Human morphology: the invisible person

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1. Introduction

Aronoff (1976:117-121) argues that in English there is a special relationship between words ending in the suffixes *-ist*, *-ism*, and *-ist-ic*, i.e. the following:

(1)   For a given word $x_i ist$, there cannot exist a corresponding word $x_i istic$ unless there also exists a corresponding word $x_i ism$. [...] Nothing of the sort holds for *Xism*. Whether or not one can form a word $x_s stic_A$ for a given word $x_i ism$ is completely independent of $x_i ist$ (though, of course, not all members of *Xism* have corresponding *Xistic* forms). It would seem, then, that *Xism* is the base of *Xistic*, as far as distributional evidence can tell us. (p.120)

Typically the distribution of words of this class is that below.

(2)	a	imperialistic	imperialism	imperialist
		egotistic	egotism	egotist
		hedonistic	hedonism	hedonist
	b	*archaeologistic	*archaeologism	archaeologist
		*dentistic	*dentism	dentist
		*parachutistic	*parachutism	parachutist

Clearly, if the morphological relation proposed in (1) is accepted, the grammar of English needs the rule in (3) to capture the phonological change involved:

(3)   m -> t / s ___ + ic

This rule is not needed, if one derives *-istic* simply from *-ist*. Aronoff is aware of this, and adds the following comment:

(4)   The main reason for first choosing $Xist_N$ as the most plausible base of
$Xistic_A$ is phonological transparency: in order to derive the latter from
the former, all we do is add [ic]. What I have tried to show is that
using   surface   concatenation   (even   underlying   phonological
concatenation)   as   the   primary   tool   in   doing   morphology   is
misconceived. Word formation is a much more abstract matter than
one might at first be led to believe.

We intend to show here that in Dutch the same situation holds as that described
by Aronoff for English, but that this is only the tip of a morphological iceberg.
We discuss, in section 2, the Dutch person-suffix -ist, and its close kins -isme
('abstract noun') and -ist-isch ('adjective'). We will show that, although as in
English, the latter two suffixes are connected, the situation in Dutch becomes
much more interesting when we consider the behaviour of -ist. In particular, the
question is worth asking why this suffix has the shape it has, with (the Dutch
equivalent of) rule (3) in the grammar. Our discussion will lead us to postulate a
separate suffix 'invisible person': its phonetic realization is always null, but its
effects can be observed throughout morpho-phonology. Section 3 will provide
independent motivation for this proposal.

2. -isme, -istisch and -ist in Dutch

2.1. Aronoff's generalization in Dutch. There is good reason to think that
Aronoff's generalization, i.e. (1/2) and rule (3), are worth considering for Dutch
as well. Thus, the data in (2) are mimicked by their Dutch equivalents in (5):

(5)   a   specialistisch   specialisme   specialist
'specialist (A)' 'specialism'   'specialist (N)'
(idem: *militaristisch* 'militaristic', *opportunistisch* 'opportunistic',
naturistisch 'naturalistic', *kapitalistisch* 'capitalistic', *touristisch*
'tourist (A)', *feministisch* 'feminist (A)', *Marxistisch* 'marxist (A)',
individualistisch 'individualistic', etc.)
b   *   *   fluitist
'flute player'
(idem: *bloemist* 'florist', *accordeonist* 'accordeonist', *gitarist*
'guitarist', *loketist* 'counter clerk', *componist* 'composer', *drogist*
'chemist', *typist* 'typist', *saxofonist* 'saxophone player', *finalist*
'finalist', *machinist* 'engine driver', *receptionist* 'receptionist', etc.)

To generally derive formations in -ist-isch from nouns in -ist would clearly create
a host of exceptions. Besides, it would leave unexplained the intuition on the part

of native speakers that the triads in (5a) are all self-evident, whereas attempts at filling the gaps in (5b) give awkward results. Given this, two issues are immediately worth discussing with respect to Dutch. First, the proposal that *-ist-isch* in (5a) be derived from *-isme* has a quality to it that is lacking from English: the final schwa of the base. This obstacle can be overcome, however, when we realize that Dutch has a phonological rule which can be easily motivated, deleting schwas before vowel-initial suffixes (cf. Zonneveld 1978:59-60): *ambassad(e)-eur* 'ambassador', *charm(e)-ant* 'charming', *machin(e)-ist* 'engine driver', and so on. Both rule (3) and Prevocalic Schwa Deletion apply in *-ist-isch* derivations, in that order.

Second, deriving *-ist-isch* adjectives from *-isme* nouns explains an otherwise curious property of the latter. If not for these derivations, *-isme* would be an obligatorily peripheral suffix, i.e. one incapable of being followed by another: an abstract noun suffix (specifically) never subject to the otherwise common process of adjectivization. Notice that we do not shift the burden of this problem away from *-isme* onto *-ist*, because the latter cán be followed (as person suffixes can) by other affixes, as we will demonstrate below.

So, Aronoff claims that there is no clear distributional relation between *-ism* and *-ist*. But at least for Dutch an interesting question may be asked, focusing on the phonological side of the coin: if the grammar contains rule (3), and if *-ist* occurs in triads of the form of (5a), though unrelated to the other two suffixes, how come *-ist* is here phonologically (and semantically) so close to *-ism(e)*, and ends in a *-t*? And furthermore, why is not one of the other person suffixes of Dutch part of those triads, such as the suffix of *advis-eur* 'advisor', *koets-ier* 'coach driver', *fabrik-ant* 'manufacturer', etc.?

Suppose our answer is that *-ist* in (5a) is also derived from *-isme*, involving (3). This immediately explains final *-t*, if we assume that *-ist* is only the surface manifestation of a more abstract form involving a (additional) suffix that serves as the trigger for (3). It is this suffix we call 'invisible person': it derives person-nouns from abstract ones, itself lacking an overt phonetic trace.

It is clear that this assumption raises quite a number of questions, for instance the following. Can we obtain more (phonological and morphological) information on this 'invisible person' other than that it is a suffix? What about *-ist* in (5b): where does this suffix come from? Does the proposal have properties left unexplained by its seemingly simpler (more concrete) counterpart that does not assume the proposed derivational relationship? In other words: is there independent evidence from other morphological or phonological quarters that the 'invisible person' is useful as a grammatical device? The first two questions will be dealt with in the next subsection. The others will be discussed separately, in section 3.

2.2. Underlying representations. Suppose the suffix *-ist* in (5a) actually originates from a more abstract representation: *-ism-suffix*. Given the line of argumentation outlined for *-ist-isch*, we can obtain more information about the underlying form of this suffix-sequence than hitherto revealed. If Prevocalic Schwa Deletion is to play a role, and if we want to maintain rule (3) in some comparatively general formulation, the suffix will have to start with a vowel. This vowel will be 'empty', i.e. probably an unspecified syllabic 'Nucleus' - this in order to avoid having to postulate a deletion rule in the grammar. Let us say that these assumptions are both necessary and sufficient, and that hence the underlying form of *-ist* is *-ism-V*. Thus, the 'invisible person' itself has been reduced to 'V'. This is independently motivated. Observe that we are dealing with what the literature has called the 'Foreign' (or 'Romance') vocabulary of Dutch; here, all suffixes are generally vowel-initial (cf. (6), Backhuys 1986, Trommelen & Zonneveld 1991).

The problem of the status of *-ist* of (5b) seems rather easily solved. We propose that it is an independent person suffix, having simply one shape both underlyingly and phonetically. Thus, our analysis involves 'neutralization' into surface *-ist* from two sources. Again, independent motivation for this situation exists. The suffix *-ist* that goes with *-isme* takes its input from the categories *N* and *A*, and harder to categorize 'roots' (cf. (5a)). In our analysis, this is simply the property *-isme* already has. The independent suffix *-ist* takes its input from *N* and roots, but nót from *A*. These statements must be part of the grammar some way, but cannot be easily formulated if only one suffix *-ist* is involved.[1]

Nothing, of course, stops this latter 'true' *-ist* from taking suffixes; in this way, combinations such as those below come to exist:

(6)   bloem-ist   bloem-ist-erij   *
         'florist'   'florist's'
         drog-ist   drog-ist-erij   *
         'chemist'   'chemist's'
         humor-ist   (humor)   humor-ist-isch
         'comic (N)'   'humour'   'comic (A)'
         parod-ist   (parodie)   parod-ist-isch
         'parodist (N)'   'parody'   'parodist (A)'

The other way around, not all *-isme*s necessarily have both the expected related forms in (5a)-paradigms: a small handful behave idiosyncratically here:

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[1] We know of two exceptions to this generalization: *intern$_A$-ist* 'specialist for internal diseases' and *instrument$_N$-aal$_A$-ist* 'instrumentalist' (**internisme*, **instrumentalisme*). We would not be surprised to find that native speakers analyse these forms as *inter$_r$-n$_a$-ist* and *instrument$_N$-aal$_a$-ist*, respectively, where *r* is a 'root', and *-n-* and *-aal* are non-suffix 'augment'-like units. Such morphological analyses appear to be called for in the grammar anyway, for cases such as *colum-n-ist* 'columnist', *pater-n-al-ist-isch* 'paternalistic' and *marg(e)-in-aal* 'marginal'.

(7)   *   mechan-isme   mechan-ist-isch
                           'mechanism'   'mechanistic'
            (orgaan)   organ-isme   *
                           'organism'
            automobil-ist automobil-isme   *   -
            'motorist'   'motoring'
            *   anachron-isme   anachron-ist-isch
                           'anachronism'   'anachronistic'
            (automaat)   automat-isme   (automat-isch)
            'automaton'   'automatism'   'automatic'
            (magneet)   magnet-isme   (magnet-isch)
            'magnet'   'magnetism'   'magnetic'

Again, the *ist*-based analysis of the adjectives, in the two cases mentioned, would meet difficulties here, resting on 'non-surfacing' underlying representations.

In a number of examples, creating the person-noun as required appears to be 'blocked', in Aronoff's sense, i.e. 'the nonoccurrence of one form due to the simple existence of another' (1976:43). E.g., the existence of English *glory* prohibits *gloriosity* from being formed (Aronoff 1976:44). In our case, (8a) shows that, by the side of *-isme*, there may be an already existing noun of the 'intended semantics'. In some cases, it is possible to derive an adjective directly from the person-noun (8b), also by 'zero-derivation'; this adjective probably blocks *-ist-isch*.

(8)   a   amateur   'amateur (N)'   amateur-isme   amateur-ist-isch
            kannibaal   'cannibal'   kannibal-isme   kannibal-ist-isch
            snob   'snob'   snob-isme   snob-ist-isch
            afor-ist-icus 'aphorist (N)'   afor-isme   afor-ist-isch
       b   despoot   'despot'   despot-isme   despot-isch
            patriot   'patriot'   patriott-isme   patriott-isch
            mongool   'mongol'   mongol-isme   mongol-oïde
            liberaal   'liberal'   liberal-isme   liberaal

The noun *aforisticus* has two interesting properties. First, it shows that the *m-to-t*-rule has *-isch*, *-V* (by our assumption) and now also *-icus* in its righthand context; second, it confirms that just on its own, *-ist* in an *isme*-paradigm does not indicate 'person': an additional suffix is needed to perform this task. If *-ist* itself denoted the person, this word would inexplicably have two suffixes performing the same task.

Finally, we have to explain the very strong tendency for *-isme* to select *-isch* for derived adjectives, and 'V' for persons. As noted by Williams (1981:249-250), this is a common phenomenon in morphology, which he calls the "potentiation" of one affix by another. In English, for instance, *-ity* attaches productively to words

of the form *X-able*, and so forth. The same mechanism will account for the Dutch situation, i.e. the fact that (5a) represents by far the regular picture.

3. Independent evidence for the 'invisible person'

So far, we have given the following support for our proposal that the suffix-sequence *-isme-V* underlies (5a)-cases of surface *-ist*. First, it explains why final *-t* occurs in paradigms that also contain *-isme* and *-ist-isch* (the latter being derived from the former). Second, having two sources for *-ist* helps in allowing two different subcategorization frames for *-ist* words. Notice that we do not feebly propose to double the number of *-ist* suffixes; rather, some of its surface manifestations are derived from a different source. In this section, we will present independent support for that part of *-isme-V* that we have called the 'invisible person', the empty person-denoting suffix.

3.1. HOMEOPAAT. Dutch phonology has a rule which turns [t] into [ts] when [i] follows. It can be found previously discussed in Kooij (1980), although both our exposition and our conclusions differ from his. The largest part of the rule's empirical basis is constituted by two suffixes of the form 'bare *-ie*':

(9)   a   rebél$_N$ - rebell-íe   monárch$_N$ - monarch-íe
          'rebel' - 'rebellion'   'monarch' - 'monarchy'
          onóom$_N$ - econom-íe   democráat$_N$ - democra[ts]-íe
          'economist' - 'economy'   'democrat' - 'democracy'
          orthodóx$_A$ - orthodox-íe   aristocráat$_N$ - aristocra[ts]-íe
          'orthodox' - 'orthodoxy'   'aristocrat' - 'aristocracy'
          synchróon$_A$ - synchron-íe   proféet$_N$ - profe[ts]-íe
          'synchronous' - 'synchrony'   'prophet' - 'prophecy'
      b   precíes$_A$ - precís-ie   erudíet$_A$ - erudí[ts]-ie
          'precise' - 'precision'   'erudite' - 'erudition'
          respóns$_N$ - respóns-ie   garánt$_A$ - garán[ts]-ie
          'response' - id.   'guaranteed' - 'guarantee'
          devóot$_A$ - devó[ts]-ie   intelligént$_A$ - intelligén[ts]-ie
          'devoted' - 'devotion'   'intelligent' - 'intelligence'

With respect to other environments, the rule, first of all, does not apply in underived words (which suggests that it is 'cyclic' in a lexical sense):

(10)   Tahíti   Serengéti   Frascáti   Chiánti   meránti
          Haíti   Maseráti   Djibóuti   pánty   párty

Second, it applies less frequently before a number of other suffixes:

(11)   Helveet - Helvé[ts]-ië   intelligent - intelligén[ts]-ia
         'helvete' - 'Helvetia'   'intelligent' - 'intelligentsia'
         president - presiden[ts]-iéel   ratificeer - rá[ts]-io
         'president' - 'presidential'   'ratify' - 'ratio'

The stress-pattern of neither the input, nor the output seems to play a role in the application of the rule. It is limited to derived words, with -i either in word-final or in hiatus-position. Informally, this rule may be formulated as follows:

(12)   t -> ts / ___ i {V,#}

It does not apply in numerous words in which an 'i'-suffix has a closed rhyme, or an internal onset (13a), nor before numerous other suffixes, even if they have front vowels (13b):

(13) a   predikáat - predikat-íef   despóot - despot-ísme
         'predicate' - 'predicative'   'despot' - 'despotism'
         atléet - atlet-íek   narcót-isch - narcót-icum
         'athlete' - 'athletics'   'narcotic' - 'narcotic (N)'
         ident-íek - ident-itéit   diabét-isch - diabét-icus
         'identical' - 'identity'   'diabetic (A)' - 'diabetic (N)'
     b   proféet - profet-és   advocáat - advocat-úur
         'prophet' - 'prophetess'   'advocate' - 'the Bar'
         groot - grot-ésk   experimént - experiment-éer
         'big' - 'grotesque'   'experiment (N)' - 'experiment (V)'
         kwart - kwart-ét   complimént - compliment-éus
         'a fourth' - 'quartet'   'compliment' - 'complimentary'

Now consider the following data:

(14)   homeopáat - homeopat-íe   psychopáat - psychopat-íe
         'homeopath' - 'homoeopathy'   'psychopath' - 'psychopathy'

Everything suggests that these pairs belong to (12a), also because of their shared semantics: 'field of science or knowledge' for the -ie form, and 'person working in that field' for the base. But then the failure of the [ts]-rule comes as a complete surprise. Is the stem -paat- an uninteresting exception, or is there more to it than that? We think the latter is the case, and that the 'invisible person' plays a crucial part in this. Consider the data below.

(15) a   pátos - patét-isch   theoríe - theorét-isch
          'pathos' - 'pathetic'   'theory' - 'theoretical'
          energíe - energét-isch   apologíe - apologét-isch
          'energy' - 'energetic'   'apologia' - 'apologetic'
      b   a-patíe - a-pát-isch   sym-patíe - sym-pat-íek
          'apathy' - 'apathetic'   'sympathy' - 'sympathetic'
          tele-patíe - tele-pát-isch anti-patíe - anti-pat-íek
          'telepathy' - 'telepathic' 'antipathy' - 'antipathetic'

The examples in (15a) show that for nouns ending in stressed *-íe*, there is available a derived adjective ending in *-ét-isch*, in which *-ét-* replaces *-íe*. What is missing, however, is a **patíe* noun: we find *pátos* instead. (15b) demonstrates that the missing stem surfaces in prefixed words, with the expected stress pattern. These latter words adjectivize differently: they lose the final vowel before a suffix. Given these observations, our analysis is as follows.

First, let as assume that missing **patíe* is blocked by the idiosyncratic existence of *pátos*. The idea that the former underlies the adjective rather than the latter is reenforced by the following data:

(16) a   kósmos - kósm-isch   éthos - éth-isch   b   éros - erót-isch
          'cosmos' - 'cosmic'   'ethos' - 'ethical'   'eros' - 'erotic'
          thérmos(-fles) - thérm-isch   cháos - chaót-isch
          'thermos flask' - 'thermic'   'chaos' - 'chaotic'

Nouns in *-os* either lose this ending before *-isch*, or undergo an '*s->t*' rule (see our discussion in section 3.2). Thus, **pát-isch* or **patót-isch* might have been found, but *patét-isch* is. Second, the fact that *kosm-isch* does not become **kost-isch* shows that, with respect to the input, the '*m->t*'-rule must be limited to the suffix *-isme* itself; the Dutch rule now is:

(17)   ism -> ist / ___ -isch, -icus, -'V'

Third, in prefixed words *-patíe* loses its final vowel by a relatively common process, through which in vowel combinations the first may be deleted: *chíli* 'chili' - *chil-een* 'chilean', *animo* 'animo' - *anim-eer* 'animate', *diné* 'dinner' - *din-eer* 'dine', *therapíe* 'therapy' - *therap-éut* 'therapist', etc. (Notice that there is little reason to assume that the deletee is necessarily a suffix, or that it must be unstressed.)

Now what about the pairs in (14)? Recall that *ts*-rule (12) does not apply to underived forms. Thus, if we assume that *-patíe* is an unsuffixed 'stem', as indicated by our discussion, the non-application of the rule is explained. But what

is our analysis of the original base-words *homeo-páat* and *psycho-páat* if the stem ends in *-ie*? This is where the 'invisible person' pays off:

(18)   *psycho-/homeo-* *patie*
            person-suffix 'V'   -V
            prevoc. vowel deletion   ∅
            stress assignment   *páat*

Notice how the surface situation is the reverse of the underlying one: *homeopáat* is morphologically more complex than *homeopatíe*: in Aronoff's words, word formation is a much more abstract matter than one might at first be led to believe.[2]

3.2. PSYCHOOT. In the previous section we have referred to a rule performing the operation of '*s-to-t*' in some environment: *chaos/chaot-isch* and *eros/erot-isch* in (16b). A brief look at the relevant data shows that words of the following types, combined with the following suffixes, are subject to this rule:

(19)   éros - erot-íek   exegé[z]e - exegét-isch
        'eros' - 'eroticism'   'exegesis' - 'exegetic'
        apocalyps - apocalypt-isch ascé[z]e - ascét-isch
        'apocalyps' - 'apocalyptic' 'ascesis' - 'ascetic'
        extá[z]e - extát-isch   syntáxis - syntáct-isch/-icus
        'ecstacy' - 'ecstatic'   'syntax' - 'syntactic(-ian)'
        psychó[z]e - psychót-isch   poë[z]íe - poét-ica
        'psychosis' - 'psychotic'   'poetry' - 'poetics'
        neuró[z]e - neurót-isch   afa[z]íe - afát-icus
        'neurosis' - 'neurotic'   'aphasia'- 'aphatic (N)'

Note that the rule applies to *s* as well as *z*. There is a striking resemblance with the *ism->ist* rule in (17) in two ways: the strucural change is the same, and there is a considerable overlap between the triggering suffixes. In addition to those in (17), (19) contains *-iek* and *-ica*. Although we have no positive evidence that these can be readily added to *-isme*, it seems appropriate to propose that the *s-to-t* rule is not a completely new one, but that (17) be expanded to cover its effect.

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[2] A very similar case, with a similar analysis, is that of *homo-foob/homo-fobíe* 'homophobic person/homophobic'. Here, the oddity is not in a non-applying rule, but in a failing phonotactic constraint: 'no long vowels before final *-b*'. For discussion, see Zonneveld (1978:49), and Backhuys & Zonneveld (forthc.). In the latter article, we couch our current analysis in terms of 'catalexis' (Kiparsky 1991).

Notice that this (expanded) rule (17) differs considerably from the *ts*-rule. In fact, the suffixes they take as triggers are generally different ones: 'bare' *-ie* is not among the [t]-triggers in, e.g., *precís-ie* (9b).

But now observe the following: 'V' is part of the environment of the *m->t*-rule. What about *s->t*? If we take our proposals seriously, we predict the existence of forms such as those in (20), which bear a hitherto completely opaque relation to their nominal and adjectival kin:

(20)   *neurose/psychose   exegese/ascese*

person suffix	-V	-V
schwa deletion	Ø	Ø
s -> t	t	t
stress ass.	óot	éet

This gives the words *neuróot* 'neurotic person', *psychóot* 'psychotic person', *exegéet* 'exegetist' and *ascéet* 'ascetic', respectively, derived by independently motivated means, given our analysis.

Instead of prevocalic schwa deletion, derivations of this type may also involve prevocalic vowel deletion, as in the derivation of *homeopaat* (18).

(21)   *poezie   hypocrisie*

person suffix	-V	-V
vowel deletion	Ø	Ø
s -> t	eet	iet
stress ass.	éet	íet

A fourth case involves one more step. Notice that part of the processes of suffixation we are discussing here, is 'presuffixal vowel lengthening', in (16b) and the first example of (19) (all remaining ones in (19) have a long vowel, or a final consonant cluster, to begin with). This is again a very common phenomenon in Dutch morpho-phonology; its details need not concern us here, but, in any case, some examples with adjectival *-isch* are: *sátan* 'satan' - *sat[á:]n-isch*, *bábylon* 'babylon' - *babyl[o:]n-isch*, *álfabet* 'alphabet' - *alfab[e:]t-isch*, and so on. Given this process, consider the derivation in (22). Again, each step is independently necessary in the grammar.

(22)   *cháos*

person suffix	-V
s -> t	t
lengthening	oot
stress ass.	óot	(= *chaóot*, 'chaotic person')

3.3. ANALFABEET. An independent theoretical point is illustrated by the example of this section. Consider the following data:

(23) álfabet   alfab[e:]t-isme   alfab[e:]t-isch
      'alphabet' 'litteracy'   'alphabetic'
                  an-alfab[e:]t-isme   an-alfab[e:]t
                  'illitteracy'   'illiterate (N)'

All instances of lengthening can be attributed to the presuffixal position of the relevant vowels, except one: *an-alfabeet* 'illiterate person'. But notice again, that this is the only 'person'-denoting word in the entire group. 'V' again, triggering lengthening, explains why this should be so.[3]

The theoretical point illustrated by this example is the following. As argued in Trommelen & Zonneveld (1986), Dutch is, after Williams (1981), a Right-hand Head Rule language. This is not so only for major lexical category, but also for its gender system. Thus, suffixes are associated with one specific gender, but prefixes are not. If we take as our example the choice between the two definite articles *de* ('common') and *het* ('neutral'), determined by gender, the following is typical of what we find:

(24) raar]$_A$ - de raar-iteit]$_N$ de missie]$_N$ - de trans-missie]$_N$
      'rare' - 'curiosity'   'mission' - 'transmission'
      normeer]$_V$ - de normeer-ing]$_N$ de aktie]$_N$ - de re-aktie]$_N$
      'standardize' - 'standardization' 'action' - 'reaction'
      de magneet]$_N$ - het magneet-isme]$_N$ de harmonie]$_N$ - de dis-harmonie]$_N$
      'magnet' - 'magnetism'   'harmony' - 'disharmony'
      probeer]$_V$ - het probeer-sel]$_N$ het conto]$_N$ - het dis-conto]$_N$
      'try' - 'experiment'   'conto' - 'disconto'

Relevant in this context is the behaviour of 'person' suffixes. As (25) shows, they take the gender associated with *de*. But the generalization is not a general semantic one on 'human words', because the diminutive suffix ('little Noun') takes *het*, éven if the input (and output) is human:

(25) anoniem]$_A$ - de anoniem-us]$_N$ de man]$_N$ - het mann-etje]$_N$
      'anonymous (A)' - 'anonymous N)'   'man'
      de senaat]$_N$ - de senaat-or]$_N$ de vrouw]$_N$ - het vrouw-tje]$_N$
      'senate' - 'senator'   'woman'

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[3] Again, a very similar case, with a similar analysis, is the unexpected lengthening found in cases such as *Pakistan/Pakistaan* 'Pakistan/Pakistani'. For discussion, cf. Backhuys & Zonneveld (forthc.)

het schip]$_N$ - de schipp-er]$_N$ de koning]$_N$ - het konink-je]$_N$
'ship' - 'skipper'   'king'
het dorp]$_N$ - de dorp-eling]$_N$ de sopraan]$_N$ - het sopraan-tje]$_N$
'village' - 'villager'   'soprano'
het kapitaal]$_N$ - de kapitaal-ist]$_N$ de acrobaat]$_N$ - het acrobaat-je]$_N$
'capital' - 'capitalist'   'acrobat'

Naturally, also the diminutives of all nouns in the lefthand columns of (25) take *het* as their article. Given this, observe the following interesting observation: *het alfabet* shows that this noun has neutral gender. But in *de analfabeet*, gender is common. This cannot be due to the prefix, which does not determine gender. To say that it is due to vowel lengthening would be very peculiar indeed. The source must be a suffix, and that suffix, we propose, is '-V'. The fact that this proposal has given satisfactory results throughout the cases discussed in this article, strikes us as confirmation of our views.

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