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Morphology
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The Remarkable Yiddish Pseudo-Infinitive ¹: Evidence for Phases?

1. Basic Morphological Properties of the Yiddish Predicate Cleft

In a Yiddish predicate cleft, the topic constituent must bear infinitival morphology or past-participial morphology ².

- (1a) Essen est Max a fish.
to-eat eats Max a fish
As for eating, Max is eating a fish.
- (1b) * Es est Max a fish.
(1c) * Est est Max a fish.
- (2a) Essen hot Max gegessen a fish.
to-eat has Max eaten a fish.
As for eating, Max has eaten a fish.
- (2b) Gegessen hot Max gegessen a fish.
eaten has Max eaten a fish
As for having eaten, Max has eaten a fish.
- (2c) * Es hot Max gegessen a fish.
(2d) * Est hot Max gegessen a fish.

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² Throughout this paper, I will make use of the following terminology. I will use “clefted VP” and “clefted V” to mean the VP or V in the main clause which is the ‘copy’ of the infinitive or participle in the topic position of the clause. The term “clefted constituent” covers both clefted VPs and clefted Vs. I will use “topic infinitive” and “topic participle” to mean the infinitive or participle in the topic position of the clause. The term “topic constituent” covers both.

As the glosses indicate, there is a semantic difference between (2a) and (2b). Roughly, infinitival morphology on the topic constituent indicates that the topic is a general event type, while past-participial morphology specifies the topic to be a “completed” event. The participial morphology can only appear on the topic constituent if the clefted constituent is participial. Thus, if the clefted V is in the present tense, the initial, topic copy of the V must bear infinitival morphology.

(3a) *Gevust hob ikh es gevust.*
known have I it known
As for having known, I have known it.

(3b) * *Gevust veys ikh es.*
known know I it
As for having known, I know it.

The impossibility of (3b) might be semantic; note the strangeness of its English gloss.

Finally, observe that within topic constituents, as within Yiddish more generally, infinitive morphology cannot co-occur with any participial morphology.

(4a) * *Gevustn hob ikh es gevust.*
(4b) * *Gevusn hob ikh es gevust.*

This suggests that a topic infinitive truly does contain infinitival features. Any other account of the impossibility of (4) would have the suspicious property of offering one explanation for the impossibility of “gevustn” as a topic infinitive, while offering an entirely separate one for the impossibility of “gevustn” as a clefted V.

2. The Pseudo-Infinitive

When the clefted VP is in the *present tense* and the V head has a special infinitive allomorph, that special allomorph does not appear in the topic infinitive.

(5a) *Er vilt mir dos gebn.*
He wants me that to-give
He wants to give me that.

(5b) * *Er vilt mir dos gibn.*

(6a) Gibn gibt er dos mir.
give-inf gives he that me
As for giving, he is giving it to me.

(6b) * Gebn gibt er dos mir.

(7a) Er vilt es visn.
He wants it to-know
He wants to know it.

(7b) * Er vilt es veysn.

(8a) Veysn veyst er es.
know-inf knows he it
As for knowing, he knows it.

(8b) * Visn veyst er es.

The infinitival forms seen in the topic infinitives of (6a) and (8a) are used nowhere else in the language³. We will adopt the term “pseudo-infinitive” to mean an infinitival form of a V, which can appear within a topic infinitive but nowhere else in the language.

3. Is the Pseudo-Infinitive Just a “Regularized” Form?

From (6a) and (8a), one might conclude that the base of the topic infinitive is always just the regular present tense allomorph of the root. After all, if a V does not have a special infinitival allomorph, the base of the V’s infinitive in Yiddish is simply its present tense allomorph. So, on this hypothesis, if one clefts a verb without a special infinitive allomorph, the regular infinitive for that V will surface. It is only by looking at Vs with infinitival allomorphs that we discover the true nature of the predicate cleft’s topic infinitive. Perhaps the topic infinitive is constructed “on-line”, and so there is a “regularization” of any stored, irregular infinitives.

Although tempting, when one looks to a verb that has full suppletion in its present tense paradigm (in Yiddish, there is only one: “zayn”, *to be*), the pattern seems to be more complicated than this.

(9a) Binen bin ikh in Nyu York.
am-inf am I in New York
As for being, I am in New York.

³ In this regard, there is a superficial similarity here to the “Yiddish Nominal Stem Construction”, a structure that will re-enter the discussion later.

(9b) Binen binstu in Nyu York.
are-inf are-you in New York
As for being, you are New York.

(9c) Izn iz er in Nyu York.
is-inf is he in New York
As for being, he is in New York.

(9d) Zaynen zaynen mir in Nyu York.
are-inf are we in New York
As for being, we are in New York.

(9e) Zaynen zaynt ir in Nyu York.
are-inf are you in New York
As for being, y'all are in New York.

(9f) Zaynen zaynen zey in Nyu York.
are-inf are they in New York
As for being, they are in New York.

For each sentence in (9), no other allomorphs of the verb “zayn” are acceptable as the base of the topic infinitive. Now, as the plurals in (9d) – (9f) reveal, the regular present form of the root is “zayn” (or possibly “zay”; note the imperative form “zay” and the infinitive “zayn”). Nevertheless, we do not use that form of the root for the topic infinitives in (9a) – (9c). Instead, the pattern seems to be that, at the very least, the base of the topic infinitive is a “phonological copy” of the allomorph the V takes in the main clause⁴.

4. Is the Pseudo-Infinitive Just a Phonological Copy?

This “phonological copying” proposal is, however, incorrect as stated. Consider the data below.

(10a) Hobn hot er a bukh.
have-inf has he a book
As for having, he has a book.

(10b) Gibn git er mir a bukh.
give-inf gives he me a book
As for giving, he is giving me a book.

⁴ David Pesetsky points out (p.c.) that another possibility is that there is no single word “to be”, but rather three defective verbs. Each topic-infinitive in (9) is based on the regular present tense allomorph of each of those verbs. This is an idea that should be discussed more completely in future work.

- (10c) * Hon hot er a bukh.
 (10d) * Hoen hot er a bukh.
 (10e) * Gin git er mir a bukh.
 (10f) * Gien git er mir a bukh.

(11a) Hobn hostu a bukh.
 have-inf have-you a book
As for having, you have a book.

(11b) Gibn gistu mir a bukh.
 give-inf give-you me a book
As for giving, you are giving me a book.

- (11c) * Hon hostu a bukh.
 (11d) * Hoen hostu a bukh.
 (11e) * Gin gistu mir a bukh.
 (11f) * Gien gistu mir a bukh.

Although the surface phonological form of the finite allomorph of “have” in the sentences above is “ho-” and not “hob-” (as it is throughout the rest of the paradigm), and the finite form of “give” appears as “gi-” and not “gib-”, the topic infinitives must have as their base the allomorphs “hob-” and “gib-”.

In light of these facts, an explanation which *retains* the idea that the topic infinitive is derived by phonological copying would be the following. Suppose that the forms “git / gist” and “hot / host” are phonologically derived from the underlying forms “gibt / gibst” and “hobt / hobst”⁵. Accepting the effects of /b/-elision here allows us to explain the impossibility of (10c) – (10f) via appeal to Lexical Conservatism. Let us suppose that the base for the topic infinitive is chosen by picking that *independently listed* allomorph of the V which is closest phonologically to the finite allomorph in the main clause. Thus, (10c) – (10f) are out because “ho-” is not an independently listed allomorph of *have*, it being phonologically derived from “hob-”. “Hob-”, however, is an allomorph of *have*, and it is more phonologically parallel to “hot” and “host” than the standard infinitive allomorph “hub-”. A parallel explanation would rule out (11c) – (11f) based on the fact that there is no allomorph “gi-” for *give*.

However, the data in (10) and (11) are also consistent with an analysis in which the topic infinitive and the matrix V must be *morphologically* parallel, rather than phonologically parallel. Suppose that the base of the topic infinitive is

5 A caveat: the cluster simplification rule removing the /b/ from /bst/ and /bt/ must be specifically tied to the roots for “have” and “give” (and possibly a few others), since the phonology of Yiddish does not generally ban such clusters. “Shraybst” and “shraybt” are perfectly legitimate surface forms. Nevertheless, that there is a phonological rule at play here is supported by the fact that *all* instances of “hobt” and “gibt” – whatever be their morphological features – are outlawed. Note that the 2nd plural of “hubn” is also “hot” and the 2nd plural of “geb’n” is also “git”, rather than the expected forms “hobt” and “gibt”.

simply required to *be* the allomorph which the V takes in the matrix clause. This is consistent with the data in sections (1) – (4). It is also consistent with the facts in (10) and (11). Note that the present tense allomorph of *have* in (10) is “hob-”, “ho-“ being derived via our aforementioned cluster simplification rule. Thus, the base of the topic infinitive in (10) must be “hob-“. Since there is no /b/-elision triggered in the environment /bn/, the underlying “b” in the pseudo-infinitive is never deleted. An underlying morphological identity between the base of the topic infinitive and the finite allomorph is obscured by a subsequent phonological rule.

What might decide between these two hypotheses? We’ll return to this question after we introduce one last surprising twist in the data.

5. The Disappearance of the Pseudo-Infinitive in Certain Tenses

Strangely, the pseudo-infinitive only arises when the clefted constituent is in the present tense. If the clefted constituent is headed by an infinitive or participial form of the V, the listed infinitive allomorph of the V is used.

(12a) Gebn vilt er mir dos gebn.
 to-give wants he me that to-give
As for giving, he wants to give me that.

(12b) Visn vilt er es visn.
 to-know wants he it to-know
As for knowing, he wants to know it

(12c) * Gibn vilt er mir dos gebn.

(12d) * Veysn vilt er es visn.

(12e) * Gibn vilt er mir dos gibn.

(12f) * Veysn vilt er mir dos veysn.

(13a) Visn hot er es gevust.
 to-know has he it known
As for knowing, he has known it.

(13b) * Veysn hot er es gevust.

(13c) * Vusn hot er es gevust.

(14a) Shpringn hob ikh geshprungn.
 to-jump have I jumped
As for jumping, I have jumped.

(14b) * Shprungn hob ikh geshprungn.

(15a) Gayn bin ikh gegangn.
to-go am I gone
As for going, I have gone.

(15b) * Gangn bin ikh gegangn.

Although both our nascent hypotheses make sense of the facts in (12), they are neither yet consistent with the facts in (13) – (15). The problem is that the sub-regular past-participle allomorphs of the verbs “shpringn” and “gayn” are independently listed allomorphs of the verbal root. This is shown by the existence of the nominalizations “a shprung” (a jump) and “a gang” (a walk, gait).

Further evidence that the past-participle allomorph is a real allomorph of the main clause V comes from Yiddish’s “nominal stem construction”. In this construction, a nominalization of the V, which might not exist anywhere else in the language, appears with the light verb “ton” (do). Often times, the nonce nominalizations required by this construction are based off of the sub-regular past-participle allomorph of the verb.

(16a) Ikh vil loyfn.
I want to-run
I want to run.

(16b) Ikh bin gelofn.
I am run
I have run.

(16c) Ikh vil a lof ton.
I want a run to-do
I want to ‘do a run’ = I want to run a bit.

(16d) * Ikh vil a loyf ton.

However, the sentences in (17) show that the topic infinitive cannot be based on the past-participle allomorph of “loyfn”, despite the fact that other morphological processes reveal that allomorph to be accessible to other nonce creations.

(17a) Loyfn bin ikh gelofn.
to-run am I run
As for running, I have run.

(17b) * Lofn bin ikh gelofn.

The problem which (17) raises for our “phonological copying” account is that (16c) shows that the participial allomorph “lof” of *run* is an accessible

independently listed form. Thus, using “lof” as the base of a topic infinitive wouldn’t violate Lexical Conservatism, and would create a more phonologically parallel form than the regular infinitive “loyfn”. Why, then, is (17a) the only permitted option?

The problem which these data raise for our “allomorph-matching” account is that the main clause allomorph of *run* in (16) is “lof-“; that “gelofn” is decomposed into “ge-“ and “lof” is argued by (16c) and the fact that “ge-“ is a regular past-participle prefix. But the allomorph-matching account hypothesizes that the base of the topic infinitive must be the allomorph of the V found in the main clause. So, why must the topic infinitive of a clefted “gelofn” be “loyfn” and not “lofn”?

One possibility might be, informally speaking, that the “recipe” for creating the topic infinitive simply differs when the clefted constituent is in the present tense. Support for this rough idea is found in another strange property of the topic infinitive. When the clefted constituent is present tense, the infinitival suffix of the topic infinitive is always the regular, syllabic infinitive suffix /-en/ (sometimes written orthographically as “-n”). For example, the infinitive of the verb “to see” is the monosyllabic “zen”, in which the root “ze-“ appears to combine with an irregular non-syllabic “-n” suffix. If “zen” is clefted in the present tense, however, the topic infinitive is “zeen” (two syllables), not “zen”.

(19a) Zeen ze ikh Maxn.
 see-inf see I Max-acc
 As for seeing, I see Max.

(19b) * Zen ze ikh Maxn.

Note that neither of our two hypotheses can yet account for the data in (19). We will return to this puzzling fact later. For now, simply note that this constraint on the appearance of the infinitival suffix is lifted when the past participle of “see” is clefted.

(20a) Zen hob ikh Maxn gezen.
 to-see have I Max-acc seen
 As for seeing, I have seen Max.

(20b) * Zeen hob ikh Maxn gezen.⁶

The grammaticality of the infinitive ‘zen’ in (20a), and the absence of ‘zeen’ in this context, strongly suggest that when infinitival and participial VPs are clefted, the

⁶ The star given for (20b) is something of an idealization. Sentence (20a) was given by my primary informant as the translation for its gloss. When asked about the acceptability of (20b), however, he reported that he was not sure enough to render a judgment. I have interpreted these facts as indicating that (20b) is not part of his grammar.

topic infinitive is simply the real, stored infinitive of the V, and no special processes of topic infinitive creation are employed.

6. The Relevance of Phases

Now let us ask why the pseudo-infinitive appears if and only if the clefted constituent is in the present tense. What is so special about the *present* tense?

Happily, there *is* something syntactically special about clefted present tense VPs in Yiddish. Yiddish has been argued to be V2 within its IP (Diesing 1990). If true, this would entail that the Spec of IP is what counts as the “initial position” for the V2 structure of the clause, and that the V following the initial position is in I. Now, as all the examples we’ve seen demonstrate, topic constituents target this initial position. Therefore, whenever the clefted constituent is present tense, the matrix copy of the V head is in I, while the topic infinitive is in Spec IP, a rather local relationship⁷. Finally, since present is the only simple tense in Yiddish, it is *only* when the clefted constituent is present tense that this local relationship between it and the topic constituent obtains.

Now, although there is this intuition that the relationship between the topic constituent and the matrix V is “very local” when the V has moved to I, are there any *independently motivated* notions of “locality” which it might be divining? That is, are there domains that contain both the Spec IP and the I, but exclude heads contained in lower vPs and CPs? Certainly there are, and one in particular stands out here: the C-phase. That is, when the clefted constituent is present tense, both it and the topic infinitive are spelled out within the same minimal phase, the C-phase. Let us assume that, with respect to the creation of the topic infinitive, *this* is the special property distinguishing the clefting of present tense VPs from the clefting of infinitives or participles.

Let us now recall our two nascent hypotheses regarding the creation of the topic infinitive: the “phonological-copying” account and the “allomorph-matching” account. Under which of these accounts does it make sense for the processes creating the topic-infinitive to be sensitive to whether the infinitive is spelled-out in the same phase as its matrix partner?

⁷ A question naturally arises here about the possibility in Yiddish of predicate-clefting out of subordinate clauses. Unfortunately, although long-distance predicate clefting has been reported in some papers to be acceptable (Davis and Prince 1986, Hoge 1998), my primary informant rejects all instances of long-distance predicate clefting, and I haven’t yet been able to speak with native informants who accept long-distance predicate clefting. Moreover, for those dialects reported to accept long-distance predicate clefting, it isn’t clear from the documented evidence whether the pseudo-infinitive is lost when the clefted VP is infinitive or participial. At the moment, this remains a question for future research.

Under the phonological-copying account, a natural idea might be that the constraint which requires that the topic infinitive be phonologically parallel to the clefted V can only “see” as far as the edge of the next phase. That is, the content of the constraint might be something like “lexically identical heads must be phonologically parallel”, and its domain might only be individual phases. This is natural since phases (excluding their edge) are assumed to be Spell-Out domains. Consequently, if the clefted V is outside the domain of the constraint as it applies to the topic infinitive, no “phonological parallelism” between the two can be enforced.

Although this might sound to some like a promising approach, before we continue to sharpen this idea, let us worry why there should ever be a “parallelism constraint” of the kind envisioned. Why should two heads be required to be phonologically parallel just because they contain the same lexical items? Even assuming that the topic constituent and the clefted constituent are syntactic copies related by movement, why should language have a need to keep the copies within a chain “phonologically parallel”, given that most often only one of those copies will ever be pronounced? Let us see if we can make a better start with the “allomorph-matching” account.

It is commonly said that Spell-Out *maps* a syntactic structure to an initial phonological representation. If we take this ‘mapping’ assumption at face-value, it follows that within a single Spell-Out domain (phase), a particular head can only receive a single morpho-phonological realization. Now, let us suppose that copies are not distinguished for the purposes of this mapping⁸. It follows that any two chain members in the same phase will be assigned the same morpho-phonological content. All copies of a given head within a given phase will be filled by the same allomorph. Moreover, let us suppose that, although Spell-Out always has the property of being a mapping, other typical properties of this mapping -- such as how certain feature bundles are phonologically expressed -- might be sometimes upset as a result of the natural functioning of this mapping procedure. Stated in OT-ish terms (which we won’t deliver on), constraints on *how* to spell out a particular morpho-syntactic “bundle” are violated in order to keep the Spell-Out relation a mapping. Thus, whenever two copies of a head are within the same phase, we will have two allomorphically identical copies of those heads in the output, *even if one of those allomorphs is not the one demanded by its morphosyntactic environment*. In those rare cases where both copies are pronounced, it would sometimes appear that allomorphy which is regularly triggered elsewhere in the language is mysteriously suspended. Note that all of this follows from not unreasonable assumptions about the PF mapping operation.

Now, it has been argued that the syntactic relation between the topic-infinitive and its matrix ‘copy’ is one of movement. That is, the predicate cleft structure is created by moving the matrix VP into the topic position, with subsequent pronunciation of both copies of the VP (Landau 2003). I’ll assume

⁸ Other, later computations presumably decide whether a given copy is pronounced.

this holds for Yiddish predicate clefts, with the added quirk that the matrix VP moves to Spec IP instead of the usual Spec CP⁹. This immediately buys us our desired generalization: when the topic infinitive and clefted V are in the same minimal phase, they are spelled out as containing the same allomorphs of the V, *regardless of the fact that the allomorph found in the infinitive is not the one demanded by that environment*. Moreover, consider what happens when the topic infinitive and the clefted V are not within the same minimal phase. Since the clefted V is not in the Spell-Out domain of the topic infinitive, the inviolable requirement that Spell-Out be a mapping cannot force the infinitive to contain the same V-allomorph as the matrix copy. As a result, the requirements governing the phonological expression of morpho-syntactic feature bundles apply without condition. The topic-infinitive is thus spelled out with the “real”, lexically specified infinitive form of the V.

At this point, however, the careful reader will have noticed a lacuna in this story: why is the topic infinitive of a clefted present tense VP based on the present tense allomorph rather than *vice-versa*? Why do we get “veysn...veyst” rather than “visn...vist”? This is a difficult question, one that must be addressed by any analysis of the pseudo-infinitive¹⁰. A hypothesis I find interesting is that part of the Spell-Out mapping proceeds “bottom-up” (in a sense to be made more precise later). At the C-phase, the morpho-phonological form of the V-head is first decided at I. Once the morphological form of the V is computed at I, later morphological operations within that phase cannot change its form, even if they would otherwise be obligatory.

Except for this stipulation that Spell-Out partly proceeds bottom-up, the analysis that develops from the “allomorph-matching” account appears to be quite attractive. It certainly fares better than an account that would deduce the pseudo-infinitive from some mysterious need to keep copies “phonologically parallel”. I will therefore in the next section articulate this idea more fully and precisely, explicitly adopting the theory and formalism of Distributed Morphology (Halle and Marantz 1993, Embick and Noyer 2001). Of course, the “allomorph-matching” account is a hypothesis independent of this particular formalization, and it will be shown in a later section that the general, “non-implementation specific” allomorph-matching hypothesis that we have so far described can alone receive some interesting cross-linguistic support.

⁹ Be aware, though, that in Cable 2003, I argue *against* such a movement analysis of the Yiddish predicate cleft.

¹⁰ Note that this is also quite a tough question for the “phonological-copying” account.

7. An Implementation in Distributed Morphology

Let us now sharpen our allomorph-matching hypothesis by stating it within a particular formal theory. The theory I will use will be a variant of Distributed Morphology. I assume that the morphology of Yiddish contains the following Vocabulary Insertion Rules ¹¹.

(1) [V] ↔ /ze/ , /veys/ , /gib/ , /zayn/ , /hob/

(2) [- local person, sing] ↔ ∅ / /iz/ _____

(3) [- local person, sing] ↔ /t/

(4) [+local person, + speaker, sing] ↔ ∅

(5) [+ local person, - speaker, sing] ↔ /st/

(6) [+ local person, - speaker, pl] ↔ /t/

(7) [pl] ↔ /ən/

(8) [+ inf] ↔ ∅ / { /zen/ , /zayn/ } _____

(9) [+ inf] ↔ /ən/

(10) [+perf] ↔ /hob/

Rule (1) states that /ze/, /veys/, /gib/ and /zayn/ are all verbal heads. Rules (3) – (7) capture the standard agreement morphology for Yiddish: -∅ in 1st singular, -st in 2nd singular, -t in third singular, -t also in 2nd plural, and -ən in all other plurals¹². Rule (2) is needed to correctly derive the 3rd person singular of /zayn/ as “iz”, and not “izt” (see Sentence (9)). Rules (8) and (9) hypothesize that the only infinitival suffix in Yiddish is the syllabic /ən/. The few instances of apparent monosyllabic infinitival endings are actually cases in which an allomorph of the root combines with a special zero infinitival suffix. Although this is best motivated for the infinitive “zayn”, I’ll assume it to also be the case for

¹¹ By giving only these rules, I am thereby leaving the derivation of the topic participles beyond the present account. However, this system can be trivially augmented to derive the topic participles, and such derivations would not be relevant to our main discussion.

¹² Since I can imagine no featural similarity between 3rd singular and 2nd plural, I assume that these two suffixes are merely homophonous. Of course, the possibility remains that /t/ is the default spell out of “present tense”.

infinitives such as “zen”. Finally, Rule (10) is a makeshift rule stating that the root /hob/ is also a spelling-out of the past auxiliary¹³.

I also assume that Yiddish contains the following Readjustment Rules. These are special morphological rules that are part of a different system from the regular phonological rules of Yiddish¹⁴.

(11) /veys/ → /vis/ / [___ [+inf]]

(12) /gib/ → /geb/ / [___ [+inf]]

(13) /hob/ → /hub/ / [___ [+inf]]

(14) /ze/ → /zen/ / [___ [+inf]]

(15) /zayn/ → /bin/ / [___ [+local person, sing]]

(16) /zayn/ → /iz/ / [___ [-local person, sing]]

Rules (11) – (13) are meant to capture the distribution of the infinitival allomorphs of Vs such as *have*, *give*, and *know*. They state that certain morpho-phonological realizations must be altered to other, special ones, in the environment of infinitival features. Rule (14) is part of our hypothesis that there is no monosyllabic infinitival suffix in Yiddish. Rather, /zen/ is a single allomorph of the root /ze/, triggered by adjacency to an infinitival feature. Rules (15) and (16) derive the suppletive paradigm of “zayn”, illustrated by the sentences in (9).

In addition to these rules, we stipulate that (i) within a single Spell-Out domain, all copies of the same head must receive the same morpho-phonological realization, and (ii) the PF operation “Linearize”, which consists of Vocabulary Insertion and Readjustment Rules, proceeds bottom-up.

Let me now specify what is meant by “bottom-up”. Within a particular phase, the operation Linearize looks first at the elements contained within the lowest functional projection of the clause. At the C-phase, for example, Linearize applies first to the left edge of vP. Moreover, within that functional projection, Linearize applies first to the lowest projection of the functional head and then works its way up. So, at the vP-phase, Linearize first applies to the vP projection containing the head v and its complement, and then applies to the vP projections containing the Specs and Adjuncts of v. Furthermore, once Linearize has

¹³ Note that since Yiddish also has a “be/have” distinction in its auxiliary system, this rule is insufficient as stated. However, this rule is quite peripheral to our analysis.

¹⁴ As stated before, I assume the rule transforming /hob/ to /hot/ is a phonological rule and *not* a readjustment rule. That this rule *is* a phonological rule rather than a readjustment rule is argued by the fact that second person plural of “hubn” is also “hot” (Davis and Prince 1986). I conclude that a phonological rule transforming all instances of /hob/ to /hot/ is more plausible than a Readjustment Rule treating [3rd sing] and [2nd pl] as a natural class for the spelling out of a “ho” allomorph” of “hob”.

finished computing over a particular projection of a functional head, the morphological realizations mapped to the heads in that projection are *determined* and cannot be replaced by any later morphological operations. In this way, one might think of each XP (X, a functional head) as constituting a “sub-phase” within a particular phase. Once Linearize has moved to nodes above a particular XP, nothing within that XP can change its morphological realization. No further “realizational rules” can apply to the elements of the XP. Put plainly, the lowest position a head occupies within the phase is the *only* position where allomorphy can be triggered. To provide some architectural backbone to this stipulation, we might imagine that as soon as Linearize finishes computing over a particular projection, the output morpho-phonological assignments are “shipped off” to later systems of morphology and phonology.

This *determination* of the constituents within XP, however, only holds until the next phase begins. Given that phases are “informationally encapsulated” from one another, the morpho-phonological realization of a copy of X within one phase has no effect on its morpho-phonological realization at a later phase¹⁵.

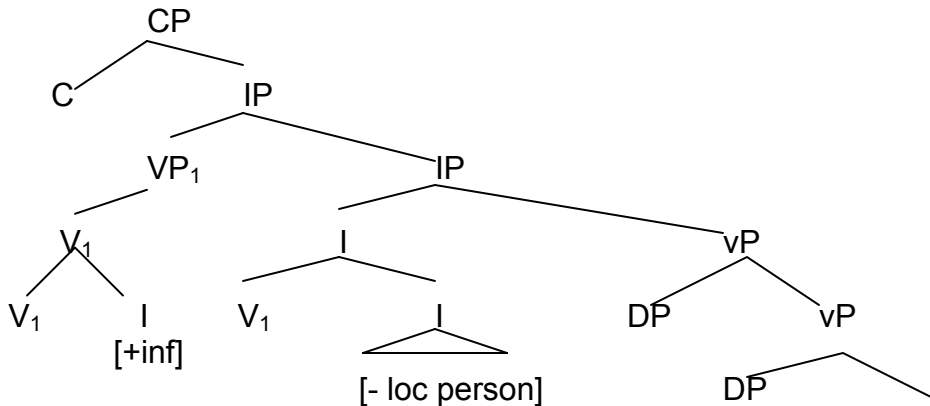
This hypothesis strongly constraints the form Readjustment Rules can take. A Readjustment Rule applying to the “realization” of a node X can only be triggered by material found within the lowest functional projection dominating X. For example, if a language has v-to-I movement, a V root may be subject to allomorphy triggered by Tense and Agreement features, but there could be no allomorphic sensitivity to any features contained purely within, say, DP argument clitics (which we might assume are not adjoined to I). Although *this* at least seems correct, I don’t know whether there aren’t other cases of allomorphy that violate or motivate the locality requirements made by this “bottom-up” hypothesis. Certainly the requirement that allomorphy can only be triggered at the *lowest* position within the phase occupied by the head might seem suspiciously stringent. Are there not functional heads interposed between v and I?

This locality requirement clearly does not hold of such morphological operations as “morphological merger”, “fission”, etc. Note, however, that these are all operations not assumed to be part of Linearize. That is, these operations manipulate the locations of feature bundles or phonological strings, but have no effect on *how* particular heads are mapped to phonological values. Since it is only rules of this sort which are subject to the strict locality condition just mentioned, we don’t expect those operations to be as limited.

Let us now see how these assumptions, added with the rules in (1) – (16), derive the appearance of the “pseudo-infinitive” in the sentence “Veysn veyst er es.”

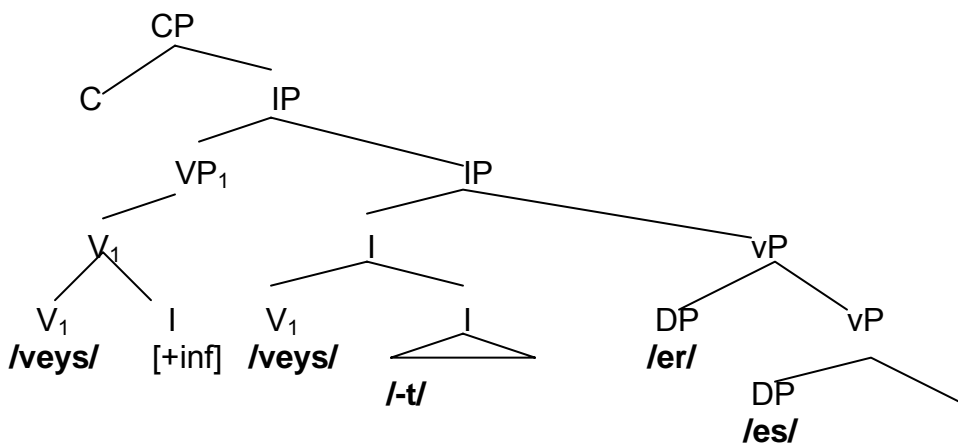
¹⁵ This is modulo whatever principles require copies of a particular head to contain the same ‘lexical information’. Note, however, that this requirement might be due to interpretational principles, and so not the result of any kind of syntactic constraint.

(I) At the C phase, the relevant structure sent to Spell-Out is the following ¹⁶:



This structure consists of everything located above the little-v head in this sentence.

(II) Our Linearize operation begins with the lowest functional projection in the phase, the vP. It starts with the lowest vP, first assigning the realization “es” to the lowest scrambled DP. It then moves up the higher vP, assigning the realization “er” to the higher scrambled DP. Once the vP projections have all received morpho-phonological realizations, Linearize moves to the IP projections. We again start with the lowest one. This projection contains the lower copy of V₁. By Rule (1), we can fill this node with the root “veys”. Rule (3) demands that we fill I with the morpheme “t”. Linearize is now done with this IP, and as a result the morphological form of V₁ is *determined* to be /veys/. The resulting tree can be drawn as follows .



(III) With that IP finished, we move up to the next one higher. This IP contains the higher, topic-infinitive copy of V₁. Now, we already at the lower IP projection

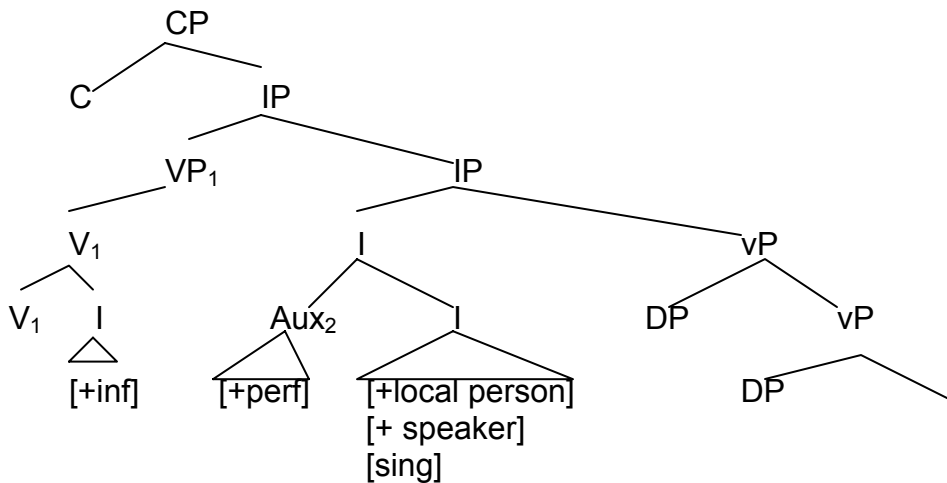
¹⁶ I assume that the infinitival morphology added to the V within the topic Spec IP is added by some prior morphological operation that “prevents” the existence of a V without any tense/agreement suffix (see Davis and Prince 1986).

determined that the morphological form of V_1 is /veys/. Thus, Linearize cannot do anything to V_1 : its morpho-phonological content was determined and set aside as soon as we moved out of the lower IP. Note that we cannot even apply the adjustment rule in (11), even though its condition is satisfied here. Applying this readjustment rule would amount to changing the morphological realization of V_1 , which we have stipulated to be impossible at this stage of the derivation. Nevertheless, Rule (9) demands that we spell out the I sister to V_1 here as /ən/.

(IV) Once we have passed through the final (trivial) CP layer, the output Linearize gives to us is /veys+/ən+/veys+/t+/er+/es/. Combined with the mapping done on the earlier phase, and our algorithm for determining copy-pronunciation, we get as the PF for this sentence “Veysn veyst er es”.

Let us now show how this system derives the disappearance of the pseudo-infinitive when the clefted VP is infinitive or past. That is, let us show how we derive “Visn hob ikh es gevust”.

(I) At the C phase, the relevant structure sent to Spell-Out is the following :



This structure consists of everything located above the little-v head in this sentence.

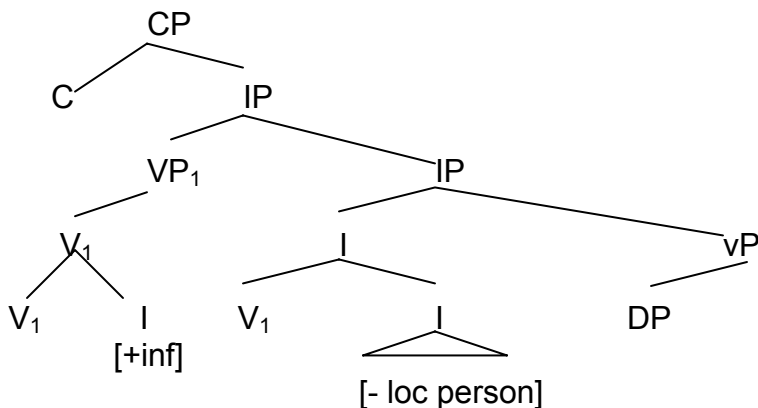
(II) Our bottom-up Linearize operation begins with the lowest vP projection, assigning the DP there the realization “es”. It then moves up to the higher vP projection, assigning the DP there the realization “ikh”. The vP’s completed, Linearize moves up to the lowest IP projection. Here, there are two nodes requiring morphological realizations: Aux and I. Rule (10) requires that the Aux head be realized as “hob”, while Rule (4) demands that I have a zero pronunciation.

(III) Now things become interesting. Linearize moves up to the next highest IP projection. Within this projection, we find the topic-infinitive containing the copy of V_1 . This time, however, this is the first instance of V_1 we have encountered (on this phase). Thus, its morpho-phonological content has not yet been determined, and so the mapping procedure can freely assign it the morphological realization /veys/. Moreover, since the application of Rule (11) here is not prevented, it must apply. It therefore alters the /veys/ in V_1 to /vis/. Finally, Rule (9) demands that we spell out the I here as /ən/.

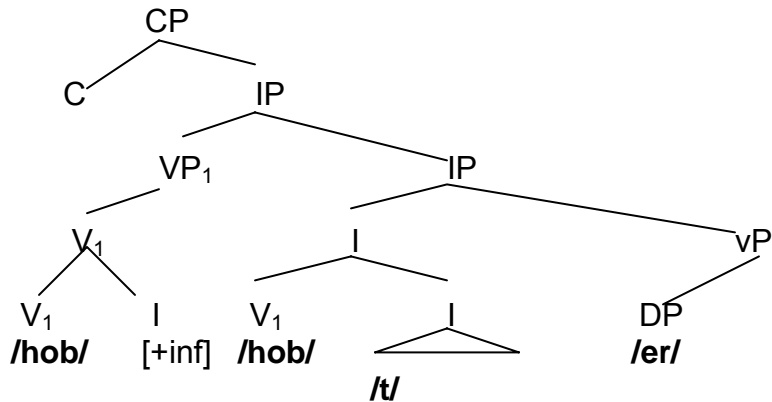
(IV) The resulting output is /vis/+/ən/+/hob/+/∅/+/ikh/+/es/. Combined with the mapping done on the earlier phase, and our algorithm for determining copy-pronunciation, we get as the PF for this sentence “Visn hob ikh es gevust”. A similar proof derives “Visn vil ikh es visn.”

Finally, let us see how this system derives the sentence “Hobn hot er a bukh”.

(I) At the C phase, the relevant structure sent to Spell-Out is the following. See Deising 1997 for arguments that “a bukh” here stays within the lexical VP.



(II) Linearize begins at vP, but then quickly moves on to the lowest IP projection. Here, V_1 is chosen to be /hob/. Rule (3) requires I to be spelt out as /t/. The structure we obtain is the following.



(III) With that IP finished, we move up to the next one. Here, for familiar reasons, the form of V₁ cannot be altered. Thus, the adjustment rule in (13) cannot apply. However, Rule (9) can and does apply.

(IV) Our initial output for this phase is /hob+/əɪn+/hob+/t+/er/. This representation, however, undergoes further, phonological processing. In particular, the phonological rule which converts “hobt” to “hot” is triggered here. Since this /b/ is elision is a phonological rule – and not a “realizational rule” part of our Linearize operation – it applies within an entirely separate stage of the derivation, and thus there is no problem with it altering the lower copy of V₁ but not the higher. In fact, it presumably operates on a purely phonological representation, devoid of any information that the two “hob”s are syntactic copies of one another.

(V) After joining the resulting structure up with what has been done at earlier phases, we get as the PF for this sentence “Hobn hot er a bukh”.

The reader is encouraged to check that all our grammatical example sentences can receive derivations analogous to one of the three we have just given, and that none of the ungrammatical example sentences can be derived. Therefore, let us now turn to some cross-linguistic evidence supporting the more general allomorph-matching analysis.

8. Evidence from Brazilian Portuguese

A challenge any analysis of the Yiddish pseudo-infinitive must face is that this phenomenon appears to be peculiar to just the Yiddish predicate cleft. Other languages, such as Brazilian Portuguese and Hebrew, have predicate clefts quite similar to the one found in Yiddish. Nevertheless, in these languages, the topic-infinitive is always simply the normal, infinitival form of the clefted V seen elsewhere in the language.

Brazilian Portuguese illustrates this problem nicely. The predicate cleft of Brazilian Portuguese bears a shocking similarity to that found in Yiddish (c.f. Bastos 2002, Cable 2003). In both languages, the predicate cleft is primarily a “topicalizing construction”, the topic constituent typically denoting “discourse-given” information. For many speakers of both languages, the predicate cleft is used mainly to a kind of sarcastic purpose; “to-read I read a book” typically means something like “if you call that reading, sure, I read a book”. In both languages, the topic constituent bears either infinitival or participial morphology. In both languages, the relation between the topic constituent and the clefted constituent must satisfy subjacency, suggesting a movement relation (Davis and Prince 1986, Hoge 1998). In both languages, “genus-species” predicate clefts are possible (Cable 2003). Finally, in both languages there is good evidence for v-to-I movement.

Despite these similarities, the topic infinitive in a Brazilian predicate cleft is always a normal, lexically-stored infinitive. For example, the infinitive of the verb meaning *say* is “dizer”, while its present tense allomorph is “dig-“. Nevertheless, (21a) is acceptable while (21b) and (21c) are strongly rejected.

(21a) Dizer digo que eu leio romances.
 to-say I-say that I read novels
As for saying, I say that I read novels.

(21b) * Diger digo que eu leio romances.

(21c) * Dizer dizo que eu leio romances.

The same is true of the roots for *lose* and *be*.

(22a) Perder perço.
 to-lose I-lose
As for losing, I lose.

(22b) * Perçer perço.

(22c) * Perder perdo.

(23a) Ser John e intelligent...
 to-be John is intelligent
As for being, John is intelligent (though as for acting, he doesn't act intelligent).

(23b) * Er John e intelligent.

(23c) * Ser john se intelligent.

Given the strong structural similarities between the Yiddish and the Brazilian predicate clefts, how could one explain the lack of pseudo-infinitives in Brazilian Portuguese? Is the pseudo-infinitive simply a strange quirk of Yiddish,

independent from the syntax of its predicate cleft? If so, why are intuitions about those structures so robust across so many dialects?

Interestingly, our allomorph-matching hypothesis can provide an answer. Recall that this account localizes the pseudo-infinitive to structures in which the topic infinitive and the clefted constituent are spelled-out within the same minimal phase. Thus, the appearance of pseudo-infinitives in Yiddish is directly dependant upon its having the special property that Spec-IP is its topic position. The allomorph-matching hypothesis therefore predicts that pseudo-infinitives will not occur in any languages that are not V2 within their IP. There is, of course, nothing to suggest that Brazilian Portuguese also has this typologically rare structure. In Brazilian Portuguese, then, the position of the topic infinitive is Spec-CP, the standard position for topics. Spec-CP is, however, *not* a position spelled-out within the same phase as I. The left periphery of the CP is standardly assumed to be spelled-out within the phase just *after* the C-phase. Thus, because the topic-infinitive and the matrix V are *never* spelled-out within the same minimal phase in Brazilian Portuguese, our allomorph-matching hypothesis correctly predicts that Brazilian Portuguese should not have pseudo-infinitives in any of its predicate clefts.

I take the absence of pseudo-infinitives in Brazilian Portuguese to provide strong support for any analysis that localizes the pseudo-infinitive to structures in which the topic-infinitive and the matrix V are within the same minimal phase. Such an analysis, of which our allomorph-matching account is one example, predicts not only the absence of the pseudo-infinitive in Yiddish sentences where the clefted VP is a participle or infinitive, but also its absence in the predicate clefts of languages lacking a V2 IP, despite whatever other syntactic properties they might share with Yiddish.

9. Conclusion

We have seen how the peculiar properties of the Yiddish pseudo-infinitive can be deduced from the hypothesis that the morpho-phonological form of a head can violate the otherwise inviolable morphological rules of a language in order to preserve the well-definedness of the PF mapping. Furthermore, we have seen that the conditions under which pseudo-infinitives appear make some sense within a theory that assumes phases.

It goes without saying that the theory of phases receives indirect support from the success of this analysis. The following, however, does not go without saying. The restriction of pseudo-infinitives to structures in which the matrix V has moved to I strongly suggests that the structure between CP and vP stands as a domain for the determination of morphological realization. The *only* theory to single out that structure in this way is the theory of phases. Thus, until there

arrive other theories of the syntax-phonology interface that distinguish this structural domain in a similar way, the theory of phases is *essential* for understanding the morphological irregularities of Yiddish.

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