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Remarks on heritage language grammars and their implications for linguistic theory

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1 Introduction

In their paper, 'Heritage Languages and Their Speakers: Opportunities and Challenges for Linguistics,' Elabbas Benmamoun, Silvina Montrul, and Maria Polinsky (to be referred to in this commentary as BMP, henceforward) provide an excellent overview of recent work on the linguistic systems of heritage speakers and some of the implications that the study of such systems may have for linguistic theory. As BMP illustrate with a variety of examples, the study of heritage language grammars promises to deepen and contribute to our understanding of the nature of linguistic knowledge in general, and the way such knowledge is represented in the mind, hence its close ties to the primary goals of linguistic theory.

In this commentary, I provide some general comments on the paper and raise some questions, not only for the authors, but for scholars interested in the study of heritage language speakers' linguistic competence in general. The commentary is divided into four sections. In Section 2, I comment on some of the 'definitional' issues raised by BMP regarding the nature and the diagnostics of what qualifies as a heritage language system. In Section 3, I offer some comments on the empirical data discussed by the authors in relation to the status of tense, case, and agreement in heritage language grammars. In Section 4, I comment on the examples from heritage Arabic cited by BMP, and bring to light some data that should be of relevance to the authors' discussion of such structures and how to account for their occurrence in heritage Arabic. Section 5 concludes the commentary with some final remarks.

2 Attrition versus incomplete acquisition of heritage language grammars

BMP spend Section 3 of their paper discussing how to identify who can be described as a heritage language speaker and how to rate such speakers on the scale of linguistic proficiency in the heritage language. My main understanding from the discussion is that a heritage speaker has learned their heritage language in their early years of childhood, either before or side by side with the dominant language of the speech community.[1] In later years, however, such heritage language speakers are described as having undergone linguistic 'attrition' of the heritage language system or as showing 'incomplete acquisition' of that system. In this section, I would like to argue for the importance of distinguishing between two sub-populations of heritage language speakers that BMP discuss: those that are characterized as having undergone 'linguistic attrition' and those that have been characterized as having 'incomplete acquisition' of the target heritage language.

The two terms 'attrition' and 'incomplete acquisition' are used by BMP in their discussion of heritage languages, but they do not refer to the same thing, hence their implications for linguistic theory are different. The way I understand it is that 'attrition' refers to a process affecting a linguistic system that has already become stable after full acquisition, but due to external factors (e.g., the dominant use of a majority language) has become destabilized in both areas of linguistic knowledge and language use. Attrition thus implies that full acquisition of linguistic aspects has already taken place. By contrast, the term 'incomplete acquisition' suggests that the leaner has never really fully acquired particular grammatical aspects, hence his/her command of the relevant language form is 'incomplete.' These strike me as two different groups of heritage speakers, and they raise different questions pertaining to linguistic knowledge.

In particular, the 'attrited knowledge' group tells us what happens to a 'stable' linguistic system when it is under-used, leading to effects on speakers' linguistic performance and perhaps their knowledge base as well. The 'incomplete acquisition' group, by contrast, tells us how a linguistic system fails to become fully acquired due to several factors affecting language acquisition, including lack of enough exposure to the relevant linguistic input required for the

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1 BMP state that the order of acquisition matters, with the heritage language having to be learned *first* for the learner to qualify as a heritage language speaker. It is not clear, however, how this requirement is compatible with the assumption made throughout that a heritage language can be learned *simultaneously* with the dominant language.

internalization of a particular linguistic form. These are two different aspects for the study of linguistic knowledge and how it arises in the mind of the speaker, and they should be distinguished when investigating the linguistic systems of heritage language speakers.[2] For example, when heritage Russian speakers have trouble with the Russian case system, is that because they have failed to learn the system due to insufficient input or any one of the other factors that BMP discuss in Section 5, or is it because they have learned the case system but due to one or more of these factors ended up 'losing' that knowledge (or at least an important part of it)? Failure of linguistic attainment of a particular grammatical property P should be distinguished from failure of linguistic maintenance of P. As far as I can see, while these are related phenomena, they should be dealt with separately. One group poses questions primarily pertaining to language acquisition and linguistic competence (and is, therefore, directly connected to research on L1 acquisition and bilingualism); the other raises questions primarily tied to language usage and maintenance (and is more akin to studies on L2 acquisition). For research on heritage language grammars to have clear implications for linguistic theory and language acquisition, a clear separation between the two groups in heritage language studies is needed.[3]

3 Tense, case, and agreement in heritage language systems

In this section, I would like to comment on some of the facts reported by BMP on the morphosyntactic properties characterizing heritage language systems. In particular, BMP point out that while tense remains a robust feature in the language of heritage speakers, case and agreement typically remain problematic for them. There are two issues I would like to address here: the status of tense, and the relation (or lack thereof) between case and agreement.

BMP report that tense features are typically the least vulnerable in heritage grammars. They hypothesize that "tense is critical to sentential syntax because it licenses the subject through its Case and EPP properties; it is selected by a

2 BMP's footnote 14 addresses the potential terminological confusion over the use of the term 'incomplete acquisition,' but it does not address the concern I am raising here.

3 Because that distinction is not always made clear in the specific studies reported in BMP's paper, I will use 'incomplete acquisition/attrition' when referencing results of these studies in the discussion below.

complementizer, and it usually interacts with the verb and the complementizer." But case can also be critical to sentential syntax because it provides a morphological reflex for the grammatical functions of the DPs in the sentence, hence the frequently observed freedom of word order in case-rich languages. I would like to propose instead that the facts about tense features being least affected by incomplete acquisition/attrition as compared to agreement features should follow if T is treated as a substantive, rather than a functional, category, along the lines suggested in Chomsky (2001, 2004, 2008), where the C-T relation mirrors the *v*-V relation. One could claim then that substantive categories are less susceptible to incomplete acquisition/attrition than functional categories. This seems to be in line with what BMP report in general. It is also reminiscent of parallel cases where content morphemes and function morphemes are affected differently in aphasic patients or in speakers with so-called specific language impairments. The functional component of the grammar seems to be the one most affected when a linguistic system is placed under unusual circumstances, whether these are as dramatic as a trauma or as simple as being displaced to a community where a more dominant language is spoken. Under the assumption that functional domains are typically the ones most vulnerable, we should then expect heritage language speakers to also have trouble with the CP-layer, whether construed as a unified domain or as a finer-articulated domain à la Rizzi (1997), and therefore face challenges with regard to displacement/dislocation phenomena at the left-periphery, particularly given that such structures tend to be more marked and are typically used to induce certain information-structure or discourse effects. While not discussed in detail, BMP point out to struggles by heritage language speakers regarding operations at the left-periphery.

Now, consider case and agreement. The facts related to incomplete acquisition/attrition of case and agreement in heritage languages may bear on the issue of how such morphosyntactic features are licensed in the grammar. In the generative tradition, particularly within minimalism, case and agreement are typically assumed to be licensed hand in hand (e.g., within an Agr projection in early minimalism, or as a reflex of phi-feature licensing in later minimalist analyses). If this is the case, then we would expect heritage speakers to exhibit nondifferential linguistic behavior when it comes to these two particular morphosyntactic features. While BMP report that such speakers indeed have trouble with case and agreement, they also point out that in general there is an asymmetry between nominal and verbal morphology, with the latter being less vulnerable than the former. For example, verbal agreement errors occur at a lesser percentage than case marking errors, the latter typically involving omission of case. BMP speculate that the connection between case and agreement in the grammar can be 'severed,' thereby leading to the observed asymmetry. This, however, would

entail that heritage speakers, for some reason, become selective with regard to the types of formal features their grammars license. It is not clear, though, why the opposite would not take place: A heritage grammar system with more or less robust case-marking, but 'attrited' verbal agreement. An alternative to explain this asymmetry, cited by BMP, is to assume a radical distinction between case and agreement with regard to the level (or component) where each is licensed. Under this alternative, case would be assigned in the post-syntactic component, while agreement reflects syntactic structure and is assigned in the mapping between syntax and phonology/morphology. This would account for the asymmetry between case and agreement under the assumption that the mapping between syntactic structure and agreement does not pose a challenge to the heritage speaker, whereas the mere marking of case in the post-syntactic component is challenging. Such an explanation, however, seems incompatible with the Interface Hypothesis, adopted by BMP later in their paper (see also the discussion of Arabic data below), which claims that heritage learners "have a reduced capacity to perform post-syntactic operations that require mapping the output of one component onto another" (e.g., between syntax and morphology). If this hypothesis were indeed at work in heritage grammar, then we would actually predict that spell-out of verbal agreement should pose more problems to a heritage speaker than spell-out of case morphology, since only the former requires mapping between two components.

One possibility is to assume, following Chomsky (2001, 2004) that case is a reflex of phi-agreement rather than a separate syntactic feature by itself. Under this assumption, phi-agreement is the primary syntactic dependency holding between a head and a DP, whereas structural case is a mere side effect of that dependency. One could then argue that heritage language speakers are able to establish phi-agreement relations, but may tend to ignore the spell-out of their case side effects, therefore leaving DPs 'unmarked,' which results in the asymmetry between agreement and case observed in the grammars of such speakers. The subsidiary status of case versus the primary status of agreement under this approach may thus provide us with a possible explanation for the case-agreement contrast discussed by BMP.

4 The interface hypothesis: Comments on heritage Arabic

In this section, I would like to discuss the facts from heritage Arabic reported by BMP regarding construct state constructions and closest conjunct agreement.

As BMP clearly point out, the first noun of a construct state (CS) in Arabic will always appear without the definite article, even though the whole CS itself is definite (cf. the examples in (27) in BMP's paper). BMP adopt the view that since CSs behave as single prosodic units, definiteness is marked only once within that unit. BMP report that heritage speakers of Arabic seem to show incomplete acquisition/attrition when it comes to this (in)definiteness rule, producing cases where the first noun of a CS is incorrectly definite (cf. BMP's examples (28–29)). The authors then conclude that heritage Arabic speakers may simply lack the knowledge pertaining to CS structures being single prosodic units, hence their failure to fully acquire (or to maintain) that piece of linguistic knowledge is due to a failure in the mapping between the syntax and the phonology/morphology interface, an instance where effects of the Interface Hypothesis are claimed to be at work.

I have two comments on BMP's discussion of the CS, however. The first has to do with the status of example (28), which is reported from a Palestinian Arabic heritage speaker. In Egyptian Arabic (EA, henceforward), and I suspect in Palestinian Arabic as well, such examples are indeed acceptable. Two comparable examples from EA are given in (1) below.

(1) a. ʔil-xaatim ʔil-dahab
the-ring the-gold
'the gold ring'
b. ʔil-beit ʔil-xašab
the-house the-wood
'the wooden house'

The generalization seems to be that when the relationship between the two nouns is a 'made-of' type of relation, i.e., when the second noun indicates the material of which the referent of the first noun is made, both nouns are marked as definite. The grammaticality of such examples suggests they are not really CS structures. Rather, they may be a special case of modification or compounding in which the second noun functions adjectivally. (Notice that no alternative adjectival form of such 'material' nouns is available in this dialect, which may be the reason why this particular construction developed in the language.) One clear piece of evidence that such cases are not CS is the fact that intervening lexical material, e.g., an adjective, can occur between the two nouns, as in the examples in (2), which clearly shows that they do not represent a single prosodic unit.

(2) a. ʔil-xaatim ʔil-gidiid ʔil-dahab
the-ring the-new the-gold
'the new gold ring'

b. ʔil-beit ʔil-kibiir ʔil-xašab
the-house the-big the-wood
'the big wooden house'

Whatever the correct analysis of such structures turns out to be, the example cited in (28) of BMP's paper does not in itself show incomplete acquisition or language attrition of CS by heritage Arabic speakers, since it does indeed occur in baseline Arabic, at least in EA. That said, BMP's point that heritage Arabic speakers have trouble with the CS (in)definiteness rule is still fully served by the example in (29) from a heritage speaker of EA, since that example does indeed violate CS rules. In the next paragraphs, I offer some comments on why such ill-formed CS examples may occur in heritage Arabic.

As noted earlier, BMP propose that the reason for the occurrence of deviant CS in heritage Arabic has to do with the syntax-morphology/phonology interface: Heritage speakers do not seem to know that CS structures are single prosodic units; hence they mark both elements in a CS as definite, contrary to the rules in the baseline. I would like to offer another explanation. Most of modern Arabic dialects, unlike Classical Arabic, have developed a *free state* (FS) possessive construction (also often called the analytic or periphrastic possessive), in addition to retaining the CS construction. In EA, FS possessives are headed by the morpheme *bitaaʕ*, in Tunisian Arabic by *mtaaʕ*, in Moroccan Arabic by *dyal*, in Levantine Arabic by *tabaʕ*, in Iraqi Arabic by *maal*, and in several Arabic dialects of the Arabian Peninsula by *ħagg* (see Versteegh 1997, Brustad 2000, Holes 2004, among several others). In such dialects, the CS seems to be primarily used in inalienable possession contexts, with the FS possessive used everywhere else and at a much higher frequency. What is relevant to the discussion here is that FS possessives are not subject to the (in)definiteness constraint; rather, the first noun of a definite FS possessive is always definite. Consider the example in (3) from EA (where POSS = possessive marker).

(3) ʔil-kitaab bitaaʕ Aħmad
the-book POSS Ahmad
'Ahmad's book'

Given the robustness and frequency of FS possessives in the input that a heritage speaker gets exposed to, it is not unreasonable to assume that examples such as (29) in BMP's paper may indeed by the result of overgeneralization from FS possessives to all possessives in the language. This would be evidence showing that overgeneralization of the type we see in L1 acquisition as well as lack of enough exposure to the CS in the input may be the reason for this case of incomplete acquisition/attrition of the CS. Unlike a normal monolingual child, the heritage

learner does not receive the sufficient linguistic input needed to allow him or her to backtrack from the overgeneralized form to the baseline one, leading to inconsistent marking of (in)definiteness in their speech. If this is correct, then the main factor at work here does not necessarily have to do with heritage speakers' inability to conduct operations at the syntax-phonology/morphology interface; rather, it has to do with general patterns of acquisition under conditions of reduced exposure to CS input coupled with robust exposure to FS structures where the (in)definiteness rule does not apply. While this remains a speculation, it is a plausible one, and it would be interesting to see if experimental or other types of evidence can be shown to directly bear on these two competing explanations for why some heritage Arabic speakers have trouble with the (in)definiteness rule in CS constructions.

Finally, I would like to comment on the examples in (30–32) in BMP's paper, which illustrate the phenomenon of closest conjunct agreement (CCA) in EA. As BMP point out, CCA occurs only in VS orders in Arabic dialects, hence the presence of CCA in SV orders such as (30) is treated by BMP as a case of incomplete acquisition/attrition in heritage Arabic grammar. There is one intervening factor that one should bear in mind when interpreting these data, however: The given examples represent cases of agreement with a participle, not with a verb. The term glossed as *naayem* in BMP's example (30) is the active participle from the verb *naam* (= 'slept'), and is used in this sentence as an adjectival predicate in a copular structure. The best way to gloss *naayem* in English is probably as the participial form 'sleeping.' Note that Arabic participles show agreement only in number and gender, but not in person. Remember also that copular structures in present tense contexts in Arabic dialects do not require an overt copula, which is the case in BMP's example (30). While (30) is ungrammatical in EA, it may not quite tell us that heritage Arabic speakers have CCA in SV orders, since this can be a case of 'concord' internal to the syntactic category containing both the conjoined subject and participial predicate (probably a Small Clause or a Predicate Phrase; see Benmamoun 2000 for a discussion of copular structures in Arabic). The most relevant examples to test the presence (or lack thereof) of CCA in SV orders in heritage Arabic would be those where the participle in (30) is replaced by a perfective verb inflected for CCA, as in (4a) below, as opposed to full agreement in (4b) and CCA in the VS order in (4c).

(4) a. *ʔil-walad wi-l-kalb naam ʕalaa ʔil-siriir
the-boy and-the-dog slept.3SGM on the-bed
b. ʔil-walad wi-l-kalb naam-uu ʕalaa ʔil-siriir
the-boy and-the-dog slept.3PL on the-bed
'The boy and the dog slept on the bed.'

c. naam ʔil-walad wi-l-kalb ʕalaa ʔil-siriir
slept.3SGM the-boy and-the-dog on the-bed
'The boy and the dog slept on the bed.'

If it turns out that heritage speakers of EA (or any other Arabic variety for that matter) do indeed produce (or judge as grammatical) cases of CCA with inflected verbs in the SV order, and not just with participles, then BMP's account holds. If heritage speakers do not produce or accept such forms, then the occurrence of CCA in examples such as (30) remains interesting, but an alternative explanation for the asymmetrical behavior between verbs and participles when it comes to CCA is needed. One possibility alluded to earlier to account for this asymmetry is to assume that the kind of agreement relation holding with verbs is indeed different from the one holding with participles, the latter belonging to the type of 'concord' phenomena that we see with adjectives, which typically take place within a local configuration, particularly given the property-denoting nature of such participles in the examples given by BMP in their paper.

5 Final remarks

BMP's paper on the nature and characteristics of heritage language grammars as well as their implications for linguistics makes a strong argument for the relevance and importance of the investigation of such systems by linguists, while bringing together notions and methodologies from linguistic theory, first and second language acquisition, and experimental linguistics. In their conclusions, BMP compare the significance of the study of heritage languages to the development of linguists' interest in the study of creole systems a few decades ago. The study of creoles has shown us how linguistic knowledge emerges in the absence of structured linguistic input; the study of heritage languages promises to show us how the acquisition of linguistic knowledge can be rendered incomplete or undergo attrition due to reduction in the heritage language input a speaker is exposed to, and/or pressure to learn and use a dominant language in that speaker's speech community. By investigating linguistic aspects that fail to be fully acquired by heritage language speakers or that get lost later in adulthood, we are likely to gain further insights into fundamental questions of linguistic inquiry pertaining to the nature of language, its origin, and its use.

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