Session 2B Abstracts

Macro Differences in Dialects

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In current generative terms, individual features trigger small-scale micro and nano-level differences among mutually intelligible varieties with shared geography (cf. Kayne 2000, 2005; Barbiers 2009). However, as we show in this paper, dialects may also exhibit macro-level differences such as in the domain of case alignment. This is unexplained in the literature, which advocates a complete separation of big, structural differences from featural variation (Baker 2008). Our submission is that structural differences also define dialects and registers, though they are mostly restricted to specific domains, unlike those found in typologically distinct languages with typical cascading effects.

For illustration, we use novel case and agreement variation data from Braj, a Western Indo-Aryan language (Snell 1991; Verbeke 2013; Drocco 2016). The perfective construction, in most varieties, has ergative-marked transitive subjects, which fail to trigger verbal agreement. The verb instead either agrees with the unmarked object or manifests default agreement in the presence of an overtly marked object. This is illustrated in (1) from the Paigaon variety. By contrast, the imperfective subject receives a nominative (un-marked) value and agrees with the verb-auxiliary complex, as in (2).

Significant to our discussion here, while the transitive domain is rigid and immune to change, part of the unergative domain shows vital signs of big, case alignment differences, of the kind that could define meso-level (Western Indo-Aryan versus Eastern Indo-Aryan) and macro-level variation (Indo-Aryan versus Dravidian). More precisely, some Braj varieties have undergone a macro-level change by opting for phi-triggering, unmarked/nominative subjects in the perfective. But the change is restricted to the unergative 'laugh'. In our survey of twenty dialects, fifteen Braj dialects exhibit nominative subjects with a perfective 'laugh', as shown in (3) of the Atour Nagla variety. Other unergatives (e.g. 'sneeze') continue with the ergative pattern (4).

- 3. *m /tw/u-Ø/h m s re/ t m s re/we*1sg.nom/2sg.nom/3sg.nom/1pl.nom/2pl.nom/3pl.nom laugh.perf.sg be.past.sg/ laugh.perf.pl 'I/you/he/we/you all/they laughed.'
- 4. *m -ne/t -ne/us-ne/h m s ren-ne/t m s ren-ne/un s ren-ne chik h* 1sg-erg/2sg-erg/3sg-erg/1pl-erg/2pl-erg/3pl-erg sneeze.perf.sg/pl be.past.sg/pl 'I/you/he/we/you all/they sneezed.'

Such case-alignment differences between dialects indicate a deep, structural difference, rather than an individual feature-based difference. Following the conception of ergative as an inherent case (Woolford 2006; Legate 2008, 2012), we assume that all Braj dialects bear a v that assigns an agent theta role to the subject in its specifier, and values it with an inherent ergative, (5).

5. [vP Subj-erg [VP Obj V]]

This v head is present in all transitives and unergatives, resulting in obligatory ergative on the subjects. The predicate 'laugh' in some dialects however undergoes a structural change, as in (6). 6. [TP [vP^{-trans}[VP Subj [Obj V]]]]

We claim that the object of 'laugh' incorporates into the lexical verb, forming an intransitive VP (cf. Hale and Keyser 1993). This prevents the selection of a transitive v that can license a subject. Consequently, the subject generates in the VP (à la Landau's (2010) analysis of psych predicates), and receives a nominative from the higher T head.

Interestingly, the structurally changed domain also houses other feature-based case differences, in the form of person-number based splits in two dialects of Braj. The first feature-based differential case marking is found in the Marehara variety with 1st plural pronouns that resist ergative marking (7), while all other pronouns in the variety remain obligatorily marked. Something similar is also found in the Nithari variety, where 'laugh' forces nominative on all DPs, but the 2nd person singular subject (8).

- 7. **h m-Ø s re**/tum **s b**-ne/un-ne/mɛ-ne/tɛ-ne/b -ne h se/h so
 1pl.nom all /2pl all-erg/3pl-erg/1sg-erg/2sg-erg/3sg-erg laugh.perf.1pl/laugh.perf
 'We/you all/ they/I/you/he laughed.'
- 8. **tu-(ne)**/ mɛ/ wo/ h m s re/t m s re/we h so/h se 2sg-(erg)/1sg.nom/3sg.nom/1pl all.nom/2pl all.nom/3pl.nom laugh.perf.sg/laugh.perf.pl 'You/I/he/we/you all/they laughed.'

We contend that Marehara and Nithari have just initiated N-V incorporation with 'laugh', creating a divide between 1st/2nd and 3rd pronouns/NPs. The former need licensing in a functional head beyond the lexical VP; they are therefore obligatorily licensed at a nominative valuing T head. On the other hand, 3rd NPs continue to be licensed within VP, receiving an ergative case. The general prediction is that if the structural condition for 'laugh' continues, these two dialects will follow in the footsteps of Atour Nagla, and discard the ergative for all perfective subjects.

A different type of variation is evident in Mainpuri registers. The first register has a perfective structure without an auxiliary (9), hosting an ergative subject. The second (more formal) register has an unmarked nominative subject, with accompanying phi-agreement on the v-T complex (10).

- 9. *m* -*ne/tum-ne/us-ne* bil-le *m r* 1sg-erg/2sg-erg/3sg-erg Bill-acc hit.perf 'I/you/(s)he hit Bill.'
- 10. $m \emptyset/tu \emptyset/w h \emptyset$ bil-k m re $/\varepsilon/\varepsilon$ 1sg-nom/2sg-nom/3sg-nom Bill-acc hit.imperf be.pres.1sg/2sg/3sg 'I/you/(s)he hit(s) Bill.'

We infer from this that speakers of this region have two grammars, one hosting a v (transitive) head and the other hosting an active T head. This duality is another piece of a macro-difference between dialects and registers. In the end, we also show how these structural innovations do not affect other grammatical domains in Braj, with the result that it continues to elude the meso-level properties (e.g. numeral classifier, DP-level honorification, gender underspecification) defining Eastern Indo-Aryan languages.

Selected references: Sjef. Barbiers. 2009. Locus and limits of svntactic microvariation. Lingua 119(11), 1607-1623; Hale, Ken & Samuel Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In Hale, K., Keyser, S. J. (eds.), The View from Building 20, 53-108. Cambridge, MA: MIT Press; Kayne, Richard. 2000. Parameters and Universals. New York: Oxford University Press; Legate, Julie. 2008. Morphological and abstract case. Linguistic Inquiry 39(1), 55-101; Snell, Rupert. 1991. The Hindi Classical Reader. Psychology Press. Tradition: A Braj Bh

Holistic approaches to syntactic variation: *Wh-all* questions in English Mary Robinson and Daniel Duncan, New York University mkr361@nyu.edu dad463@nyu.edu

Introduction: In Standard English, a *wh*-question is ambiguous as to whether it demands a singleton or plural answer (1). Some dialects, like West Ulster English (McCloskey 2000), resolve this ambiguity by using *all* to mark a question as requiring a plural answer (2).

1. **Who** did you see at the party? 2. **Who all** did you see at the party?

"Who are all the people that you saw at the party?"

McCloskey (2000) observes that sentences as in (2) are only acceptable with *who/what/where* as the *wh*-word, but not *when/why/how*. The *wh*-word and *all* may be separated, as in (3).

- 3. What did you get all for Christmas?
- "What are all of the things that you got for Christmas?"

This paper explores the largely undescribed use of such *wh-all questions* as in (2) in American English (AmE). Such use is said to be a dialect feature of the Midlands (Murray and Simon 2006), but there is little data in support of this claim. In this study, we combine corpus-based and experimental approaches to show that *wh-all* questions are widespread in AmE, yet subject to regional variation, and that their use is restricted to informal registers.

Approaches to Syntactic Variation: Working with any sort of syntactic variable is difficult from a methodological standpoint in that tokens of the relevant construction may be rare. One method of overcoming this difficulty is to use large corpora such as the Corpus of Contemporary American English (COCA) and others (Davies 2008-). These corpora can give the contexts in which speakers use one variant or another, and can lead to insights about extra-linguistic factors that favor one variant. When the variable is restricted to colloquial speech or subject to regional variation, however, there may not be enough tokens for an analysis. One solution to this problem is to use Twitter as a large corpus, as tweets are generally written in an informal style similar to colloquial speech. Twitter has the advantage that it can capture language changes as they happen, and can be used to track variation among minority groups (as in Jones 2015). Although data from corpora and Twitter may be used to study some of the internal and external language factors that condition the use of one variant over another, they still give an incomplete picture of a speaker's grammar. Knowing what is allowed in a speaker's grammar is important for syntactic variation research, because it is impossible to tell what variants are preferred if we do not know which variants the speaker controls. One way to access a speaker's grammar is through experimental techniques like acceptability judgment tasks, as in Wood et al. (2015), but this technique does not always reveal extra-linguistic conditioning factors on the variable. We contend that, since a holistic approach which combines these methods will yield a more complete picture of a syntactic variable, future studies should implement at least two of the methods used here. **Methods**: A three-pronged approach was used to investigate wh-all in AmE. First, a search was performed on COCA to look for wh-all tokens, which were then coded by genre. Next, over 10 million tweets were collected from Twitter's streaming API. Tweets were searched to find those that contained the string wh-word + all + AUX, and hand-checked to determine which were whall tokens. Finally, an acceptability judgment experiment was conducted on Amazon Mechanical Turk (MTurk). Participants (n=568) who grew up (ages 4-14) in the United States and were native speakers of AmE answered a 47-question grammaticality survey, in which they rated different questions along a 7-point Likert scale. To test language-internal factors of wh-word and position of all, test sentences were created based on the frame in (4).

4. What (all) did he (all) buy at the store (all)?

Each *wh*-word was inserted into the frame with *all* in one of the three positions to create the target questions. The remaining questions in the survey were a mixture of grammatical and ungrammatical fillers. Participants' demographic information was collected upon completion of the survey.

Results: Relatively few (n=229) tokens were found in COCA. Among the tokens, *wh-all* questions were limited to *who/what/where*. The vast majority (89.5%) of tokens were found in the spoken and fiction registers, suggesting that *wh-all* questions are found more often in informal speech. As expected, therefore, the Twitter search found similar results: of 1292 tokens, all had *who/what/where* as the *wh-*word. The responses to the MTurk survey were normalized to z-scores and modeled using linear mixed effects regression, in which participant was a random effect. The language-internal factors of position of *all* and *wh-*word, and language-external factor of region (where speakers grew up, coded based on dialects described in Labov et al. 2006) were fixed effects with a significant effect on grammaticality rating (p < 0.05 for all discussed results). Participants preferred *all* to be next to the *wh-*word, as in (2), and disfavored *when, how* and *why* as *wh-*words. Post-hoc tests showed a hierarchy of preference for *wh-*words: *who > what > where > when/why/how* (p < 0.05). While most regions rated *wh-all* questions as grammatical, participants from the Northeast United States (coded as New York City, Western New England, and Eastern New England) rated them poorly.

Discussion: The MTurk study found evidence for two grammars: one which permits wh-all questions and one which does not. The majority of AmE speakers have the former grammar. This differs from the dialect described in McCloskey (2000), as many AmE speakers require all to be adjacent to the wh-word to be acceptable. This grammar's overall hierarchy in which whwords are preferred suggests that the semantics of the different wh-words act as a constraint on grammaticality. The latter grammar, which disallows wh-all questions, appears to be limited to the Northeast United States. That when/how/why were dispreferred does not mean they are ungrammatical for all speakers: there were 19 participants who accepted at least two of the supposedly ungrammatical when-all, why-all, and how-all. These participants are found in the Inland North, Inland South, and Texas South regions at disproportionately high rates. We speculate that there may be linguistic innovators in these regions who are extending wh-all to mark any wh-question as plural. Thus, while results from the corpus search and analysis of Twitter data showed that who-all, what-all, and where-all are occasionally used in colloquial speech, the acceptability judgment experiment provided more revealing results, including the effect of position of all on grammaticality. At the same time, the MTurk study did not find language-external factors outside of region to condition the feature. The corpus study and Twitter data, by contrast, show that the use of wh-all questions is subject to register-based variation. As such, these results show that when examining previously understudied syntactic variation, the most effective approach is to combine corpus analysis with experiments to show who can use the variant and how they use it.

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Retroproductive case and frequency effects

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Assuming a theory where case can be predicted and is inherently associated with theta roles (Woolford 2006), changes in case marking have to be accounted for in the context of acquisition of verb meaning. It is well-established that learning a verb is dependent on its semantic argument structure as well as its syntactic structure, with the syntactic bootstrapping literature offering evidence for the prominent role of argument structure patterns crosslinguistically (Lidz, Gleitman and Gleitman 2002). Despite this, the relationship between casemarking variation and the acquisition of verbs remains largely unexplored. In languages like **Icelandic**, where oblique (non-nominative) subjects exist and only occur as non-agents, the nature of this relationship is crucial to the analysis of variation.

We present results from a large-scale online survey (N = 4545) and an in-depth follow-up study (N = 57) showing previously unattested variation patterns in the case marking of theme subjects in Icelandic. On previous accounts (Jónsson 2003, Yang 2016), quirky oblique theme subjects were thought to obligatorily pattern with structural nominative case instead of inherent dative case. Contrary to this, we show that instances of datives are indeed attested, and that even though dative subjects do not seem to be productive with new verbs in Modern Icelandic, they are what we call *retroproductive* when non-agent subjects appear with varying case in the input.

Values: *Dative Substitution* (DS), where originally accusative experiencers are substituted with dative, is the best-known example of subject case marking variation in Icelandic. Still, the variation also extends to the less discussed *Nominative Substitution* (NS) of theme subjects. NS comprises a change from an oblique subject case (accusative or dative) of intransitive verbs of motion or change of state, i.e. theme verbs, to nominative (Jónsson and Eythórsson, 2005:225), see (1):

(1) Bátinn rak á land → Báturinn rak á land the.boat.ACC drifted to shore → the.boat.NOM drifted to shore - 'The boat drifted to the shore'

Therefore, just as DS, NS can be viewed as an example of overgeneralization/leveling where productive, unmarked patterns are generalized at the expense of less productive, lexically specific and more marked patterns. Previous ideas (e.g. Jónsson 2003, Jónsson and Eythórsson 2005) about changes in subject case marking in Icelandic are summarized in (2):

Nominative Substitution (themes)
 Lexical ACC/DAT (quirky) case → Structural case. Dative is not productive.
 Dative Substitution (experiencers)
 Lexical ACC (quirky) case → Inherent case. Dative is productive.

Although the subjects of theme verbs, just like the subjects of experiencer verbs, are originally both accusative and dative, it has been noted (and successfully predicted by the application of the Tolerance Principle in Yang 2016) that dative theme subjects fail to attract the accusative in the same way that dative experiencer subjects do. In fact, it has been maintained that such patterns are impossible, since the dative fails to acquire the status of inherent case with theme verbs (Jónsson 2003, Jónsson and Eythórsson 2005). The results of our study suggest otherwise.

Results and discussion: In an online forced-choice survey on adults (N = 4545) which tested four different NS verbs, various unexpected patterns emerged. The general results show an increase in the rate of NS compared to previous results (Jónsson and Eythórsson 2005) and confirm the fact that dative theme verbs preserve their original oblique case better than dative experiencer verbs. Surprisingly, however, significant rates of dative subjects also appear with

theme verbs, a pattern which was thought impossible. Figure 1 shows our results for an originally accusative theme verb, *daga uppi* ('die out/perish'). NS has almost entirely taken over but as can be seen the dative scores are higher than the original accusative ones. The youngest age groups show the most variation in case marking, as the dative consistently gets a higher score than the original accusative case for subjects younger than 25 years old.

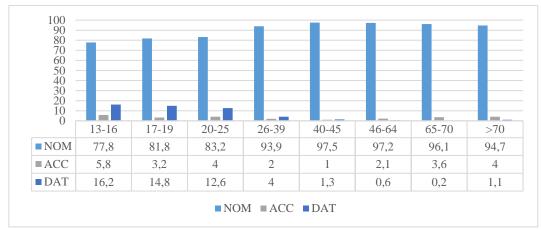


Figure 1. Results (frequency of selected case) for daga uppi ('die out/perish') by age, online survey (N = 4545).

Why do these patterns emerge? Have younger speakers deviated from the ongoing direction of the change or do the results reflect emerging case patterns when speakers are faced with unknown verbs? Furthermore, what knowledge do speakers rely on when determining the casemarking of low-frequency verbs? Are subjects which have transparent theme characteristics (– animate, –agent) pulled towards the nominative rather than subjects which are more likely to be experiencers (+animate, –agent) and therefore dative?

To explore this, a follow-up study was administered to 57 students in 6th grade of elementary school (11-12 years old). In this experiment, participants were forced to choose the subject case of 24 theme and experiencer verbs which originally take either nominative, accusative or dative case. Two frequency groups were used for each of the conditions, with a dichotomy between the most and least frequent oblique subject case verbs in Modern Icelandic. Following the forced-choice task, participants were asked to select the verbs they previously knew, evaluating all the verbs of the forced-choice task as well as 22 additional theme verbs with an original oblique subject. We hypothesize that when encountering non-agent verbs, 11-12-year-old speakers rely on morphosyntactic and semantic bootstrapping mechanisms to choose between case-frames, possibly generalizing non-productive and unexpected case patterns.

Our results suggest that this is the case. Better known verbs are more likely to preserve an original oblique subject, with an increased preservation rate for the dative. The DS documented in the larger study (N = 4545) was confirmed, appearing with themes as well as experiencers. In general, the patterns are much less clear than previous research, with NS and even *Accusative Substitution* appearing with themes and experiencers. Experiencers still are more biased towards the dative, consistent with an account which assumes probabilistic rules based on type frequency (Yang 2016).

Jónsson, 2003. Not so Quirky: On Subject Case in Icelandic. *New perspectives on case and Case Theory*, 127-163. **Jónsson and Eythórsson**, 2005. Variation in subject case marking in Insular Scandinavian. *Nordic Journal of Linguistics* 28 (2):223-245. **Lidz, Gleitman and Gleitman**, 2003. Understanding how input matters: verb learning and the footprint of universal grammar. *Cognition* 87 (3):151-78. **Woolford**, 2006. Lexical Case, Inherent Case, and Argument Structure. *Linguistic Inquiry* 37 (1), 111-130. **Yang**, 2016. *The Price of Linguistic Productivity. How Children learn to break the Rules of Language*.

Grammars compete late: Evidence from embedded passives Daniel Duncan, New York University dad463@nyu.edu

Introduction: One of the biggest problems for variationist approaches to syntactic variation is the question of where such variation occurs in the grammar, and what type of variation is allowed. Kroch (1994) suggests that syntactic variables are a result of Competing Grammars, in which grammars that derive differing surface outputs are in competition and selected by the speaker. In this paper, I observe an implicit prediction of the Competing Grammars viewpoint as typically described: material above the variable cannot condition variation. I test this prediction in a variationist study of embedded passives (the 'needs washed' construction) in Pittsburghese, and will show that material above the variable does condition variation. This finding suggests that a look-ahead problem arises if a grammar in competition is selected prior to derivation of the variable. To solve this, I propose that both grammars are available during the derivation, and that the derivation transferred to LF and PF is chosen probabilistically in Spell-Out. Grammars still compete; however, the competition selects a variant later than previously thought.

The Prediction: From the Competing Grammars viewpoint, a single derivation yields a single output. Variation thus arises not within the grammar, but from variation in the selection of a grammar that derives a particular variant. For example, variable production of do-support in Early Modern English would be due to variation in the selection of a grammar in which *do* is Merged into T versus a grammar in which V raises to T (Kroch 1994). In order to select variants in this manner, there must be some decision point before the derivation of the variable at which a grammar is selected (Wallenberg 2013). This decision point would come at latest immediately before the variable is derived. If we assume a bottom-up Minimalist syntax, this means that operations that apply subsequent to the derivation of the variable are not visible to the derivation because they have not been derived yet. As such, this approach to syntactic variation carries an implicit prediction: subsequent operations to derivation of the variable, and therefore material Merged above the variable, cannot condition variation. In other words, we do not expect the rate of a variant's occurrence to depend on material above it.

The Variable: Variation in the surface forms of the embedded passive (1) between the standard construction (EP) and one which omits *to be* (AEP) is found throughout the Midwest United States (Murray et al.1996), and is particularly associated with Pittsburghese (Tenny 1998). These variants have the same meaning, and are subject to intraspeaker variation, as in (2).

- 1. The car **needs** (to be) washed.
- 2. I also think Lambo **needs swapped** with Lombardozzi, who then **needs to be given** spots starts here and there to spell people. (online example)

Edelstein (2014) shows that the EP and AEP are syntactically different. For example, unlike in the EP, the AEP disallows adjectival passives (3) and *not* may not appear between *need* and the participle (4). Based on these and other diagnostics, Edelstein suggests that unlike in the biclausal EP, the matrix verb directly selects for an Aspect Phrase in the AEP.

- 3. a. The door **needs to be open**.
- 4. a. That car **needs to not be washed**.

b. *The door **needs open**.

b. *That car needs not washed.

Following Edelstein's analysis, embedded passives represent the type of syntactic variable that can test the above prediction: material above the decision point of Merging *be* or *need* (modals, negation, etc.) should not condition variation.

Methods: This prediction was tested with variationist methods by using a corpus of examples drawn from fan forums for Pittsburgh sports teams. Because fandom for American sports teams is highly regional (Facebook 2015), fan forums are a useful place to approximate regional variation and maximize the number of AEP tokens obtained online. Two forums for Pittsburgh Pirates (baseball) and Pittsburgh Penguins (ice hockey) fans were manually searched for the terms *need*, *needing*, *needed*, *needs* on February 2-4, 2017, yielding 17,504 hits. Of these, 534 tokens of embedded passives were found. Tokens were coded for four language-internal factors representing material above the variable: MODALS (present vs. absent), NEGATION (present vs. absent), SENTENCE TYPE (interrogative vs. declarative), and CLAUSE TYPE (variable is in a matrix, complement, adjunct, conjunct, or relative clause). Chi square tests were used to determine significant effects of the language-internal factors.

Results: Even in such a targeted corpus, the standard EP was the overwhelmingly favored variant, occurring more than 80% of the time. Overall, 100 of the 534 tokens (18.73%) were of the AEP. As predicted, this rate was not significantly different when the passive was preceded by a modal (21.43%) or occurred in an interrogative context (16.67%). Although there was no significant difference in the rate of AEP occurrence when negation was present, this may be due to low token counts (10.87%). There was a significant difference of clause type. While there was no difference between matrix, complement, adjunct, and conjunct clauses, the AEP is significantly more common in relative clauses compared to these other contexts (27.17%, p=0.0275).

Discussion: That any factor has a significant effect on variation suggests that material above the variable can condition variation. If the decision point for selecting a grammar is at or before the first operation that yields the variants, such results should not be possible, as they pose a lookahead problem. This type of problem is often solved with an appeal to post-syntactic operations, as in Waters' (2013) study of English adverb placement. Because our variants here differ structurally beyond simply differing in word order or morpheme realization, this is not a viable solution. I suggest instead that the decision point is later in the derivation than previously thought. Rather than occur prior to building the variable, the decision point comes after. Functionally, this means that both the EP and AEP derivations are available to the speaker at Spell-Out, where I propose that one variant is selected probabilistically. In this way, only one derivation is transferred to LF and PF, but the full derivation is available to condition variation. This proposal fits the data and represents a way toward reconciling probabilistic and Competing Grammars-style approaches to morphosyntactic variation, which are theoretically quite different yet surface-identical (see Embick 2008).

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