'empty'.

⁵ A competing etymology sees *kun-ing* etc. as a denominal associative, 'the one (leader) of a kin-group', derived from (Old High German) *kunni* 'race, generation'.

⁶ For arguments in favour of affixal unity despite base-categorical diversity see Plank 1981: Sec. 2.3.5.

plants/fruit (e.g., *Tint-ling* 'Coprinus', a genus of mushrooms, lit. ink-ling, *Setz-ling* and *Steck-ling* 'young plant put in the ground'). Rare inanimate exceptions include *Früh-ling* (a season, 'spring', lit. early-ling), *Fäust-ling* (an apparel, 'mitten'), *Silber-ling* (a coin), *Ries-ling* (a kind of white wine, 'riesling', lit. trickle-ling), and *Bück-ling* (an action, 'deep bow', also a fish, 'kipper', lit. bow-ling).

The ALIGNMENT for German(ic) derivational morphology is essentially ergative-absolutive, and *-ling* fits into this pattern insofar as nouns in *-ling* designate persons or things in the relation of an intransitive subject (*Ankömm-ling* 'arrival', in the sense of 'person arriving', all adjectival and numeral bases) or a direct object (*Prüf-ling* 'examinee', transitive verb bases) relative to the basic predicate, be it verbal, adjectival/numeral, or nominal.⁷ Suffixes like agentive *-er* are ergatively aligned (e.g., with *Prüf-er* 'examiner' the transitive subject derivative corresponding to *Prüf-ling*). In this sense of being absolutive-aligned, *-ling* has a "passive" rather than an "active" meaning.

Other than in biological nomenclature, and especially conspicuously in productively formed designations of people, nouns in *-ling* typically have a DIMINUTIVE and/or PEJORATIVE sense, with the frequently associated connotations of positive or negative affectiveness. As to the animals and plants or fruit designated by *-ling* nouns, they tend not to be huge ones, either, with *Setz-ling*/*Steck-ling* 'young plant' and *Frisch-ling* 'piglet' specifically designating the very youngest plants or animals and with mushrooms forming a prominent subset of these derivatives. Even in a case such as *Häupt-ling* 'chief (of a community as small and lowly as a tribe)', not diminutive or pejorative on the face of it, the *-ling* derivative comes across as a nuance less weighty in comparison with *Haupt-mann* 'head-man'.

Like all noun-deriving suffixes, which are the heads of their words, *-ling* is inherently specified for GENDER, regardless of whether or not a derivative designates people: German nouns in *-ling* are all masculine.

2.4. The derivation of nouns in *-ling* is subject to a complexity constraint, insofar as bases, and especially adjectival or numeral ones, must not themselves be natively

⁷ The agentive derivative *Schäd-ling* 'pest' only SEEMS an exception: the corresponding verb *schad-en* 'damage, harm' governs an object in the dative, and its subject therefore is not strictly ergative/transitive.

suffixed (Plank 1981: 134-139):

A	<i>lang-sam</i>	'slow'	* <i>Lang-sam-ling</i>	'slow sort of person'
	<i>traur-ig</i>	'sad'	* <i>Traur-ig-ling</i>	'sad sort of person'
	<i>treu-los</i>	'perfidious'	* <i>Treu-los-ling</i>	'perfidious person'
	<i>zwan-zig</i>	'twenty'	* <i>Zwan-zig-ling</i>	'vigintuplet'
	<i>betrunk-en</i>	'drunken'	* <i>Betrunk-en-ling</i>	'drunkard'

As seen above, such offensive complexity is sometimes rectified through truncation, especially of suffixes *-lich* and *-ig* (*wider-lich*, *Wider-ling*; *winz-ig*, *Winz-ling*). Non-native adjective-deriving suffixes are permissible as bases of *-ling*: e.g., N *Nerv-en* 'nerves', A *nerv-ös* 'nervous', *Nerv-ös-ling* 'nervous sort of person'. Since such non-native suffixes are all stressed, the rationale of this constraint is perhaps prosodic, with *-ling* nouns preferably forming trochees (óσ). Although nominal and verbal bases will not usually be suffixed, either, there does not seem to be a categorical constraint against them: certainly agentive nouns in *-er* are permissible bases (*Schreib-er-ling* 'scribbler', from *Schreib-er* 'writ-er'), and so are non-productively, non-syllabically suffixed derivatives (e.g., V *gönn-en* 'allow', N *Gun-st* 'favour', *Gün-st-ling* 'favourite, minion'), and perhaps also regular suffixal derivatives (e.g., A *geheim* 'secret', N *Geheim-nis* 'secret', *Geheim-nis-ling* 'trader in secrets'). As such, constraints on bases or also on results of derivation, be they morphological or prosodic, are not unique to *-ling*.⁸

3. *-ling-in

3.1. Now, for designations of persons or also animals of masculine gender there is a potential problem when they are intended to specifically have female reference. German solves this problem by providing the motional suffix *-in* (and also a few non-native equivalents, e.g., *Fris-er* – *Fris-euse* 'male – female hairdresser'), specified as feminine, to be productively added to basic as well as derived masculine nouns in order to bring grammatical gender in line with the sex of the referent:

⁸ See further Plank 1981: Chapter 3 for a fairly comprehensive phenomenology of constraints on derivation, base- as well as output-oriented.

male, MASC:	female, FEM:	
<i>Arzt</i>	<i>Ärzt-in</i>	'doctor'
<i>Löw-e</i>	<i>Löw-in</i>	'lion' (with <i>-e</i> a stem-formative)
<i>Zeug-e</i>	<i>Zeug-in</i>	'witness' (with <i>-e</i> a deverbal derivational suffix, truncated upon suffixation with <i>-in</i> ⁹)
<i>Koch-Ø</i>	<i>Köch-Ø-in</i>	'cook'
<i>Läuf-er</i>	<i>Läuf-er-in</i>	'runner' ¹⁰
<i>Berlin-er</i>	<i>Berlin-er-in</i>	'Berliner'
<i>Sport-ler</i>	<i>Sport-ler-in</i>	'sportsman'
<i>Diktat-or</i>	<i>Dikat-or-in</i>	'dictator'
<i>Mission-ar</i>	<i>Mission-ar-in</i>	'missionary'
<i>Vision-är</i>	<i>Vision-är-in</i>	'visionary'
<i>Redakt-eur</i>	<i>Redakt-eur-in</i>	'editor'
<i>Juwel-ier</i>	<i>Juwel-ier-in</i>	'jeweller'
<i>Doktor-and</i>	<i>Doktor-and-in</i>	'doctoral student'
<i>Demonstr-ant</i>	<i>Demonstr-ant-in</i>	'demonstrator'
<i>Interess-ent</i>	<i>Interess-ent-in</i>	'interested person'
<i>Fant-ast</i>	<i>Fant-ast-in</i>	'fantasist'
<i>Poliz-ist</i>	<i>Poliz-ist-in</i>	'policeman'
<i>Sauf-bold</i>	<i>Sauf-bold-in</i>	'drunkard'
<i>Schlau-meier</i>	<i>Schlau-meier-in</i>	'clever Dick'

Feminine/female-deriving *-in* is very productive, attaching to just about all noun bases of the right gender (masculine) and meaning (males, preferably people). Previous suffixation is no obstacle, again as long as gender and meaning are right: relevant masculine/male-deriving suffixes include native *-Ø*, *-e* (itself hardly productive), *-er/-ler/-ner* (itself very productive), non-native *-or*, *-ar*, *-är*, *-eur*, *-ier*, *-and*, *-ant*, *-ent*, *-ast*, *-ist*, and semi-suffixes such as *-bold* and *-meier*, with examples given above.

⁹ Or else *-in* would have to be analysed as cumulating agentive and feminine meanings, with cumulative exponents very unusual in derivational morphology anywhere.

¹⁰ For obvious reasons, motional suffixation would only be expected in the agentive person-denoting sense, not in the instrumental-locative one of 'small carpet'.

Against this backdrop it is rather surprising (and has often been remarked on) that nouns in *-ling*, mostly referring to persons and other animates and typically construed as having male reference, resist suffixation with motional feminine-deriving *-in* when one would want to make it clear that the intended reference is female:

<i>Jüng-ling</i>	* <i>Jüng-ling-in</i>	'youth'
<i>Naiv-ling</i>	* <i>Naiv-ling-in</i>	'greenhorn'
<i>Zwil-ling</i>	* <i>Zwil-ling-in</i>	'twin'
<i>Sträf-ling</i>	* <i>Sträf-ling-in</i>	'convict'
<i>Ankömm-ling</i>	* <i>Ankömm-ling-in</i>	'arrival' (person)
etc.		

Why is it that **-ling-in* is ill-formed, even though it would seem desirable, from a semantic or pragmatic point of view, to be able to distinguish male/masculine and female/feminine reference/gender? Are there any GENERAL phonological or structural or processing reasons?

3.2. The reason does not seem prosodic. (Sorry, Plank 1981: 142!) It is true, suffix *-in* retracts the stress onto the immediately preceding syllable in derivatives with non-native suffixes if these are not themselves stress-bearing (*il.lus.TRA.tor* 'illustrat-or', *il.lus.tra.TO.rin* 'illustrat-or-ess'), while *-ling* is among the suffixes that do not interfere with the stress of the base (being level 2 in level-ordering approaches), hence it cannot have word stress retracted onto itself when followed by *-in*. But then, when *-in* combines with native bases, it does leave their stress alone, and doubly derived nouns with an inner suffix and final *-in* both unstressed, as would be the case with **-ling-in* (e.g., **NEU.lin.gin*), ARE possible (e.g., *SPORT.le.rin* 'sports-man-ess', *pro.le.TA.ri.e.rin* 'prolet-arian-ess').

On another phonological front, **-ling-in* /liŋ.gin/, despite the recurring syllabic nuclei of /i/ plus nasal, is not really a sequence of identical syllables that would call for haplological deduplication to restore euphony and ease of pronunciation, or for the more drastic measure of wholly blocking such forms when improvement is not possible.

3.3. Looking for structural reasons, *-ling* has been claimed to be a derivation-closing

suffix by Aronoff & Fuhrhop (2002). This claim, based on reverse-dictionary evidence, is plainly mistaken, since further suffixal derivation from nouns in *-ling*, though not frequent, is possible, where semantically appropriate:

<i>Jüng-ling</i>	<i>Jüng-ling(+s)-schaft</i>	'the young', with collective <i>-schaft</i>
<i>Schwäch-ling</i>	<i>Schwäch-ling+s-tum</i>	'(this) weakling business', with abstract <i>-tum</i>
<i>Lehr-ling</i>	<i>Lehr-ling-chen</i>	'little trainee', with diminutive <i>-chen</i>
<i>Lehr-ling</i>	<i>lehr-ling(+s)-haft</i>	'in the manner of a trainee', with adjective-deriving <i>-haft</i>

Further, Aronoff & Fuhrhop (2002) see the "Fugenelement" *+s* as a means to re-open derivability: but then, when *-ling* is followed by suffixes such as noun-deriving collective or abstract *-schaft* or adjective-deriving *-haft*, *+s* is only optional rather than obligatory, and *+s* is impossible before diminutive *-chen* (**Lehr-ling+s-chen*). A Google search invariably returns *s*-less forms for affectively charged diminutives such as *Lehr-ling-chen* 'trainee', *Lieb-ling-chen* 'darling', *Däum-ling-chen* 'Tom Thumb, thimble', *Lüst-ling-chen* 'lecher, debauchee', *Feig-ling-chen* 'coward', *Schön-ling-chen* 'beau', *Pfiffer-ling-chen* 'chanterelle'. It is perhaps their marked colloquialness which accounts for the initial incredulity of many native speakers as to the existence of such double derivatives. Now, since *-ling* is not closing in any strict sense, at least not for further nominal as well as adjectival derivation, *Jüng-ling-in*, *Schwäch-ling-in*, *Lehr-ling-in* etc. should be unexceptionable on these grounds, too; but they aren't. For those suffixes which ARE closing in the sense of Aronoff & Fuhrhop – which, in addition to *-ling*, allegedly include noun-deriving *-in*, *-heit/-keit/-igkeit*, *-ung*, *-e*, and adjective-deriving *-isch* – one would still like to know WHY it is that they have this property while other suffixes do not. On crosslinguistic grounds, none too firm yet, it has been suggested that it is their meaning which predisposes certain derivational categories to "closingness" (Manova 2008 and Sitchinava & Plungian 2009); but it is hard to see why diminutiveness or pejorativeness, of all derivational categories, should perforce preclude further derivation of nouns, especially ones designating persons (if "passive" ones).

German is not like English, either, which – as claimed by Aronoff & Fuhrhop 2002 – only allows one Germanic derivational suffix per derived word and, if valid, would

thereby massively restrict morphological combinatorics. (However, as argued by Hay & Plag 2004: 592-593, the monosuffix constraint is not valid for English, either.)

Neither will level ordering (à la Kiparsky 1982 etc.) help with this particular co-occurrence restriction. With native bases, as in **Jüng-ling-in* etc., there would be no grounds for assigning *-in* to a lower level (1) than *-ling* (2), thereby precluding its occurrence outside it. Whether or not a level-ordering approach is tenable for German, the combinatory potentials of the suffixes involved – with *-in* only deriving nouns from nouns and with *-ling* deriving nouns not only from nouns, but also from adjectives, numerals, and verbs – would dictate that *-ling* occur inside *-in*, with no further constraint on their combination implied.

3.4. In a series of studies including Hay 2002, 2003, Hay & Plag 2004, and Plag & Baayen 2009, an attempt has been made, albeit with special reference to English, to order derivational suffixes in terms of a hierarchy of processing complexity. The emphasis there is on accounting for order rather than on restricting combinations; and what would be accounted for from this perspective is that the diminutive-pejorative suffix *-ling*, less productive and hence prone to be memorised together with stems, ought to come before the more productive motional suffix *-in*, rather than the other way round (**-in-ling*).¹¹ Thus, a suffix sequence **-ling-in* would not offend against, but on the contrary would follow "complexity-based ordering" to the letter. On such an interpretation of the notion of processing complexity, **Jüng-ling-in* couldn't be easier to process, and any further constraining would have to be delegated to some other agencies.

3.5. Yet another general (if perhaps language-particular) attempt to reduce derivational affix combinatorics to order has been made by Eisenberg & Sayatz (2004: Sections 2-3). They really only recognise one single dimension accounting for it all, or at any rate for suffixes for all derivational or also inflectional nominal categories which can be interpreted as quantificational in a wide sense: this semantic dimension is that of

¹¹ To reiterate, these are impressionistic judgements based on native intuitions, handbooks, and internet corpus searches. I am confident they could be confirmed through formal measures of productivity; but this does not affect the main argument here.

ANIMACY,¹² ranging from speaker and addressee on top over kin, humans, animals (higher > lower) to inanimates at the bottom; its morphological correlate is GENDER, with masculine > feminine > neuter as the counterpart of the animacy hierarchy.¹³ The overall system, as Eisenberg & Sayatz see it, is that suffixal categories are ordered from immediate stem-neighbourhood to word-edge in terms of diminishing animacy and correspondingly descending the gender cline MASC > FEM > NEUT. The most suffixally complex derived nouns have verbs as their bases, and the most animate suffix is *-er*, deriving agentive nouns of masculine gender; e.g., *Schreib-er* 'writ-er'. (In fact, *-er* is polysemous and also derives action and instrument nouns, which are also masculine but rather low in animacy, and they still occupy the same innermost position in the suffix chain, the agentive sense of *-er* is considered the primary one.) Immediately following upon *-er* are *-ling* and *-in*; e.g., *Schreib-er-ling* 'scribbler', *Schreib-er-in* 'female writer'. They refer to persons (male or less typically also female with *-ling*, always female with *-in*¹⁴), but so do agent nouns – which makes it hard to understand how *-ling* and *-in* can be less animate than *-er*, and therefore must be outside it on semantic grounds. At least partially, the alignment patterns of *-er* and *-ling* could be drawn on to motivate a higher animacy ranking of the former: *-er* aligns ergatively, while *-ling* aligns absolutely – which means that with transitive verb bases *-er* nouns refer to persons in the role of agent and corresponding *-ling* nouns to persons acted on (e.g., *Prüf-er* 'examiner', *Prüf-ling* 'examinee'). But then, as observed above, *-er* also derives action and instrument nouns, which are not animate at all, while *-ling* also derives absolutes which are at least marginally active in an automotive sense when bases are intransitive (e.g., *Flücht-ling* 'refugee, fugitive', *Ankömm-ling* 'arrival (person)').

¹² It also comes with various other names in the typological literature: e.g., individuation, ego-distance, topic-worthiness.

¹³ Eisenberg in fact posits a fourth gender, highest in animacy: generic, characteristic of weak-declension nouns (traditionally considered masculine).

¹⁴ Eisenberg & Sayatz (2004: 103-104) more specifically suggest that *-ling* is [+sex-marked], rather than [+male], when added to agentive noun bases (which are supposedly unmarked for sex), but unspecified for sex when added to any other bases. Such differential judgements about sex reference are hard to replicate; nor is it easy to see how they bear on animacy. Eisenberg & Sayatz appear to suggest that when *-ling* is unspecified for sex, a "paradigmatic relatedness" to agentive *-er* is "dominant", while when *-ling* is specified for sex, a "paradigmatic relatedness" to motional *-in* is "dominant". Such differential "paradigmatic relatednesses" do not alter suffix orders, though.

To continue all the way to the edge just for completeness, after *-ling* and *-in* come collective suffixes *-schaft* (feminine gender) and *-tum* (neuter), and then diminutive *-chen* and *-lein* (both neuter), with animacy supposedly gradually diminishing, until plural ends the noun's suffix chain, with plural allomorphs themselves distributed in terms of animacy. Much could be said for a role of "animacy" in derivation and number marking;¹⁵ but it is perhaps wise to reserve judgement as to the all-pervasive influence determining derivational suffix order (in German) that Eisenberg & Sayatz attribute to it. The crucial point for present purposes is that even when one grants that "animacy" and correlated gender are at work here and that *-ling* and *-in* are equally "animate", it is conspicuously ad hoc to invoke this equality as a reason for disallowing the syntagmatic combination of the two equals, in whatever order (**-ling-in*, **-in-ling*). Other equals, such as the two diminutives, do co-occur in at least one order (*-lein-chen*, **-chen-lein*). There is no principled reason why what contrasts in meaning, however subtly and however non-contrastive on some superordinate semantic dimension, should have to be in complementary distribution in affix chains. In terms of gender, assumed (with some justification) as a correlate of animacy, *-ling* is masculine and *-in*, whose whole raison d'être is to reverse gender, is feminine: thus, an arrangement of the suffixes in this inside-out sequence would be precisely what is predicted; it is only **-in-ling* which could be identified as a gender offender.

In short, Eisenberg & Sayatz (2004) have no real story for **-ling-in*, either, and the question remains how and why **-ling-in* is found wanting. However, insofar as Eisenberg & Sayatz's story is grounded in semantics, it is on the right track; only the (un)happy ending is missing.

3.6. To face the worst-possible-case scenario for theoretical linguists (and language learners), are we dealing with an arbitrary morphological complexity constraint unaccountably barring just this one combination of suffixes, **-ling-in*, irrespective of possible other constraints on affix combining?

It has once been suggested (Plank 1981: 138, 141-142) that the constraint at issue perhaps is not quite so ad hoc: more generally, in German and elsewhere, combinations of suffixes of the same resulting word-class category tend to be avoided. Among German

¹⁵ And has been said by the present author: e.g., Plank 1980, 1987, 1996, 2002.

native suffixes it is essentially only agentive(-instrumental-locative) *-er* which freely combines with suitable other noun-deriving suffixes (*Läuf-er-in* 'runn-er-FEMALE', *Läuf-er-chen* 'runn-er-DIM', *Läuf-er-schaft* 'runn-er-COLLECTIVE', etc.).

But arguably there is more to it than mere morphological complexity. Yet another way of accounting for the mysterious constraint against **-ling-in* is to appeal to affix-particular morphology and meaning rather than to the form and general pattern of derivation: I submit that nouns in **-ling-in* are infelicitous because, regardless of any other general structural considerations, they are landing speakers in a gender dilemma. And "infelicitousness" is perhaps to be understood as less severe an infringement than "ungrammaticality".

Nouns in *-ling* typically designate persons, where the appropriate unmarked gender is masculine. There should therefore be nothing to militate against motional suffixation with *-in* in case the reference is intended to be female. However, despite referring to persons, especially in productive uses of the suffix, nouns in *-ling* typically are diminutive and/or pejorative and are always absolutive-aligned. The most appropriate gender for such semantics is neuter, with neuter understood as a kind of denial of masculine and feminine.¹⁶ Referents described through diminutively and/or pejoratively modulated expressions are conceptualised as if not yet endowed with or as deprived of a proper personal gender – masculine for males as well as unmarked, feminine (marked) for females. Through absolutive-aligned derivational morphology referents are inherently conceptualised as non-acting or acted-on rather than acting-on, regardless of their actual roles in the clauses where they occur, in opposition to ergative-aligned counterparts – and with masculine and feminine as the unmarked gender for "agents", neuter signals "de-activation".

Although pejorative would seem to go more naturally with augmentative than with diminutive, the opposite affinity instantiated by the conjunction of senses for suffix *-ling* also finds further support in German (and elsewhere), where diminutivisation is sometimes used with derogatory intent (e.g., *Däm-chen* 'dame of dubious reputation', *Lärv-chen* 'person with a pretty face of dubious reputation'). Diminutive, perhaps more so than pejorative, is closer in spirit to absolutive alignment and the attendant

¹⁶ What is being said here about the semantics of gender in German is consistent with, although without subscribing to all particulars of, work such as Köpcke & Zubin 1984 and, with a special focus on suffix-determined gender, Brinkmann 1954.

"passivity" than to ergative alignment and "activity". Overall, then, diminutive, pejorative, and absolutive alignment, the senses acquired by suffix *-ling* and jointly responsible for its peculiar gender dilemma, form a natural semantic cluster.

Being OVERTLY neuter, for purposes of agreement and coreference, is inconsistent with feminine motional suffixation, whether a noun is derived or basic:¹⁷

NEUT	FEM	
<i>das Hünd-lein</i>	* <i>die Hünd-lein-in</i>	'doggie', with diminutive suffix (cf., without DIM suffix: <i>der Hund</i> MASC – <i>die Hünd-in</i>)
<i>das Äff-chen</i>	* <i>die Äff-chen-in</i>	'little monkey', with diminutive suffix (cf., without DIM suffix: <i>der Affe</i> MASC – <i>die Äff-in</i>)
<i>das Kind</i>	* <i>die Kind-in</i>	'child', notionally diminutive
<i>das Kalb</i>	* <i>die Kälb-in</i>	'calf', notionally diminutive, also pejorative for persons of either sex
<i>das Ferkel</i>	* <i>die Ferkel-in</i>	'piglet', notionally diminutive, also pejorative for persons of either sex
<i>das Kamel</i>	* <i>die Kamel-in</i>	'camel' and pejorative for persons of either sex
<i>das Aas</i>	* <i>die Aas-in</i>	'carrion' and pejorative for persons of either sex
<i>das Monster</i>	* <i>die Monster-in</i>	'monster'

¹⁷ Neuter pejorative designations such as *Luder* 'hussy', *Ding(s)* 'thing' (with reference to persons), *Miststück* 'piece of dung', *Gör* 'brat' (gender-converted from feminine *Göre* 'girl'), *Weib* 'broad, dame', and *Mensch* 'slut' (gender-converted from masculine *Mensch* 'man, human being') are typically applied to females in the first place, which precludes motional suffixation with *-in*: **Luder-in*, etc. Ditto for rare, typically derogative masculine nouns with female reference: *Trampel* 'clumsy woman' (also neuter possible), *Hausdrache* 'virago', *Vamp* 'vamp', *Blaustrumpf* 'bluestocking', *Backfisch* 'female teenager': **Trampel-in* etc. Vice versa, nouns with male reference whose gender is feminine, which are likewise typically pejorative, do not meet the MORPHOLOGICAL requirement for motional *-in* suffixation: *Memme* 'sissy' (**Memm-in*), *Tunte* 'fairy' (**Tunt-in*). In the case of gender-converted neuter nouns such as *Wurm* 'poor little worm' (vis-à-vis masculine *Wurm* 'worm', the animal) and *Balg* 'brat, bantling' (vis-à-vis masculine *Balg* 'bellows; hide'), it is probably their inherent diminutiveness which would preclude motional suffixation.

<i>das Ekel</i>	<i>*die Ekel-in</i>	'nauseating person', notionally pejorative (<i>der Ekel</i> 'nausea' is MASC)
<i>das Nashorn</i>	<i>*die Nashörn-in</i>	'rhino', lit. nose-horn, with head of compound non-personal and NEUTER
<i>das Staatsoberhaupt</i>	<i>*die Staatsoberhäupt-in</i>	'head of state', with head of compound non-personal and NEUTER

The claim here is that **Jüng-ling-in*, **Schreib-er-ling-in*, **Prüf-ling-in* etc. are infelicitous in the same way as **Hünd-lein-in*, **Kind-in*, **Aas-in*, **Staatsoberhäupt-in* etc. are. It is as if nouns in *-ling*, although they continue to trigger masculine agreement (**d-as Neuling* 'the-NEUT.SG novice') and masculine co-reference (*d-er Neuling ... *es* 'the-MASC.SG novice ... it'),¹⁸ are LATENTLY neutered owing to the diminutive-pejorative-absolutive force of the suffix. When such latent categorisations are to make their influence felt, it is on derivational rather than on syntactic combinatorics.¹⁹ Accordingly, like overt neuter, latent neuter appears to suffice to discourage the free play of derivational gender alternation in accordance with referential contrasts of sex. There is no way to resolve the dilemma – short of changing the gender of *-ling* to neuter, in line with the predominant diminutive-pejorative-absolutive semantics it has come to be restricted to over the almost two millennia since it was created from Germanic **-inga*, of wider meaning of a sort consistent with masculine gender, or in fact newly attracting rigidly masculine gender after a state of gender vacillation when the suffix was adjective-deriving. But such a change of suffix-determined gender has not happened and shows no signs of happening. On the evidence of the story of *-ing* – and other suffix stories could be added in support – suffix gender is pertinacious in comparison with changeable suffix meaning and suffix form.

To tentatively generalise, what is diachronically most stable about derivational affixes, at least those which are heads of derived words, is their morphology, comprising any morphological specifications (e.g., for gender or inflection class) as well as word-class categorisation and subcategorisation (not of bases but of derivatives); their phonology and semantics are malleable in comparison.

¹⁸ As to co-reference, masculine (or, as the case may be, feminine) is only to be expected since here, unlike with agreement, sex tends to overrule gender. Hence *d-as Luder ... sie* 'the-NEUT.SG ... she', *d-er Vamp ... sie* 'the-MASC.SG ... she', *d-ie Memme ... er* 'the-FEM.SG ... he'.

¹⁹ More generally on the role of covert semantic-pragmatic categories in constraining derivational productivity see Plank 1981: Sec. 3.1.1.

On this account, which hinges on the morphological category of gender in relation to semantics, the fault for the infelicitousness of the combination of *-ling* with *-in* lies with outer *-in*, not inner *-ling*. The female motional suffix *-in* wants a male and masculine base to add on to, and feels somewhat incongruous when the base, though formally masculine, is notionally of a kind where the neuter would be more appropriate, i.e., diminutive and/or pejorative. This is, thus, a case of INWARD-SENSITIVITY, whereas putting the blame for **jüng-ling-in*, **Schreib-er-ling-in* etc. on *-ling*, as being a closing suffix, would mean OUTWARD-SENSITIVITY. Now, it seems that for all kinds of morphological purposes (including the conditioning of allomorphy), and especially when morphological structures are hierarchical rather than flat, inward-sensitivity is the rule and outward-sensitivity the exception (cf. Carstairs 1987: Chapter 5). With *-in* sensitive to what comes before and with *-ling* relatively indifferent as to what comes after, we would have a pattern in German derivation that is toeing the line in point of directionality – and this seems all that is general about the co-occurrence constraint in question.

3.7. In sum, there arguably is no GENERAL reason (level ordering, closingness, processing complexity, animacy/gender hierarchy) why **-ling-in* is out; but it is still out for a reason. The real culprit is diachrony: namely, the great historical time-stability of gender coming with nominal suffixes, normally the heads of their words in German(ic). History has often been assumed to have a hand in determining affix order, insofar as inner-to-outer arrangements tend to mirror the relative chronology of univerbations in the process of grammaticalising affixes from function words. The role of history is a different one here, though: here, what is implicated in otherwise unaccountable selectional restrictions among affixes are old morphological categorisations which have proved to be almost too pertinacious.

This is just one case where an affix-specific morphological-semantic explanation of restricted affix co-occurrence is superior to general structural constraints, or also to general accounts based on animacy or processing complexity. One wonders, though, whether formal position-class accounts of limited morphological combinatorics, as typically holding for flat ("templatic") inflection, are ever appropriate for hierarchical derivation.

4. Closure

In actual fact, to the utter surprise of most native speakers, when you google for words like *Häuptlingin*, *Fremdlingin*, *Neulingin*, *Jünglingin*, *Feiglingin*, *Flüchtlingin*, *Lehrlingin*, *Lieblingin*, *Mischlingin*, *Ankömmlingin* 'female chief, stranger, novice, youth, coward, refugee, trainee, darling, person of mixed race, arrival', you will get quite a few hits. Even the corpus for *Das Digitale Wörterbuch der deutschen Sprache des 20. Jahrhunderts* includes a few such *-ling-in* derivatives. Comfortingly, there are considerably fewer, if any, attestations of *-in* derivatives of other *-ling* nouns. Less comfortably, the distribution is not along semantic lines: unexpected attestations are not really at some distance from the diminutive-pejorative-absolute prototype, while expected non-attestations are at its heart.

So, did they get it all wrong in all the handbooks and specialist articles on German word formation, including this present one? Or are these *Häuptlinginnen* etc. facetious creations, intended to flout a constraint of grammar – one perhaps felt to be sexist? Or do they reflect a genuine innovation, too recent to be noted in the scholarly literature, perhaps intended to rectify a gender-bias of German of old? After all, as suggested here, we are "only" dealing with a matter of semantic infelicitousness, not an infringement of a rule of or a general constraint on word formation. Or is it that internet writers just are blissfully unencumbered with the old-fashioned conventions of both orthography and grammar, and such evidence as culled from the internet should not be considered evidence about real-language grammar?

It seems to me that there is something to be said for three of these four answers. It is the last which is especially worrying, considering the provenance of many a corpus in today's corpus linguistics. The first answer has got to be wrong: morphologists did get it right – though sometimes for the wrong reasons – that *-ling-in* isn't quite right.

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