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Children always go beyond the input: The Maximise Minimal Means perspective

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1 Introduction

Courname’s “A developmental view on incrementation in language change” outlines a model of child-driven variation and change, which highlights the significance of an overgeneralisation and retraction pattern observed in child language acquisition. The purpose of this commentary is to endorse this proposal as a sizeable step in the direction of facilitating more concrete understanding of the intuition that children can, in a relevant sense, be drivers of linguistic change. Specifically, my objective is to demonstrate the striking way in which Courname’s proposal converges with an independently proposed model which originated as an attempt to understand crosslinguistic variation in a way that explicitly draws on all of Chomsky’s Three Factors: universal grammar (UG), the input, and relevant aspects of domain-general cognition (Chomsky 2005). This is Biberauer’s so-called *Maximise Minimal Means* (MMM) model (Biberauer 2011 *et seq.*; see Biberauer 2017a, Biberauer in press). The commentary is structured as follows: Section 2 introduces the MMM model, Section 3 considers how it incorporates overgeneralisation and retraction to account for patterns of acquisition, variation, and change, and Section 4 concludes.

2 Maximise Minimal Means (MMM): Introducing the model

That “child learning is always about extending beyond finite input” (p. 128) is an uncontroversial fact; *how* children achieve this extension, and whether their extensions may include innovations that survive in their and others’ adult grammars is a matter of much debate, however. In the classic principles and

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parameters era of the 1980s, the standard generative line on the *how*-question was to point to UG as the source of grammatical knowledge that could not have come from the input. As many have since observed, appeals to the rich UG assumed during this era were, however, undermined, on the one hand, by the lack of a *theory* of what the contents of UG – e.g. an innately specified parameter – could and could not look like (see i.a. Gianollo et al. 2008), and, on the other, by the absence of a learning theory, modelling how the acquirer might link the rich contents of UG to the input with which they are confronted (see i.a. Pinker 1984 on the so-called *Linking Problem*, which Dresher 1999 designates the *Epistemological Problem*). Minimalist thinking sets up the possibility of a very different take on how acquirers might go beyond the input: here, the working hypothesis is that UG will not make very specific (parametric) contributions of the kind previously assumed, but that, instead, so-called *Third Factors* or general cognitive mechanisms, including general learning biases, will play a key role in steering acquisition and shaping adult grammars.

The MMM model specifically highlights the acquisition- and grammar-shaping significance of a bias to maximally utilise minimal resources that is also evident in domains beyond syntax and language structure more generally. Consider, for example, the growing empirical support for the reality of *good enough* parsing, in term of which humans preferentially operate with a shallow parse until it becomes clear that deeper parsing is required (Ferreira and Patson 2007); or the evidence indicating the use of fast and frugal heuristics in decision-making, i.e. Kahnemann's (2001) *fast thinking* (see Gigerenzer and Todd 2000 for the seminal fast and frugal heuristics paper); or the fact that the majority of characters in writing systems are made of three strokes or less (Dehaene 2007), with cardinal orientations (horizontal and vertical) being vastly over-represented in the world's languages, compared to oblique ones, as one might expect, given humans' superior ability to compute the former (orientational anisotropy; Morin 2018).

Insofar as it relates to language and language acquisition, the proposal is that MMM will regulate the acquirer's postulation of computationally active features, both morphosyntactic and phonological.¹ More specifically, MMM is assumed to have the following linguistic reflexes:

- (1) **Feature Economy (FE):** Postulate as few features as possible to account for the input, or, more accurately, *intake* (see below; generalised from Roberts and Roussou, 2003).

¹ In keeping with mainstream minimalism and the long-standing generative phonology tradition, the MMM model takes as its point of departure the idea that formal variation should be modelled on the basis of features.

- (2) **Input Generalisation (IG):** Maximise already postulated features in accounting for the input/intake (generalised from Roberts 2007).

In MMM terms, then, the acquirer is assumed to be both conservative and liberal, *pace* much generatively oriented discussion which focuses exclusively on the conservative acquirer. In particular, the assumption is that the process of acquisition essentially centres on identifying the morphosyntactic and phonological features that respectively structure the corresponding systems, i.e. the features that are *contrastive* in the sense of Jakobson (1949), facilitating a formal characterisation of the relevant categories and their systematic interaction. Acquirers, then, are assumed to be conservative in respect of their postulation of (new) features, only postulating a feature where there is evidence for the contrastive status of the relevant feature, and only postulating a *new* feature where, additionally, there is no already acquired feature that can be “recycled” to capture the relevant contrast. This is the essence of FE in (1). The keenness to extend the use of already acquired features to new domains, in turn, reflects a respect in which acquirers are liberal: once they have formal knowledge, they are eager to harness it wherever possible to make sense of other systematicities in the input. This is the essence of IG in (2).

Importantly, both FE and IG are defeasible by the input: as the acquirer’s ultimate objective is to capture all the grammatical systematicities in the input, an unduly general grammar will be refined by the (successive) introduction of one or more further features until the domains over which grammatical regularities hold are appropriately characterised. Formulated in Cournane’s terms, the interaction of FE and IG therefore produces successive rounds of overgeneralisation and retraction until the acquirer’s system reflects the systematicities in the input. In other words, from an MMM perspective, (L1) acquisition just *is* a process of overgeneralisation and retraction. To the extent that the grounds for retraction are compromised, then, the MMM model would also lead us to expect change to be able to have its roots in child-driven, grammatically based overgeneralisation, as Cournane proposes. We consider this question in more detail in Section 3; before this discussion can be initiated, however, a little more must be said about the assumptions surrounding the role of Factors 1 and 2 in the MMM model.

As noted at the outset, the MMM model was conceived as a minimalist model which explicitly seeks to understand language variation – and thus also the acquisition process that gave rise to that variation – as the consequence of the interaction of all Three Factors outlined in Chomsky (2005). This is schematised in the following:

- (3) UG + input + Maximise Minimal Means (MMM) → Adult Grammar

As this is the least relevant aspect of our discussion here, let us assume that UG (First Factor) provides the acquirer with a formal feature template of some kind, alongside the formal feature-referencing operations of Merge and Agree. Crucially, however, UG does not supply a (full) innately specified inventory of formal features from which acquirers make a “one-time selection” (*pace* Chomsky 2001: 10); it simply “directs” acquirers to consistently analyse the formal regularities in the input in specifically *featural* terms, with FE and IG serving to constrain the nature and extent of feature postulation, as outlined above (see Wiltschko 2014; Ramchand and Svenonius 2014; Biberauer and Roberts 2015 for some discussion as to how the [F]-systems that seem to be needed to characterise adult grammars may arise).

The nature of the input (Second Factor) that serves as the basis for grammar construction is central to our concerns. The notion that *input* – or “everything that the acquirer hears” – should not be equated with *intake* – or “what the acquirer actually attends to” – is by now well established (see i.a. Evers and van Kampen 2008; Gagliardi 2012; Lidz and Gagliardi 2015). Pinning down what precisely attracts the acquirer’s attention remains work in progress, however. In this regard, the MMM approach makes a prediction that appears to be supported both by research on child acquisition, on the one hand, and research on cognitive development on the other: if the developing child is seeking to maximise the resources at their disposal at all stages of the development process, we would expect them to particularly focus their attention on what is accessible to them at each stage of their development, “ignoring” what is inaccessible. Further, each additional piece of knowledge gained is expected to refine the domain of what is accessible, successively bringing into view more of the layered complexity that we would then expect language systems to exhibit (see Section 3 for some concrete discussion underlining the plausibility of the layered-complexity view).

Language acquisition studies have shown that child acquirers are already, prior to birth, sensitive to high-level prosodic systematicities in the input (e.g. the weak–strong or strong–weak signature that reflects the language’s head-initiality/-finality profile); and that more fine-grained prosodic properties (e.g. pitch, duration) continue to play a key role during the first year, i.a. helping prelinguistic acquirers to differentiate between content and function words and, so, by virtue of the phrase-edge location of the latter, to zoom in on individual phrases (see Gervain and Werker 2008 for overview discussion). There is evidence, then, that child acquirers harness their initial sensitivity to systematicities on the sound side of language to work their way into grammar.² Crucially, this initial focus provides them with

² In the case of sign languages, this initial sensitivity would, of course, be expected to centre on relevant aspects of sign-language prosody, which has been said to involve body posture and various manual cues (timing, size; see Sandler 2010, Sandler 2012 for an overview).

various kinds of *distributional* knowledge, which can then be fleshed out on the basis of input requiring sensitivity to both sound and meaning. In this connection, the distinction between the fully arbitrary form-meaning mappings that define classic Saussurean arbitrariness, and the still arbitrary, but more systematic form-meaning mappings that constitute grammar is argued to be particularly important. More specifically, Biberauer (2017a, in press) highlights the key relevance of so-called *systematic departures from Saussurean arbitrariness* – i.e. consistent departures from the arbitrary one-to-one form-meaning mappings that underlie the core content lexicon – in alerting the acquirer to a domain in which the postulation of (grammatical) formal features would facilitate more economical (in our terms, MMM driven) learning and knowledge representation (see also Schuler et al. 2016, among others, as cited by Cournane, and Pearl in press). These systematic departures include as follows:

- (4) a. doubling/agreement, i.e. two or more forms that map onto a single meaning. Where this doubling takes the form of inflection, we know that child acquirers are very sensitive to it from very early on (see Tsimpli 2014 for overview discussion and also Cournane’s discussion of the relevance of inflected versus uninflected *must*-complements);
- b. silence, i.e. a meaning which systematically corresponds to a lack of form, as in null arguments or ellipsis; and
- c. multifunctionality, i.e. a single form which is systematically interpreted differently depending on its structural environment.³ The English modals that Cournane discusses which exhibit both root and epistemic meanings are a case in point.

What is key here is that the MMM model suggests a principled basis for thinking about the components of the input that might trigger grammatical acquisition (i.e. the postulation of formal features), the sequence in which these might become accessible,⁴ and, consequently, the way in which an acquirer’s intake may become more complex as their grammatical knowledge increases over the course of acquisition. In essence, then, the MMM model leads us to expect that the Goldilocks approach that recent research into the development of vision and audition suggests

³ Given that formal features are only postulated where there is a *systematic* pattern to be captured – i.e. where there is something to gain by postulating a formal feature rather than memorising individual lexical facts – accidental homophony of the sort exemplified by English *bank* does not constitute multifunctionality of the kind that is at stake here.

⁴ Cf. again Tsimpli (2014) on the kinds of insights acquisitionists have already gained into what is acquired very early, early, late, and very late.

holds in these domains may also apply in the domain of language acquisition (see Kidd et al. 2012, Kidd et al. 2014 for the vision and audition studies). That is, acquirers who are seeking to make maximal use of the means at their disposal at any given point will consistently focus on input that is “just right,” ignoring that which is unduly complex for their stage of development, and also minimising attention to any which has become “too simple” (as this has already been accounted for and is therefore “uninteresting” and not worthy of cognitive resources).

With this much in place, let us return to this commentary’s primary objective, namely demonstrating how Cournane’s child-driven change proposals seem to be very well motivated from an MMM perspective.

3 Overgeneralisation and retraction in the MMM model

The claim at the core of Cournane’s proposals is that the kind of grammatically based overgeneralisations that children make during the course of acquisition are precisely of the kind that can, under the right circumstances, produce grammatical change. More specifically, she proposes that “children generalize when they discover the basis for a rule or other systematic relation, and then gradually retract by learning sub-regularities, exceptions, blocking factors, or other factors governing the selection of one form (or meaning) over another” (p. 143). The same idea is central to the MMM take on acquisition, and, by extension, variation and change, as I will now seek to demonstrate.

As set out in the previous section, grammar acquisition on the MMM model entails the Three Factors-mediated identification of the formal features – henceforth [F]s – that underlie the morphosyntactic systematicities in a given system. To begin with, the acquirer is assumed to be “ignorant” of much of the formal complexity of the system they are acquiring, much of which will also initially not be accessible as part of the intake. Where the acquirer does pick up on a systematic departure from Saussurean arbitrariness, an [F] is postulated, thus minimally violating FE in (1). Once the relevant [F] has been postulated, IG in (2) leads us to expect the acquirer to want to use the new [F] as much as seems feasible at the relevant stage of acquisition. UG, then, drives the MMM acquirer to capture an accessible grammatical regularity in the intake in [F] terms, giving a grammatical rule, and MMM drives acquirers who have not yet formalised all the systematic departures from Saussurean arbitrariness in their grammars to want to “over-use” it. Ignorance-driven overregularisation, then, is predicted to be a characteristic of child acquisition, particularly at the earlier stages of acquisition.

And there would appear to be plenty of evidence for this kind of overregularisation. Consider, for example, Schönenberger's (2001) careful study of Swiss German (SwG)-acquiring children, who, until the age of 5 years produce Verb Second (V2) in a range of embedded contexts that are not available in the adult grammar.⁵ Like Standard (spoken) German, Adult SwG permits V2 in the complementiserless complements of bridge verbs, and also, under certain interpretive circumstances, in *wil* (= *weil* – 'because')-clauses and in embedded *wh*-interrogatives; additionally, it also permits embedded V2, again under restricted circumstances, in *wh*-relatives. Until the age of 5, SwG-acquiring children overgeneralise the availability of embedded V2, grasping that this option is available in complementiserless and, subject to interpretive restrictions, also *dass*-introduced bridge-verb structures, and *wh*-introduced clauses like those in (5) but failing to appreciate that overt complementiser-containing structures and *wh*-introduced clauses like those in (6) are not compatible with embedded V2/V-to-C raising (see i.a. Krifka 2001; Freywald 2008, Freywald 2014 for discussion of the circumstances under which *dass* +V2 and V2 in embedded *wh*-interrogatives is possible):

- (5) a. Ha tenkt [das **sigi** der].
 have thought that be yours
 'I thought this is yours.' (Eliza: 5;04; Schönenberger 2001: 77).
- b. Ich säg [dass das **isch** de Uhu].
 I say that this is the owl
 'I say that this is the owl.' (Eliza: 5;01; Schönenberger 2001: 90).
- c. Du muesch röötle [wär **hät** Hosebändel vo üüs].
 you must guess who has braces of us
 'You have to guess which of us is wearing braces.'
 (Maira: 5;00; Schönenberger 2001: 125).
- (6) a. Und do häts gschpilt [dass s Ross **goot** zum Zauberer].
 and then has.it play.PART that the horse goes to.the magician
 'And then they made/acted out that the horse goes to the magician.'
 (Maira: 5:00; Schönenberger 2001: 279).

⁵ Matrix V2 is a very early-acquired property in Swiss German, as in V2 languages more generally, being in place by around age 2 (see again Tsimpli 2014). The embedded V2 that is at stake here is a more complex, partly semantically, partly discourse-conditioned property, which therefore meets Tsimpli's criterion that successful acquisition of (very) late-acquired properties involves syntax- and possibly even language-external resources.

- b. De Räuber hät das gar ned gern [dass **isch** ebe de
 the robber has that really not fond that is just the
 Haas ufem Baum obe].⁶
 rabbit on.the tree up
 ‘The thief didn’t like it one bit that the rabbit had gone up into the tree.’
 (Eliza: 5;00; Schönenberger 2001: 89).
- c. Ich weiss [wo **häts** ä Schär].
 I know where has.it a scissors
 ‘I know where there is a pair of scissors.’
 (Eliza: 5;05; Schönenberger 2001: 126)

Schönenberger analyses the pre-age-5 SwG child grammar as an underspecified one in which the finite verb systematically moves to the lowest C-head, Fin, with complementisers like *dass* and *wil* being specified as exclusively [Force]-encoding elements, and *wh*-elements being specified only for [wh]. By contrast, complementisers in the adult system are specified as both [Force]- and [Fin]-encoding elements, meaning that embedded V2 is not available except in “CP-recursion” contexts, i.e. those in which a clause with matrix force is compatible with an “embedding” verb (see i.a. Vikner 1995 on so-called *limited embedded V2*). Further, *wh*-elements in the adult grammar may be specified as just [wh] or [wh, DR] where [DR] signifies “discourse-related,” and embedded V2 specifically requires [wh, DR]-specified *wh*-elements.⁷ The relevant differences are schematised in (7) and (8):

- (7) a. ... $V_{\text{matrix}} [_{\text{ForceP}} \text{dass/wil-Force}] [_{\text{FinP}} V_{\text{finite-Fin}} \dots]$ (Child grammar)
 b. ... $V_{\text{matrix}} [_{\text{Force/FinP}} \text{dass/wil-Force/Fin} \dots]$ ⁸ (Adult grammar)
 c. * ... $V_{\text{matrix}} [_{\text{Force}} \text{dass/wil-Force}] [_{\text{FinP}} V_{\text{finite-Fin}} \dots]$ (Adult grammar)

⁶ In addition to overgeneralising V-to-C raising in embedded contexts, both Moira and Eliza overgeneralise the non-subject-raising option in German (see i.a. Haider 1993, Haider 2010 for detailed discussion).

⁷ Two points are worth noting here. First, no significance should be attached to the specific [F]s referenced here; I simply follow the original author for expository purposes. Second, the availability of embedded *wh*-interrogative V2 may not relate only or even at all to the specification of *wh*-elements in the relevant structures; consider, for example, McCloskey’s (2006) proposal that the interpretively determined “size” of the clause selected by a *wh*-selecting matrix predicate determines the availability of embedded *wh*-V2. Our objective here is simply to make the point that the availability of embedded V2 in SwG-acquiring children plausibly relates to *featural underspecification* in their grammars at the relevant stage of development; the precise locus of that underspecification may thus well depart from what is presented above.

⁸ The fact that overt complementisers encode both [Force] and [Fin] could, of course, also be represented in movement terms, as Schönenberger (2001: 305) proposes:

- (i) b. ... $V_{\text{matrix}} [_{\text{ForceP}} \text{dass/wil-Force}] [_{\text{FinP}} t_{\text{dass/wil-Fin}} \dots]$ (Adult grammar)

- (8) a. ... V_{matrix} [_{ForceP} *wh*-[*wh*] [_{FinP} V_{finite} .Fin ... (Child grammar)
 b. ... V_{matrix} [_{ForceP} *wh*-[*wh*, DR] [_{FinP} V_{finite} .Fin ... (Adult grammar)
 c. *... V_{matrix} [_{ForceP} *wh*-[*wh*] [_{FinP} V_{finite} .Fin... (Adult grammar)

Key for our purposes here is (a) the fact that the SwG children overgeneralise a pattern in the adult grammar at a stage where their grammars are still not fully specified, and (b) the fact that they are able to retreat from this overgeneralisation once the more complex, partly semantically, partly discourse-conditioned input that forces a revision of the underspecified grammar is accessible to them (see note 5, and also Schönenberger's discussion for relevant detail). In the SwG case studied by Schönenberger, then, initial incrementation does not result in change: a "superset grammar" postulated on the basis of initial ignorance is suitably constrained when further information becomes accessible (see Biberauer in press for more detailed discussion).

That this short-lived case of input-divergence should nevertheless be of interest to diachronically oriented researchers is strikingly demonstrated by the case of modern Afrikaans (henceforth *Afrikaans*). Afrikaans deviates from its West Germanic relatives in permitting embedded V2 *wh*-interrogatives not only in the more generally sanctioned (implied) "true question" structures illustrated in (5b,c) and also available in many colloquial varieties of English (McCloskey 2006) (see (9a)) but also in structures like (9b,c), which are not compatible with a "true-question" interpretation:

- (9) a. Ek wonder [wat **eet** hulle saans.]
 I wonder what eat they evenings
 'I wonder what they eat in the evenings.'
 b. Ek het uitgevind [hoe **kom** ons by die gebou in].
 I have out.PART.find how come us by the building in
 'I found out how we (can) get into the building.' (Biberauer 2017b: 80)
 c. Ek weet goed [wat **is** sy pyn die laaste tyd].⁹
 I know good what is his pain the last time
 'I know very well what's been bugging him recently.'

In the contexts where V2 *wil*- and *dass*-introduced clauses are permitted, the assumption is that the complementiser-associated Force-Fin structure embeds a further (matrix-like) Force-Fin structure, i.e. CP-recursion (see main text).

⁹ This is an attested example, produced by a 34-year-old native-speaker and recorded by the author.

As we have seen, SwG children go through a stage, which lasts until quite late in child-acquisition terms, in which they overgeneralise the availability of V2 in embedded *wh*-interrogatives to include structures like those in (6c/9b,c), retracting from this grammar when the relevant interpretive input becomes accessible. In the Afrikaans case, this retraction fails to occur, with the result that embedded V2 has become an established feature not only in “true question” structures like (5c/9a) but also in “propositional” complements of the kind illustrated in (6c/9b,c), i.e. we see embedded V2 in Afrikaans wherever a *wh*-clause is selected. In Afrikaans, then, the initial incrementation also evident in SwG does appear to have produced change. Although this requires further investigation, the fact that the input required to produce the SwG retraction is discourse-sensitive may account for the failure of Afrikaans-acquiring children to retreat from their overgeneralised grammar: such input is readily perturbed in contact situations like those that hold in the Afrikaans case.¹⁰ More generally, the MMM model predicts that later-acquired properties, requiring acquirers to receive and pick up on input

10 It is worth noting that while Trudgill (2011)-style “simplifying” adult second-language (L2) acquisition may have played into the generalisation of embedded V2 in *wh*-complements, this consideration alone does not seem sufficient in accounting for the patterns observed today. L2 English varieties may be more liberal than the majority of colloquial L1 varieties in permitting embedded V2 in *wh*-contexts – consider (i) and see Pozzan (2011) for detailed discussion:

- (i) This would give us the opportunity to know more about [what **are** we going to do in future].
(written English L2 from International Corpus of Learner English, cited in Pozzan 2011: 147)

They do, however, seem to retain the constraint that is also evident in the more liberal L1 varieties – e.g. Belfast English, and African American Vernacular English (AAVE); see (ii) – that embedded V2 *wh*-complements require the speaker to be ignorant of the answer, meaning that there is still a form of question in play (Green 1996).

- (ii) I don't know how **did** I do it.

(AAVE; Labov et al. 1968: 299)

As (9b) in the main text shows, this constraint does not hold in Afrikaans. It appears, then, that the Afrikaans system must be distinguished from both what is seen in L2 systems and what we see in more liberal L1 varieties. The possibility that such more liberal, but still, in embedded V2 terms, restricted systems may have been an intermediate stage in the development of the present-day Afrikaans system, of course, remains. And, relevantly for the discussion here, it is clear that a putative intermediate system of this kind would constitute an intermediate overgeneralisation from the original SwG/less liberal colloquial Englishes system. Further investigation is required to establish whether a progressive incrementation sequence of this kind can be identified.

that is complex in some sense – e.g. by virtue of the nature of the contrast(s) it encodes, or by virtue of its specialised nature and, hence, scarcity, etc. – will be vulnerable to change (see Biberauer and Roberts 2012, Biberauer and Roberts 2017). Properties of this type, then, might be expected to reflect the kind of grammatically based overgeneralisation that both Courneau’s developmental incrementation model and the MMM model discussed here predict.

Space considerations preclude the discussion of further cases of variation and change that seem plausibly ascribable to the kind of child-driven overgeneralisation and retraction that we have discussed here. The reanalysis of the [plural]-feature distinguishing *was* and *were* in certain British varieties of English as a [polarity]-feature would seem to be a case in point, however, given what is known about the difficulty of acquiring verbal – as opposed to nominal – number, and the evidence that English acquirers reliably connect auxiliaries with polarity (notably, negation, and questions) before definitively establishing their role in the tense and agreement domain (see Biberauer in press for discussion).¹¹

I highlight this case to make the point that the kind of overgeneralisation-driven change discussed above is not limited to contact situations; it appears to arise wherever an acquirer is faced with the challenge of formally characterising a (perceived) grammatical regularity. Importantly, this challenge need not involve structural ambiguity, as has often been suggested in the literature on diachronic change. It could simply be a grammatical component that is underspecified relative to the adult grammars generating the input and to which the acquirer is able to bring an already-acquired and empirically very well-supported grammatical device that seems “just right” at the stage at which they seek to formalise the underspecified regularity. The cases that we have focused on here are of this kind. Alternatively, it could be that there is in fact no underspecification in the developing grammar relative to the adult grammar, but that the acquirer “boosts” the regularity of a pattern in the input, ascribing it a formal status that it does not have in the adult grammar. Cyclic developments like Jespersen’s Cycle and grammaticalization phenomena involving the kind of formal reanalysis that has been much discussed in work on generative diachronic syntax during the past 20 years or so would seem to instantiate cases of this kind. In the latter cases, the overregularisation has demonstrably been

¹¹ In the relevant varieties, *was* and *were* are specialised for polarity, as illustrated below (unstarred examples recorded by the author):

- (i) They **was**/***were** pretty happy about that win.
- (ii) He **weren’t**/***wasn’t** telling.

successful, producing change. In cases, where it does not, the key factor appears to be the availability of further, crucially more complex input that the acquirer could not initially access, for whatever reason.

4 Conclusion

The fact that two independently proposed models should converge on the same ideas about any phenomenon is, of course, not necessarily indicative of their likely correctness. In the present case, however, it seems clear that Courmane's developmental incrementation model and the MMM model make novel predictions about both acquisition and change that seem to be empirically substantiated and that warrant further investigation. If the MMM model is on the right track, the patterns of overgeneralisation and retraction predicted by both models ultimately follow from the way a general-cognitive rather than UG-specific consideration – MMM – regulates the acquirer's UG-mediated systematicisation of the input. As a general-cognitive bias, we would expect MMM to be active not just in child acquirers, but also in adults. As such, one might expect adult learning, too, to exhibit overgeneralisation and retraction; given the significant discrepancy in the “means” available to adults compared to children, however, the *bases* on which these overgeneralisations and retractions are made may be very different. Plausibly child-driven change, then, is likely to exhibit a distinctive character. What both the developmental incrementation and MMM models suggest is that closer investigation of input-divergence or “going beyond the input” scenarios in child language acquisition may shed new light not only on the nature of this distinctive character but also on the circumstances in which it arises.

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