On the formal heterogeneity of expletive subjects: insights from acquisition*

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1. Introduction

The acquisition of (overt) subjects in child language production proceeds via an early, non-target-like subject-omission stage. Its root(s), however, remain contested, with several non-mutually-exclusive factors proposed to account for early subject drop. Competence accounts advocate *grammatical* causes, such as parameter missetting or syntactic truncation (i.a., Hyams 1986, Hyams and Wexler 1993, Rizzi 1993/1994, Orfitelli and Hyams 2012). Yet, it has also been suggested that subject omission fully (or partially) reduces to performance considerations like utterance/VP-length (Bloom 1970, Valian 1991). Pragmatic factors, like topicality, have also been acknowledged (Valian et al. 1996, Hauser-Grüdl 2010). Importantly, we highlight in this work that existing accounts have typically treated subjects as fully *developmentally homogenous* – in the sense that the proposed causal factors behind pronoun drop should (be able to) affect all subject types.

The generative notion of 'subject' is, conversely, known to be complex and formally *distributed* (McCloskey 1997, Svenonius 2001, Poole 2016): the current consensus is that subjects are a complex of formal properties (thematic, case, and discourse-related) associated with different structural positions (e.g., SpecvP/VoiceP, SpecTP, etc.), and that properties ascribed to 'subjecthood' are distributed across functional heads. At the same time, 'subjecthood' encodes properties known to be both early-acquired, including argument structural properties (see Lidz 2022, for a review), and late-acquired, such as finer-grained aspects of the topicality of null/overt DPs (Serratrice et al. 2004). A question that therefore arises at this point is whether all subject *types* are equally affected by pronoun drop in acquisition or not, and whether their multifaceted syntacticosemantic nature may play into acquisition. Conflicting results have been reported to date: comparable rates of drop of referential vs. expletive subjects were observed in Hyams (1986), but not in Valian (1991) and Valian et al. (1996). A possibility that has not been explored to date is that these appar-

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ently inconsistent results may reflect finer-grained distinctions among expletive types, and that their patterning relative to referential subjects may have been overlooked. This is one of the directions that the present paper explores.

We challenge the traditionally assumed developmental homogeneity of subject types through the lens of *expletive subjects*. Research to date on expletive development is limited to English and Dutch (Valian 1991, Schäfer and Roeper 2001, van Dijk and Coopmans 2013) and work on subject acquisition furthermore does not distinguish among expletive types (though cf. Kirby and Becker 2007, and Gotowski and Aravind 2025, for exceptions). In section 2, we summarize and build on a recent corpus study on German, English and Dutch monolinguals (Bosch and Biberauer to appear). The data reveals a previously unnoticed asymmetry: children *selectively* drop expletive subjects. *Existential* expletives are almost always overtly expressed, while *weather* expletives show high omission rates. We highlight the data's significance for existing theoretical approaches to early subject drop, and call for an elaboration of the formal, featural ontology assumed in the development of subject types in competence-based approaches. We make this proposal explicit in section 3, where we expand on Rizzi (1986) and integrate the notion of categorial differentiation (à la Dresher's 2009 Successive Division Algorithm) to derive the observed order of acquisition of subject distinctions.

Taking these empirical and theoretical results as our point of departure, we then explore a second research direction in section 4, where we argue that the results complexify the often-assumed ontogeny-diachrony link (e.g., Lightfoot 1979). At first sight, the historical development of expletives does not (fully) map onto developmental trends. Building on our proposed view of child learners in section 3, we advance a tentative proposal that aims to derive both the developmental and diachronic patterns discussed in sections 2 and 4. We conclude in section 5.

2. The acquisition of expletive subjects in West Germanic

This paper builds on a recent study on the acquisition of expletive subjects in West Germanic children (Bosch and Biberauer to appear). We provide a concise summary of the results below, but we refer readers to Bosch and Biberauer (to appear) for a more comprehensive break-down.

2.1 Children selectively drop expletive subjects: a corpus study

This study tracked the development of expletive types, focusing on weather and existential predicates, in 12 German, 10 English and 7 Dutch children in CHILDES. Implementing a distinction between weather vs. existential predicates in the data collection revealed an important asymmetry: expletive drop is *not* homogenous, but rather affects weather expletives in particular (53.3% null across all files), while existential expletives are largely overt (6.1% null; $W = 17, p < .0001$). Figure 1 plots overt expletive production over time. Weather expletives display highly variable production rates, ranging from approximately 0–75% across most age ranges (months 20–50), and often falling below 25% in the earlier

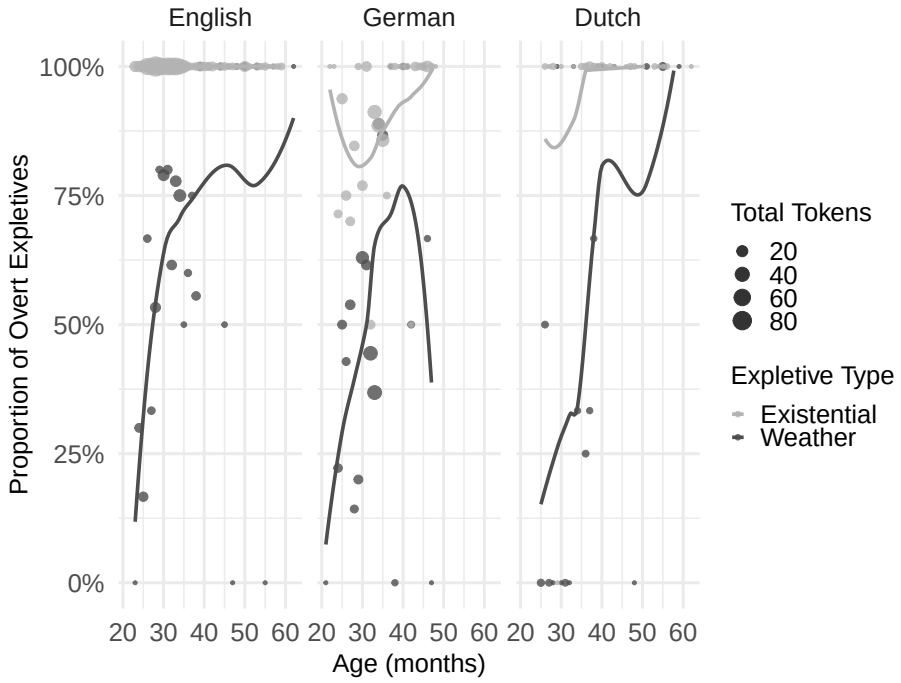


Figure 1: Overt expletive use over age.

period (months 20–30). Existential expletives, by contrast, are almost always produced in at least 75% of obligatory contexts, with no detectable dropping in one language (English).

Crucially, weather expletives patterned differently from referential subjects, which are usually overt in Germanic children in finite contexts. Valian (1991) reports a mean null subject rate of 30% before age 2;6 – a proportion which drops significantly to 5-11% after 2;6. This sets referential subjects apart from weather expletives, which feature high omission rates (<75%) until months 40-50.

Further analysis of individual trajectories confirmed this trend: first, for every child who showed non-target-like production of some expletive subjects, it is always weather expletives that showed low production rates, which gradually increase with age (Figure 2). Second, not only was weather-expletive drop abundant at early stages, it also appeared to be retracted from abruptly in several children; for example, in the English child Adam, weather-expletive production was at 0-25% between 30-40 months, but increased to 100% after month 40. Additionally, in one syntactically highly advanced child (Merit, German), the generalization reported – high subject dropping being largely restricted to weather expletives – is broader and appears to extend to impersonal expletives. Impersonals, like existentials, resisted dropping. This child-specific, but possibly significant, data point, suggests that the difficulties with weather expletives are sufficient to persist until more advanced stages of syntactic development, for at least one child.

Confounding factors were also considered. The study rules out the possibility that the acquisition of the relevant predicate(s) associated with each expletive type is indepen-

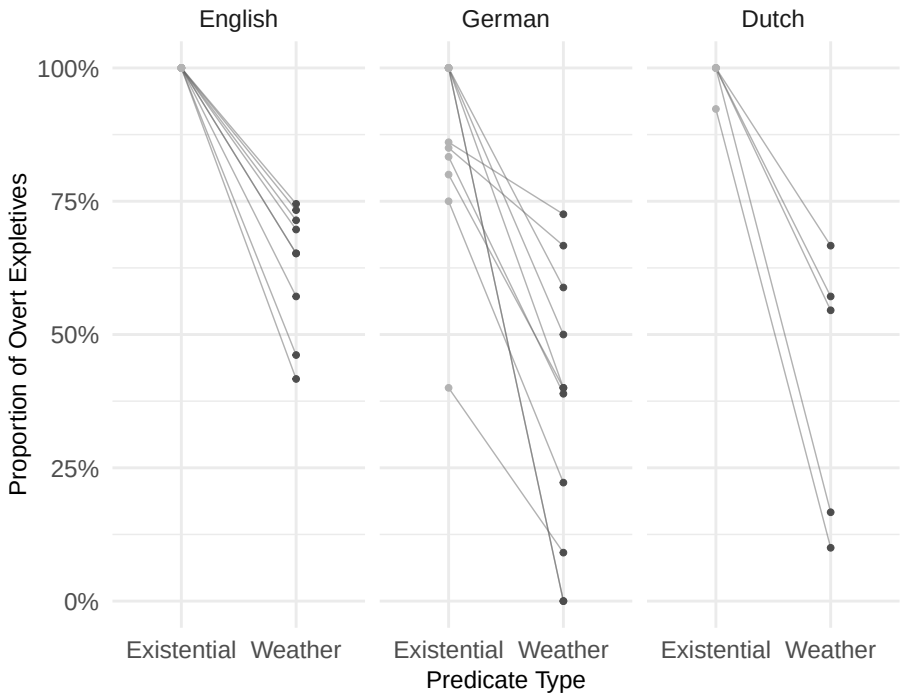


Figure 2: Within-child slope plot of mean overt expletive rates by predicate type.

dently responsible for the (lack of) delay in expletive production. A comparison of the first emergence of weather and existential predicates showed comparable emergence timings ($V = 62, p = 0.1891$). Finally, performance-based accounts of asymmetries in subject drop are also shown to be insufficient. The VP-length effect, for instance, suggests that the longer the length of the VP is in a given utterance, the more likely it is that the subject will go unexpressed (Bloom 1970, Valian 1991, Hyams and Wexler 1993). Contrary to expectations, however, weather constructions with null expletives show shorter, not longer, VP-lengths (mean = 2.31, vs. 3.50 words for (overt) existentials, $W = 15220, p < .0001$).

Overall, this dataset unveils a novel three-way *grammatically-conditioned* asymmetry. We turn now to its explananda: the developmental heterogenity in the behaviour of subject types requires a competence-based explanation that accounts for (i) why referential vs. weather vs. existential subjects behave differentially, and (ii) why the observed relative acquisition ordering is found, and not another logically possible one.

2.2 Implications for theories of early subject drop

We propose that existing competence-based analyses of subject drop rely on *too coarse* a typology of subject types to capture the developmental tripartition just reported.

Parameter missetting approaches (Hyams 1986, *et seq.*), arguably the most influential competence-based accounts of child subject drop, are grounded primarily in Rizzi's (1982) typology, which distinguishes natural classes of subjects definable in terms of the fea-

tures [±pronominal] and [±referential]. Hyams' original proposal is that children initially (mis)set the null subject parameter to a default [+pronominal] (i.e., null subject) value, thereby allowing the omission of all subject types, including expletives, irrespective of the target language. Rizzi (1982) predicts wholesale (lack of) dropping of pronominal subjects, i.e., either null ([+pronominal]) or non-null ([−pronominal]) subject languages, and also distinguishes null subject languages that only allow drop of [−referential] (i.e., expletive) subjects. However, this system predicts at most a *binary* division in developmental behaviour within subject types (referential vs. expletive), *modulo* confounding factors such as performance effects.

The results in Bosch and Biberauer (to appear) call for a reanalysis of this latter conclusion, on two grounds. Different dropping rates are observed across referential and (some) non-referential subjects, as in Valian et al. (1996), suggesting the developmental split must minimally also accommodate [±referential]. However, the subject-acquisition patterns in §2 do not straightforwardly reduce to *just* a bipartition in terms of [±referential] à la Rizzi (1982): differential behaviour is observed *within* the class of [−referential] subjects. A finer-grained basis must thus underpin early subject drop, as we suggest in the next section. A novelty in the present work lies in identifying an asymmetry across expletive *types*, here weather vs. expletive (see also Kirby and Becker 2007, who also probe distinct types of English expletive/referential *it*, and which we return to in §4). That binary parameters are too restrictive has been independently remarked in the generative typology literature (see Holmberg 2010, on the null subject parameter); our results corroborate this, demonstrating that the original Rizzian typology of subject types is also too coarse-grained for acquisition (see also Hyams 2011, for a review of some empirical issues faced by traditional binary parameters). The case for further formal differentiation similarly applies to non-parametric accounts, such as the PRO hypothesis (Sano and Hyams 1994) and Rizzi's (1993/1994) Root Subject Drop.

We therefore take selective expletive drop to endorse a competence-based explanation, but, more pointedly, one that goes *beyond* classic binary partitions in subject types (Rizzi 1982). We present such an account in §3, which we then extend in §4 to the (superficially contradictory) picture that emerges from the diachrony of expletives.

3. A differentiation-based approach to the development of subject types

Our contribution elaborates the formal basis of children's distinctions among subject types and advances a concrete proposal for the developmental mechanisms and ordering underlying the emergence of natural classes of subjects.

First, we propose to conceptualize the development of subject categories as an (at least partly) emergent process of so-called *categorial differentiation* and granularization. This follows existing work on phonological (e.g., Dresher 2009, Cowper and Hall 2014) and syntactic (e.g., Biberauer and Roberts 2015) categories. Dresher's (2009) Successive Division Algorithm proposes that learners successively divide a categorial inventory by assigning contrastive features to newly-acquired natural classes. Work by Biberauer and Roberts (2015) on the so-called NO>ALL>SOME learning path also argues, in a similar spirit, that the induction of syntactic categorial and parametric distinction proceeds hierarchically,

towards successively finer-grained divisions, correlating with the acquisition of new contrastive features. We assume, with this work, that more 'generic/coarse' natural classes of subject types are acquired first, being featurally simpler and maximally contrastive. These then form the basis for the later acquisition of finer-grained features that distinguish other subject types.

Applying the logic of existing differentiation proposals to how children 'carve out' the subject and nominal space entails that not all formal features encoding the differences between subject types are equally accessible to the child at the start. The differential timing of feature acquisition then makes predictions for which (feature-based) natural classes should be earlier-acquired. In what follows, we apply categorial differentiation to the space of *nominal (*[*N*]*-specified)* elements broadly, which includes, but is not limited to, subjects. A claim of our analysis is that the acquisition of featural distinctions in the nominal domain usefully predicts the kinds of subjects and expletive types children are able to encode at earlier stages.

As our formal basis, we draw on Rizzi's (1986) updated tripartite typology of subjects (*pro*s), which is defined by two features: [±referential] and [±argumental]. This typology therefore distinguishes between referential subjects ($pro_{[\text{referential}]}$), and two types of expletives, so-called 'pure' expletives (e.g., existentials, impersonals; $pro_{[\text{expl}-\text{arg}]}$) and 'quasi-argumental' expletives (e.g., weather expletives, $pro_{[\text{expl}+\text{arg}]}$; see Chomsky 1981). Rizzi (1986) thus assumes three UG-given subject-types, each endowed with a feature bundle bearing different values for [±referential] and [±argumental]. However, absent some ad-hoc notion of 'default' for plus or minus feature specifications, the two-way distinction between [±argumental] will not itself explain why only the production of [+argumental] (i.e., weather) expletives is repeatedly delayed in acquisition.

Our proposal is that the relevant distinction follows from a feature associated with nominal elements generally. That is, consideration of the features that children have to acquire to carve out the broader space of *nominal* elements – which we will refer to as *DP*s for consistency – helps us to understand the asymmetries observed with expletives. Specifically, we expand the feature set of Rizzi (1986) and propose a role for *topicality* ([±topic]) in how children flesh out the formal specifications of nominal elements, beyond [±referential] and [±argumental]. A distinction that has been argued to be early-acquired is the basic topic-comment distinction; that is, a distinction between a salient entity identified by a speaker (the topic), about which some information is provided (the comment) (de Cat 2007, Bambini and Torregrossa 2010, van Kampen 2010, Bosch and Biberauer 2025). This then leads us to expect that nominal distinctions involving [±topic] may be early-acquired. Tellingly, existentials/presentationals are rhematic, i.e., necessarily non-topical, structures in which new information is presented. Significantly, existing syntactic literature has argued that existential expletives are featurally linked with, and derivationally start with, their (non-topical) associate DPs (see Uriagereka 1995, on the Big DP analysis, and Kayne 2008 for a specific application to expletive *there*). The Big DP structure plausibly renders the existential expletive not only [−referential, −argumental], but also [−topic]. The schematized expletive-associate Big DP below illustrates:

(1) is [$_{\text{DP}}$ there [−topic] [$_{\text{Associate}}$ a book [−topic]]] → *There is a book.*

Crucially, the additional [±topic] featural specification does *not* apply to weather expletives, which are acquired as independent DPs, with no associates. [±topic], a feature independently needed to distinguish referential DPs and, by hypothesis, acquired early, therefore helps, via the associate, to flesh out the formal specification of existential, but *not* asssociate-less weather, expletives. We argue that this featural difference between existential and weather expletives, coupled with a differentiation-based learning path, may provide a handle on why existential expletives are exponed first by children.

Having laid out the formal toolkit we assume, we set out the acquisition path for nominal elements as follows, with each successive step involving a further degree of 'granularization' of the child's nominal space: (i) children first distinguish the class of [±referential] elements. That they would start by differentiating [±referential] over [±argumental] or [±topic] elements follows if we consider that [±referential] is developmentally grounded on more accessible cues, namely a visible and perceptually salient entity (see Bambini and Torregrossa 2010, and also Kirby and Becker 2007, on the early acquisition of referential uses of pronouns).

Then, (ii) we propose [±topic] is plausibly distinguished subsequently to encode the difference between 'what the utterance is about' and the comment component. We take step 2 to introduce a 'refinement' over the earlier-acquired [+referential] specification – that is, a finer-grained distinction between topical/non-topical DPs within the domain of visible/referential entities. The division into [±topic] therefore applies within natural classes that can be relevantly characterized in 'aboutness' terms, namely the class of [+referential] elements. As noted above, this is an early development. It is at this step 2 that a crucial difference within the class of [−referential] DPs emerges: the newly introduced [−topic] specification on the referential associate in existential structures is mirrored on the [−referential] existential expletive within its Big DP (see (1)). Existential expletives thus gain a featural specification ([−topic]) by virtue of the structural configuration in which they originate; weather expletives, by contrast, lack any structural connection to [+referential] DPs and therefore remain only minimally specified as [−referential] (at this point, children have yet to acquire [±argumental]). Lacking a feature that uniquely characterises this natural class, weather expletives therefore fail to integrate into the broader class of [−referential] elements – an integration we take to depend on the acquisition of [±argumental]. This underspecification, we argue, results in the observed high omission rates for weather expletives.

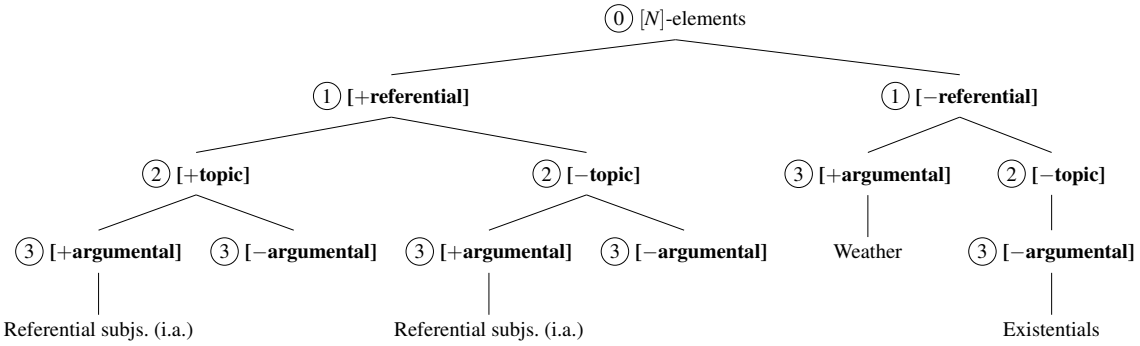
Finally, (iii) step 3 involves the acquisition of a more grammar-oriented contrast, [±argumental], which encodes the *(non)thematic* status of all nominal elements (argument vs. adjunct). Following the logic of the Maximize Minimal Means (MMM) approach to grammar building (see Biberauer 2019), we assume that the acquisition of [±argumental] will generalize maximally across the nominal domain[1]. All nominal categories are thus specified for

[1]Note that the acquisition of [±topic] also reflects the MMM-driven maximal feature-extension logic: in this case, the newly acquired feature applies only to the domain of potentially (non)-topical nominals, i.e.,

[±argumental] at this stage. Consequently, [+referential] elements, already specified for [±topic], are further enriched with [±argumental], and, at this point, weather expletives – previously lacking distinctive integration into the nominal system – also receive a featural characterization, emerging as the [+argumental] subgroup within the [−referential] class. This finalizes a fully specified nominal system integrating referential, existential, and weather subjects.

We thus assume the differentiation tree of nominal ([*N*]) elements as below, with [−topic] crucially providing an early featural specification ('latching point') for existentials. The feature ranking in (2) schematizes the sequence in which nominal categories are assumed to emerge: [±referential] heads the ranking, followed by the acquisition of [±topic] and, finally, [±argumental]. This successive division tree therefore combines the three developmental stages outlined above, each of which elaborates prior developmental stages by differentiating already-existing natural classes by means of a new feature. These are numbered next to each feature for ease of readability, where '0' stands for an undivided categorial space of nominal elements.

(2) [±referential] ≫ [±topic] ≫ [±argumental]



A range of productive developmental questions remain for future work. In particular, the behaviour of expletive types in other languages, including null subject languages (e.g., French *il* and *y*, Catalan *hi*, Italian *ci*, among others), remains largely unexplored. Our account should also integrate the behaviour of impersonals observed in Merit if data from additional children replicate her developmental profile. Confounding effects of predicate type (e.g., copula vs. lexical verb) should also be explored in future work: existential constructions, and some weather constructions often feature copula verbs, which are known to exhibit lower rates of subject drop (e.g., Hyams 2011).

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those that could *potentially* be 'what the sentence is about', which is the domain of [+referential] nominals. As such, maximal extension of the [±topic] feature does not directly apply to the [−referential]-specified expletives. As indicated in the main text, existential expletives gain a [−topic] specification *indirectly*, by virtue of their structural combination with [−topic]-specified referential DPs.

4. An apparent mirror image: diachrony

First language acquisition is central to generative theories of change, which take innovative child analyses to potentially feed changes reflected in historical records. Applying this view to the diachrony of expletive subjects, however, raises challenges. In this section, we show that our data constitute a case where ontogeny does not straightforwardly recapitulate diachrony (cf. Lightfoot 1979, *et seq.*). We nonetheless argue that a unified account of the developmental and diachronic facts is both possible and desirable.

For the history of Germanic, it is well-established that weather (quasi-argumental) expletives emerged *before* existential and other 'pure' expletives (Haiman 1974, Silva-Villar 1996, Williams 2000, Richards and Biberauer 2005, Fuß and Hinterhölzl 2023). This yields a mirror image of the acquisition trajectory observed in West Germanic children. At the same time, the broader crosslinguistic diachronic picture reveals further variation. Northern Italian Dialects (NIDs), for instance, differ in whether they lexicalize an overt weather expletive. NIDs with *full* subject clitic (SCL) paradigms follow the Germanic pathway, giving rise to an implicational hierarchy in which weather expletives develop first: weather verbs $>$ existentials $>$ epistemics $>$ impersonal *si* $>$ impersonal deontics (Renzi and Vanelli 1983, Pescarini 2014), see Table 1. By contrast, this hierarchy breaks down in dialects with *partial* SCL paradigms, where weather expletives may remain null despite the presence of other expletive types (Pescarini 2022).

Table 1: Expletive clitics in non-referential environments (Pescarini 2022:6).

Datapoint	**Weather v.**	**Existential v.**	**Seem-Type v.**	**Impersonal se**	**Necessity v.**
Carcare, Liguria	U ciov	U j-è	U smija...	U s diz	U bisogna
Cesena, Em.Romagna	E piov	U j-è	E per...	U s dis	Ø bisogna
Monno, Lombardy	El plof	El g'e	El par	Ø s dis	Ø gna
Rocca P., Veneto	El piof	L'è	Ø somea	Ø se dis	Ø moza
Aldeno, Trentino	El piove	Ø gh'e	Ø par	Ø se dis	Ø bisogna
	'it rains'	*'there is . . .'*	*'it seems that . . .'*	*'one says'*	*'it is needed . . .'*

This raises the issue of what conditioned the differences in expletive realization across these varieties, and, indeed, how such variation is to be reconciled with an acquisition-driven approach to diachrony. We propose that appearances turn out to be illusory under well-motivated assumptions about acquisition. Our tentative suggestion is that variation in diachronic outcomes can be tied to how children successively elaborate their existing (subject) system. More concretely, we predict that the 'starting point' for the child (e.g., a language with primarily null versus primarily overt referential subjects) will influence how nullness/overtness is extended to other subject types, like expletives (see Biberauer 2018).

In accordance with the logic of Successive Division and NO>ALL>SOME paths, we adopt a view under which learners are predisposed to *extend* already-established features to new contexts, unless the input forces finer-grained distinctions. Put another way, we take early stages of acquisition to provide a form of grammatical scaffolding: structures acquired first constrain how the system is subsequently elaborated (Biberauer 2019). In this vein, we propose an *extension-based* diachronic account of expletive realization; namely,

we suggest that historical patterns can be derived from learners' tendency to extend (or not) earlier-acquired phonetic specifications (null vs. overt) to newly acquired subject types.

Our account rests on two acquisitional premises. First, since referential subjects are acquired early, we might expect their phonetic realization – and, especially that of *pronominal* referential subjects – to condition learners' hypotheses about later-acquired pronominal subject categories, in particular expletives.[2] Second, we assume, as per above, that weather expletives constitute the featurally closest natural class to referential subjects: both are specified [+referential, +argumental] in the featural decision tree introduced above, differing only in their [±topic] specification. We consider historical Germanic and NIDs in turn as a proof of concept for our proposal, leaving a more comprehensive empirical survey to future work.

Roughly speaking, Germanic exhibits a four-stage development of overt expletives: (i) at an initial stage, V1 declaratives are used for clauses lacking a referential topic, and rhematic presentational/existential and weather expletives are absent. (ii) Then optional 'dummy' pronouns are introduced to mark topic-less sentences. These elements are [−referential, −topic], i.e., neither existential nor quasi-argumental, and are merged into the C-system. They become obligatory when V2 is regularized. Symmetric V2 languages (Icelandic and Yiddish) do not develop beyond this point, since expletives in these languages are not specifically *subject*-related; they remain SpecCP-elements (see Richards and Biberauer 2005). (iii) Asymmetric V2 languages with non-V2 (SOV or SVO) embedded clauses (i.e., West Germanic and Mainland Scandinavian) subsequently develop overt [−referential, +argumental] subjects, generalizing the overtness of referential pronouns. That is, the overtness of [+argumental] in SpecvP is extended to [+argumental] elements starting in this position more generally (Richards and Biberauer 2005). Modern German and some Dutch varieties reflect this system. (iv) Finally, languages that develop an English-style EPP requirement (i.e., a canonical subject position associated with SpecTP) subsequently extend this to [−referential, −argumental] expletives, such as existentials (see, e.g., Falk 1993, Richards and Biberauer 2005).

We propose that the successive generalization steps in early Germanic are driven by the interaction between grammatically imposed overtness requirements (on SpecCP in V2 structures and on SpecTP via the subject-specific EPP) and featural specification. In Germanic, subject-specific extension first targeted weather expletives on account of their featural proximity (shared [+argumental] specification) to always-overt referential pronouns. Initial generalization of existential expletives, being [−referential], would not have followed the crucially input-driven generalization expected on the feature-sensitive grammar-acquisition and change model presented here. The difference in the pathway via which overt expletives became established in Germanic and what we see in the acquisition of modern Germanic languages therefore follows.

A similar line of reasoning applies to NIDs with *full* subject clitic paradigms. These systems already possess a complete set of *overt* referential subject clitics specified [+referential,

[2]This perspective raises the question of how much 'overtness' or 'nullness' would be required to ensure the successful transmission of a given (non)null-subject system. This issue is a pertinent one to address, particularly given the varied typology of partial null-subject languages (Holmberg 2010, Biberauer 2018).

+argumental]. Generalization of overtness is thus expected to proceed from referential elements to the featurally closest class, the [+argumental] items, and only later to featurally more distant expletives like existential expletives, which are [−referential, −argumental]. By contrast, this generalization pressure is weaker in NIDs with partial SCL paradigms. In these systems, the initial grammar already contains referential SCLs that may be either overt or null. As a result, no predictable mapping between referentiality and/or argumental specification and phonetic realization is established, making the extension of overtness to weather expletives less developmentally plausible.[3] Albeit tentative, this reasoning offers a rationale for why null weather expletives persist in these NID varieties but not in others. Our proposal thus offers a partial formal elaboration on Pescarini's (2022) observation that gaps in the SCL system are positively correlated with the absence of weather expletives.

Note, crucially, that both early Germanic and NIDs present input to the acquirer which initially *lacks* grammaticalized expletives of any kind. We have proposed that this initial state leaves room for the further extension ('overextension') of overtness to expletive contexts at later diachronic stages, where expletive-like elements can be introduced for different reasons. At the point at which variation arises in a specifically *subject*-oriented domain (here, either because of the introduction of an EPP-requirement, or because the subject-clitic system undergoes reorganization), (semi-)argumental elements are consistently targeted first. This situation contrasts with the acquisition case study in §2, which involves West Germanic learners, all of whom are exposed to a (largely) non-null-subject system with already-overt expletives. We therefore expect *different* extension patterns for earlier Germanic and NIDs, reflecting acquirers' sensitivity to their quite different initial input conditions. Our model thus predicts the non-convergence between diachrony and ontogeny highlighted at the start of this section.

Future work should test whether there are instances of expletive loss in originally fully non-null-subject languages, and whether such diachronic developments mirror the developmental asymmetries reported for West Germanic children. Other areas of research also include the study of expletive development in populations of acquirers where reduced input or language contact is in play, as in heritage contexts or for Germanic-based creoles.

Overall, the logic above has the potential to lead to a unified developmental proposal, offering a more nuanced perspective on the apparent mirror-image patterns observed in diachrony and acquisition: identical underlying learning biases give rise to distinct, language-specific extension patterns as a function of the properties of the input.

5. Conclusions

In this paper, we have defended the view that subject-drop and subject acquisition should not be viewed monolithically, and that the development of subjects is furthermore highly sensitive to initial input conditions.

Our evidence came from acquisitional and diachronic case-studies. On the one hand, data from Germanic children reveals selective expletive drop. This challenges performance-

[3] We set aside what explains the co-existence of other overt expletives with null weather expletives in these varieties (Pescarini 2022); a comprehensive account should ultimately take this variation into consideration.

only accounts, which treat subject types uniformly, and introduces a further requirement on competence accounts: subject drop appears sensitive to finer-grained linguistic distinctions associated with subjecthood than have been recognized to date. We proposed capturing this asymmetry via a categorial differentiation analysis, expanding the featural typology of Rizzi (1986) with the addition of [±topic]. This perspective predicts a correlation between subject production/omission and the nominal categories that children can differentiate at early stages: we proposed that existential subjects may be early-acquired due to their syntactic configuration (featurally associated with [−topic] DPs; viz. Kayne, 2008).

Conversely, the diachrony of subjects in early Germanic reveals a mirror-image pattern: weather expletives are overtly exponed first. We proposed, however, that the divergences observed diachronically can be understood in terms of the same developmental biases that successively structure categorial systems. Through a comparison of the diachronic outcomes of expletive development, we argued for an input-sensitive, extension-based account of subject development. Structures acquired earlier scaffold subsequent system elaboration, with crosslinguistic variation arising from which subject distinctions are already overtly present at the outset. A broader conclusion thus emerges from the developmental and diachronic variation: adequate accounts must avoid overly universalist predictions about subject development. Instead, our proposal advances a generative *and* emergentist perspective, in which the interaction between the learner's initial featural resources and the input determines which subject distinctions are overtly realised first.

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