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Number Variation in Jamaican Patwa

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ABSTRACT

This paper analyzes variation in the marking of number on plural nouns in mesolectal Jamaican Patwa (JP) – one of only three variable features for which comparable quantitative data exist from Creole and African American English speech communities. Earlier theoretical claims for grammatical and functional principles to constrain variation in JP, and English-related Creoles generally, are tested and found wanting. Many previous empirical studies lacked a valid, sufficiently nuanced taxonomy of surface forms which can reliably map onto the level of reference, and permit reorganization at a more abstract level capable of allowing generalizations. This analysis considers the choice between plural *-z* and zero in regular nouns in light of the major known potential linguistic constraints – syntactic, semantic, pragmatic and phonological. Results are compared with other contemporary Creoles, African American Vernacular English (AAVE), and African American Diaspora varieties. Two corpora are first analysed separately, then combined to form the largest database yet studied for number-marking in any single Creole, African American Diaspora, or African American Vernacular English-speaking community. Conclusions do not match the ‘Creole pattern’ put forth in the literature and used as a basis for historical conclusions concerning AAVE and Creole genesis.

Variation in marking number¹

Number is variably marked on nouns in the Jamaican creole continuum in two main ways. One is transparently derived from English: plural marking with suffix *-z* (including the usual allomorphic variation) on regular nouns (1). The other is a creolised form, the post-NP marker *-dem* (2), which is probably historically derived from the caseless and genderless third-person plural pronoun *dem* ‘they’. A similar form appears in other Atlantic English-lexified Creoles (AtEC), e.g. *den* in Krio (Yillah & Corcoran 2007) and Ndyuka (Huttar 2007), and is widely accepted as being calqued on African substrate patterns. Derivation from a 3pl pronoun is also common in Creoles of other lexical bases and regions, such as Angolar (Lorenzino 2007), Haitian Kreyòl (Degraff 2007), Negerhollands (de Kleine 2007), Papiamentu (Dijkhoff 1983) and even Tok Pisin (Faraclas 2007), where it reflects Melanesian substrate patterns.

- (1) *Bot di gorkz went 'u veri gud skuul-ø, they had a skuul* (Rose)
“Both the girls went to very good schools, they had a school...”
- (2) *Di people-dem dead out and lef two lickle people inna di yard.* (Bess)
“The people died and left two little people in the yard.”
- (3) *Some a di helper-s-dem in our area don't stop pon premises* (Yvonne)
“Some of the domestic workers in our area don’t live on premises”
- (4) *sweep up di yard, wash di plate-ø ... carry four pan-ø of water* (Betty)
“...sweep the yard, wash the plates... carry four pans of water”

In mesolectal Jamaican Patwa (JP), the two forms may co-occur for a single plural NP (3), though it is infrequent. Unlike most English dialects, neither form appears categorically in JP: that is, referentially-plural nouns often are not marked by either *-z* or *-dem* (4).

Compared to AtECs, even English dialects in which variation occurs show a relatively high amount of marking, and may be characterized as having robust number-marking – e.g. in contemporary African American Vernacular English (AAVE) corpora, plural nouns are marked from around 88% to 98% of the time. AtECs in contrast often show much lower rates of marking – in the present study,

individuals vary between 20% to 91%, with a mean of 50%, where *-z* is concerned. Marking number with *-dem* is even less frequent: most of the mesolectal AtECs studied have been reported to show marking rates of only 1% to 12% for *-dem* (proper definition of the envelope of variation is an issue addressed below).

Table 1 gives a sample of marking rates in several Atlantic Creoles: mean rates for groups vary from 28% to 59%, but individual figures for Guyanese Creole accurately instantiate a wider range of variation across the Creole continuum, though totals here are small. Categorical performance is rare: all speakers studied to date in the variation literature on number-marking in AtECs show some use of either *-z*, *-dem* or both; while even high-status speakers of Standard Jamaican English show occasional use of *-dem*, alongside a little unmarking of plural nouns (at a mean rate of 2% in the ICE-JA corpus, where $n = c.1,400$; Deuber *fc* in JPCL).

Table 1: Number-marking rates in several Atlantic English Creole varieties

	Guyanese Creole				Gullah	Vernacular Liberian English ²	Nigerian Pidgin English
<i>-z</i>	8%	26%	74%	c.43%	24%	28%	59%
<i>-dem</i>	0	1/16	0	4%	1/128	12%	1.1%
Sample	25	16	19	260	128	2,039	1,316
Speakers	Anna	Granny	Mother	Cane Walk	Mrs Queen		

Sources: Rickford (1987:160 Granny, 233 Anna, 253 Mother); Rickford (1986a:47-8); Singler (1991, Table 36.2; 2007); Poplack & Tagliamonte (2000:90); Rickford (2006, recalculation).

Dimensions of variation

Due to the relative paucity of plural-marking in AtECs compared to English dialects, and the occurrence of forms distinct from superstrate plural morphology, creolists have long speculated on possible explanations for the linguistic distributions found.

Earlier linguists suggested that variation was due merely to hypercorrection or incomplete acquisition: Wilson describes use of *-s* in Guinea-Bissau Kriyol as being modelled on Portuguese plural-marking, but characterizes it as “frequent and indiscriminate use of *-s*, with singular and plural forms being confused” (Wilson 1962:12-13, cited in Holm 1988; but see Kihm 1994, Baptista et al. 2007). An alternative notion has been the functionalist non-redundancy idea, also widely applied to past-marking in Creoles, that the indication of such linguistic distinctions as number (or tense) is a matter of choice, only provided where required for listeners’ comprehension: “Plural marking is only used for emphasis or where contextually necessary” (Sebba 1997:145, of Mauritian). This idea, common in creolist literature, suggests that in the absence of categorical marking requirements in a language’s grammar, the primary constraint on variability is the speaker’s ability to consciously monitor the discourse and facilitate the listener’s task.

The idea behind this account is that Creoles derive from pidgins which do not overtly express number but rely on context and shared knowledge; superstrate plural morphology is entirely lost in creolization, and is gradually replaced via grammaticalization of more robust forms such as *-dem*, as the languages develop from a “pragmatic mode” towards a more “syntactic mode” (Givon 1979). Presumably the need to be understood drives the sporadic use of number-marking, which is thus far less frequent than in redundant, invariant systems like AtECs’ lexifier languages: “Restructuring ...involves, not plural redundancy, but *grammatical specification of plurality in the noun itself* for greater discourse clarity” (James 2001:20, original emphasis).

This line of thinking has led to a number of broadly similar formulations. Bickerton (1975), Alleyne (1980), Dijkhoff (1983), Mufwene (1986) and others link plural marking with emergent Creole forms (e.g. *-dem*) to a noun’s referential or existential status in terms of definiteness, specificity, presupposition, individuation, or genericity, such that some classes of nouns must necessarily be unmarked, others typically marked, and others only marked when number is not expressed elsewhere in the clause. These accounts of an essentialized basilect generally ignore the fact that marking with *-z* occurs for the same speakers, or treat it as a momentary incursion of ‘standard’ English with no consequences for the Creole grammar – despite evidence that *-z* is more frequent, regularly occurs within a Creole syntactic frame, and appears in at least the JP historical record far earlier. To date, no-one has empirically

investigated whether *-z* and *-dem* marking operate upon the same grammatical principles, though it has been assumed by most that they do.³

These approaches are all essentially categorical: the underlying meaning intended by a speaker is seen as fully determining the surface form. As such, they are problematic for empirical modelling of Creole corpora in several ways. An obvious difficulty is the inaccessibility of speakers' intentions: researchers cannot always know precisely what speakers intended, or afford to confine their data to the small minority of utterances that are both explicit and unequivocal.

More profoundly, the direction of reasoning in theorizing is from distinct semantic categories to unambiguous syntactic forms, but in coding and quantifying (and indeed, in interpreting everyday speech) it is the reverse: one inevitably discovers that the prototypical examples of clear-cut referential categories hardly comprise the full spectrum of subtle and overlapping shades of form and meaning which Creole speakers routinely express in everyday speech, and from which we begin the work of interpreting, classifying and quantification in search of patterns. What is required is a valid, sufficiently nuanced taxonomy of surface forms which can be reliably mapped onto the level of reference; and, further, which permits reorganization at a more abstract level capable of allowing generalization.

Thus all the theoretical, descriptive (and sometimes nearly prescriptive) proposals referred to have been taken as starting points for empirical testing in variationist work. Rickford (1986a, 1990, 2006), Singler (1988, 1989, 1991, 2007), Poplack and Tagliamonte (1992; 2000, with Eze) and others have refined and operationalized their schemas. It is not only the syntactic constituency and organization of nominal expressions, or their referential status, which have been considered responsible for the way they pattern with respect to number-marking, but also their semantic and historical status, morphological category, local phonological context, and pragmatic factors such as the occurrence of indications of number elsewhere in the clause. Other possible explanatory variables such as lexical frequency have only been hinted at to date, while the effect of linguistic parallelism (the tendency for similar variants to cluster together across a stretch of discourse, Scherre 2001) has yet to be investigated for this variable feature.

The factors which constrain variable number-marking in AtECs, on the one hand, and on the other AAVE as well as African American Diaspora varieties in the Americas and West Africa, have been investigated as a way to confirm or refute

shared historical origins between the two groups. Generalized ‘Creole patterns’ have been postulated and compared to those of the enclave/Diaspora varieties, which offer alternative data for reconstructing what early African American speech might have been like. Number marking, it has been suggested, is one of only three variable features for which comparable quantitative data exist from pidgin and creole communities (Rickford 2006:103; the others are copula absence and past-tense marking).

For creolists, number variation offers an opportunity to examine the nature and extent of variability in Creole grammars (Patrick *fc*); to evaluate whether the semantic space is carved up differently for alternative features from competing systems – indeed, whether distinct grammars do compete synchronically within Creole continua; and to better understand the outcome of the historical processes of competition and reorganization during creolization, and the changing role of inherent variation in Creole genesis and development.

Below I describe the database, outline the methods used and define the envelope of variation. The analysis considers the choice between plural *-z* and zero in regular nouns, with the co-occurrence of *-dem* as a potential constraint. The discussion compares results with other contemporary varieties, and reflects on the significance of number variation for the organization of Creole grammars and speech communities.

Among the important questions to address are these:

- Under what conditions do various patterns of number marking occur in JP?
- Which linguistic constraints govern and predict variation in number-marking?
- Are distinct number-markers truly alternative, and in competition?
- Does the picture that emerges from the analysis match the ‘Creole pattern’ that has been put forth in the literature, and used as a basis for historical conclusions by non-creolists?
- What degree of resemblance do the constraint patterns of JP show to other AtECs, AAVE and African American Diaspora varieties?
- Are constraints organized in such a way as to ease burdens on speakers and hearers (functional), or alternatively, do they reflect a drift towards increasing agreement and reducing variation within the grammar (counter-functional?)
- Is one grammar sufficient to describe number-marking in the JP speech community?

The data

The descriptive purpose is to investigate the patterning of JP number-marking in light of the major known linguistic constraints – syntactic, semantic, pragmatic and phonological.

Social variability, as far as is known, appears to resemble other variable features in Creole continua generally and Jamaica specifically. That is, the Creole form *-dem* is used more by speakers who are older, rural, less educated, or lower in socioeconomic status; while the form derived from English *-z* is used less by such speakers, and zero forms are widely used across the continuum. It is obvious that these aspects of social identity are not mutually independent, nor are they determinative of speech choices, while it is entirely likely that the various forms are eligible for use in agentive displays of identity, in context-creating and -invoking ways. This is of course not at odds with the fact that, used repeatedly across a suitable corpus, they can be expected to reflect social position accurately for a majority of speech community members.

This paper does not attempt to perform the detailed analysis of social factors that is required in order to examine and test such hypotheses, nor is it based on the sort of sample that would be required. Instead, its goal requires fully sampling the mesolectal distribution of number-marking, approaching on one side the acrolect and on the other the basilect. (For present purposes, the acrolect may be described as speech showing few distinctively creolized JP surface features of syntax or morphology, which can be largely identified as a local variety of Western Caribbean English; the basilect may be described as speech which shows few to no instances of surface features of English-like inflection, and a relatively high frequency of forms identifiable as African-derived or locally-developed in the process of creolization.) What is needed is a corpus large enough to throw up examples of rarely-occurring features or constructions, from speakers who collectively range widely and fairly evenly across the mesolect.

To sample this range, I have constructed two corpora which are analyzed separately and then together. The first draws on sociolinguistic interviews I conducted in 1989-90 with 8 residents of ‘Veeton’, a mixed-class district of Kingston, the capital city of Jamaica (Patrick 1999 describes the sociolinguistic setting in detail, and examines all these speakers for a range of other linguistic

variables). Four were young people aged 14 to 18 at the time of recording; four were older people aged 49 to 82. Each subgroup contained two males and two females, who varied considerably in social status. The young people were all primarily urban in experience and orientation, while two of the older people had primarily rural orientations, though urban experience as well. The Veeton corpus contains 1,167 tokens of plural-reference regular nouns, for a mean of 145 per speaker; all speakers but one contributed over 100 tokens. The marking rate in the entire Veeton sample was 59% *-z*, and only 50 tokens (4.3% of the sample) were marked with *-dem*.

Table 2: Characteristics of the two samples

	Sex		Age				Number of tokens		mean N	Rate of Marking		Min/Max
	<i>F</i>	<i>M</i>	14-20	21-45	46-60	61-90	<i>Reg</i>	<i>Irreg</i>	<i>Per spkr</i>	<i>-z</i>	<i>-dem</i>	<i>-z</i>
Veeton	4	4	4	-	1	3	1,167	-	145	59%	4.3%	21-91%
Sistren	12	-	-	12	-	-	1,554	654	130 reg	43%	7.9%	22-85%
Joint	16	4	4	13	3	-	2,721	654	-	50%	6.3%	-

The second corpus is drawn from 12 members of Sistren, a feminist theatre and textiles collective in Kingston who published a volume of powerful oral histories and life-stories for general readers. The data were tape-recorded c. 1980 in small groups of two or three intimate friends, and then transcribed and edited by the members themselves, with some advice from creolists Beverly Hall and Mervyn Alleyne (Sistren & Ford-Smith 1986:14-17 describes the process). The speech represented varies widely along the continuum but represents JP faithfully and vividly. Three of the fifteen published accounts were not used as data because they were written documents, or were by middle-class women, or both.

The women were typically working-class and rural-born but with many years of adult life spent in the city. Their exact ages are not given but all were adults, older than the young Veeton group, while none of them were as old as the oldest speakers

in the other Veeton group. The Sistren corpus comprises 2,208 plural-reference tokens, with 1,554 regular and 654 irregular nouns, for a mean of 130 regular and 55 irregular per speaker; all speakers but two contributed over 100 regular tokens. On regular nouns, the average marking rate in the Sistren sample for *-z* was 43%, while the 122 tokens of *-dem* made up 7.9% of the sample.

Table 3: Comparison of marking plural and past-tense, four Veeton speakers

	Plural marking	No. of tokens	Past marking	No. of tokens	Speaker characteristics
Roxy	91%	35	89%	54	Female, 14, UMC
Rose	88%	201	59%	184	Female, 82, LMC
Bigga	50%	100	12%	110	Male, 17, LWC
Mina	21%	160	7%	152	Female, 75, LWC

The range of marking rates in both samples is quite similar, and spans the continuum from roughly 20% to 90% *-z* marking. This feature is evidently more accessible to JP speakers than past tense inflection, since even those who use *-z* least to mark plural show frequencies 3 times higher than those who inflect past-reference verbs the least. Table 3 compares frequencies for the two variables, for four Veeton speakers (cf Patrick 1999:235, Table 7.3); Roxy and Mina, respectively, show the highest and lowest inflection rates of either sample, for both variables. Together the two corpora make up the largest database yet studied for number-marking in any single variety of a Creole or African American Diaspora variety. Whether they should be studied together is an empirical question, answered below in the affirmative.

The nature of the data, like all samples, contain some biases. Consider the Sistren life-stories. They are, not surprisingly, a rich source of irregular nouns referring to humans, of which the most frequent are *people*, *man/men*, *pickney*, *woman/women*, *children*. As they recount personal rural experiences, nouns referring to crops and plants appear twice as often as in the urban interviews. Possessive determiners occur

more often too (15%, compared to 9% in Veeton), perhaps due to the importance of deixis in first-person narrative. Being based on recordings transcribed by non-linguists, they are somewhat less reliable for phonological context. A greater degree of rural background, and a generally lesser degree of formal education, may also account for both the lower usage of *-z* and higher usage of *-dem* than the Veeton data.

On the whole, such contrasts between data sources seem unlikely to affect grammatical constraints significantly, especially when they are examined with multivariate analysis (Goldvarb X was used; Sankoff et al 2005).

The constraints: Nominal reference and NP type

Reviewing nominal reference as a constraint, Poplack et al. (2000: 75) note that Dijkhoff's (1983) proposal for Papiamentu generalizes Bickerton's (1975:137) observations about Guyanese, dividing nouns into those that are existentially hypothesized (often later interpreted as equivalent to generic), existentially presupposed (generally equated with definite), or existentially asserted. The first class is expected to be unmarked, the second marked, and the third only marked where no other indication of plurality exists within the clause. Bickerton's comments take in both *-z* and *-dem* marking, but Dijkhoff's are intended to explain only the creolized Papiamentu marker *-nan* (which, like *-dem*, is equivalent to the 3pl pronoun).

Rickford (1986a) examined this system for a very small Gullah corpus and found it inapplicable; his corpus consisted of variation between *-z* and zero, with a single token of *-dem*. Poplack et al. (2000) also test this arrangement for AAE Diaspora varieties and Nigerian Pidgin English, in both cases looking only at *-z* variation (*-dem* does not occur in their corpora), under the assumption – questioned below – that Creole heritage for AAE means that supposedly basilectal Creole constraints should also govern variation with *-z* (2000:82). Their finding is also negative, which they interpret as supporting their general conclusion that AAE does not demonstrate a profile typical of Creole ancestry (but see Rickford's 2006 critique of methods and conclusions, including the analysis of plurals).

Poplack et al. also point out that in multivariate analysis, any explanatory variable comprising features of nominal reference is bound to interact with one comprised of syntactic configuration (which I refer to as NP- or determiner-type). This is because, although English syntax and semantics of nominal structure and reference are neither transparent nor isomorphic, they are strongly correlated: most definite nouns are

preceded by definite articles, etc. Indeed, Poplack et al. explicitly used determiner-type as a cue in order to code for semantic reference (2000:81), effectively building interaction into their analysis. Elsewhere they recognized the difficulty, e.g. remarking of collectivization (which might just as well be said of Mufwene's individuation) that it is "inaccessible to the linguist... The sole criterion remaining is whether the speaker viewed the referent as denumerable, a datum which cannot be recovered. Invoking it as the explanation for uninflected plural... is entirely circular" (Tagliamonte & Poplack 1994:253).

Mufwene (1986) developed an analysis of nominal reference in terms of individuation – again, a semantically-defined concept which has generally been approached syntactically (Mufwene himself is first to make this translation, 1986: 49). The idea resembles the mass/count distinction but, as Bruyn (1995:262) observes, is defined through usage rather than lexically: "any noun can be used as individuated or as non-individuated". In the latter case it must, according to Mufwene, remain unmarked. If one accepts Mufwene's dictum, it might be used to explain the interpretation of nominal reference in JP by *assuming* that syntactic cues reliably indicate individuation, but it cannot be used to validate this assumption. I have already referred to one problem this approach raises (inaccessibility of speakers' intentions) for empirical corpus research. However, as seen below, it also wrongly predicts an absence of variation for classes of NPs where marking turns out to show robust variation (or, in some cases, be infrequent).

As a result, variationist research has opted for detailed taxonomies of NP-type via determiner structure, which can be reliably coded from surface strings. Correspondence with the semantics of AtEC nominal reference is, again, not transparent, but at least this method permits a detailed, non-circular description of the linguistic distribution of number-marking, and an accountable quantitative analysis. Various schemes with 2 to 7 divisions have been employed by Singler (1988, 1989, 1991), Patrick et al. (1993), Patrick (1994), Tagliamonte & Poplack (1994), Poplack et al. (2000), Rickford (2006), and Singler (2007), mutually influencing each other.

The present analysis uses 9 divisions of NP-type, making as few as possible advance assumptions about the similarity of behavior of distinct constructions under number-marking, and carefully examining several NP configurations whose marking patterns have not been described before. In the process I attend to whether the NP is [\pm definite], [\pm individuated], and/or redundantly indicates number elsewhere besides

the post-nominal slot.⁴ For clarity, the NP-types are exemplified first with English, then Jamaican examples follow.

(5) NP-type classification:

- Bare nouns with no determiner, not under negation (=Bare), e.g. “boys” (adjectival modifiers do not count)
- Bare nouns in the immediate scope of JP negation (=Neg), e.g. “no girls”
- Definite article plus noun (=Def), e.g. “the boys”
- Possessive plus noun (=Poss), e.g. “her books”
- Demonstrative plus noun (=Demos), e.g. “those girls”
- Cardinal numeral plus noun (=Num), e.g. “3 boys”
- Non-numeral individuating quantifier plus noun (=Qf), e.g. “some girls”;
 - including cases where 2 or more Qf precede the noun (Qf+Qf+N), e.g. “some more books”,
 - and where numerals precede both (Num+Qf+N), e.g. “3 more girls”
- Partitive non-individuating quantifier (=PQf) plus noun, e.g. “loads of books”
 - including cases where PQf precedes a definitizer (PQf+Def/Poss/Demos+N), e.g. “plenty of those boys”
- Mixed determiners containing numerals (=MxN): cases with one or more definitizer (Def/Poss/Demos) or quantifier, plus Num, plus N, including:
 - Def+Num+N (“the 3 books”)
 - Poss+Num+N (“my 3 books”)
 - Demons+Num+N (“those 3 books”)
 - Quant+Num+N (“all 3 books”)
 - Num+Def+N (“3 of the boys”)
 - Quant+Def+N (“some of the boys”)
 - Num+Poss+N (“one of my sisters”)
 - Quant +Poss+N (“many of my sisters”)
 - Num+Demos+N (“3 of those boys”)
 - Quant+Demos+N (“some of those boys”)

Note that the first two categories involve no determiner; the next four contain a single determiner-type; and the last three may contain several determiners of one or more type. Bare nouns are by far the most frequent, comprising one-third of all data (n=910

in the joint analysis of both datasets). The next most frequent are the straightforward cases of simple definite (n=489), possessive (n=335), and numeral (n=270) determiners.

The rare cases of Neg (n=33) have not been distinguished in previous analyses, but are problematic. In standard Englishes, the negated NP *no brik* in (8) might be quantified and pluralised (“(any) brakes”), hence coded for quantifier; or it might be indefinite singular (“a brake”), hence excluded; or even bare plural indefinite (“brakes”), hence coded bare. In JP, which features negative concord, nouns falling within the scope of negation are thus difficult to evaluate for number. It is unclear how earlier analysts handled such cases;⁵ below they are isolated and examined. (Cases with standard-like negation, e.g. *Ai don hav eni doots* “I don’t have any doubts”, are not coded Neg.)

Cases with Demonstrative (n=206) involve a third form *dem*, identical in shape to the post-nominal pluralizer (and the 3pl pronoun). Some analysts have conflated the two, calling the pre-nominal demonstrative a “pluralizer” (e.g. Holm 2000: 215), but it is no more so than plural numerals or quantifiers are. The cases of Qf (n=223) are unified in that they all show number redundantly outside of the post-nominal position, are indefinite, and refer to individuals which are in principle denumerable. The cases of PQf (n=101) contrast with Qf (and indeed with all other nouns taking determiners) in that they refer to an ensemble or collectivity. Cases of MxN (n=154) all show number before the noun (via the numeral), and have definite reference; they have not been singled out in other research, and it is unclear how analysts have treated them.

Conjoined elements were considered to share the same determiners unless conflicting evidence appeared. Thus all three animal nouns in (6) were coded for possessive determiners (the 3pl possessive inevitably also shares the phonological form *dem*).

- (6) *Evibadi hav dem haas an dem myuul an __ dangki* (Mina)
 “Everybody had their horses and their mules and (their) donkeys”

JP examples of each category are:

- (7) Bare: *mash op som brik, an iz han-kyaat dem yuuzin* (Matty)
 “...pounded some bricks, and they were using hand-carts”

- (8) Neg: *Di bos-dem...don inshor, fa dem no av no briek.* (Mina)
 “The buses aren’t insured for they don’t have (a)(ny) brake(s)”
- (9) Def: *A no iivn nomba - rimemba di nuots dem agen.* (Mina)
 “I don’t even rem- remember the notes anymore”
- (10) Poss: *Me friends-dem don't have dem kind a problem.* (Ava)
 “My friends don’t have those kinds of problems”
- (11) Demons: *Yu refa tu dem az gyangz... diiz kruu yu sii* (Noel)
 “One calls them ‘gangs’... these crews, you see”
- (12) Num: *Ai get bak iylekchrisiti hiyr.. fua dee.. fuor deez!* (Tamas)
 “I got the electricity back here... 4 days... 4 days!”
- (13) Qf: *If yu av... aal difren nashanaliti tu wark* (Tamas)
 “If you have to work with all different nationalities”
- (14) Qf: *Me start earn few shillings from di work* (Ava)
 “I started to earn a few shillings from the work”
- (15) PQf: *siddung an study fi how-much-how-much years* (Cammy)
 “...sit down and study for years and years”
- (16) Mx: *A had a guold ring, a put it an wan a di ada chien* (Rose)
 “I had a gold ring, I put it on one of the other chains”
- (17) Mx: *Som a di bos-dem ron oot dier don inshor* (Tamas)
 “Some of the buses running out there aren’t insured”

Semantic category as a constraint

Lexical semantics has been hypothesized to play a role in number-marking in two distinct ways. One is animacy/humanness, which has been said to favor the appearance of Creole pluralizers (Cunningham 1970 for Gullah; Muhlhausler 1981 for Tok Pisin; Holm 2000:215), indeed plural marking in general (Comrie 1981: 178, 182). Poplack et al. (2000:95) report for Nigerian Pidgin English (NPE) that “nouns with human referents favor overt marking” with *-z*, a tendency also present in Igbo. Rickford (2006:121) points out that this effect has been found in “virtually all” the studies of number variation in AtECs to date, including Liberian varieties (Singler 1991; though not Kru Pidgin English, Singler 1988), but in no African American varieties. I initially distinguish not only the categories human and inanimate below, but also animals, and crops/plants. At stake here, among other issues, is whether

animacy effects operative in AtECs reflect African substrate retentions and/or the emergence of universally-available strategies under language contact and creation.

The second lexical factor is the possible inhibiting effect of measure words on *-z* marking. Poplack and Tagliamonte comment on historical trends in English which may have given rise to a tendency in British and American dialects to leave off plural *-z* from nouns indicating measures of distance, time, weight or currency, which they group together, and find highly correlated with numeric determiners (1994: 252). Such a widespread vernacular dialect feature is a good candidate for superstrate influence on AtECs. In addition to making a 4-way distinction among these measure words, I have singled out the two most frequent (*time* and *day*, together n= 143), as well as the most frequent non-measure word (*thing*, n= 193) in the analysis, as a check on frequency effects. Several of these lexical items correspond to words identified by earlier AAVE studies as possessing exceptionally low rates of *-z* marking (e.g., *cent*, *dollar*, *year* in studies by Labov et al. 1968, Wolfram 1969 and Kessler 1972). Since all these lexical items and classes are inanimate, they complement the animacy distinctions; hence they are all treated in a single factor group for Varbrul analysis:

(18) Semantic classification:

- Human
- Animal
- Crops/plants
- *Day* and *time*
- Other measure words of time, e.g. *year*, *hour*
- Measures of weight and quantity, e.g. *pound*, *pint*
- Measures of distance, e.g. *mile*, *acre*
- Units of currency, e.g. *shilling*, *quattie*
- *Thing*
- All other inanimates

Phonological constraints

Variable *-z* marking of number in many English dialects, including AAVE, and some AtECs occurs alongside *-z* marking of tense/aspect and possession (though not in JP, where these features are vanishingly rare); plural *-z* is “by far the most frequent of the

three types” in its potential occurrences (Wolfram 1969: 135). Considerable interest has focused on whether phonological processes of deletion or reduction account for much of this variability, preserving or removing an underlying final *-z*. Hence phonological constraints are important to study for AtECs as well, though canonical syllable shapes and phonotactics in these varieties may differ considerably (especially in varieties spoken in Africa which remain in contact with typologically very different languages; Singler 1988).

An expected effect is that both preceding and following non-sibilant consonants should favor zero-marking. The preceding case is due to cluster simplification (e.g., CCs → CCØ). The following case might be because the opportunity for resyllabification is reduced (/s, z/ resyllabify with all following vowels, but not all following consonants).⁶ Similar hypotheses appear to have motivated most variationist researchers to consider the effects of neighboring segments, subdivided into consonants, vowels and pauses. For the environment preceding the possibility of *-z* marking (called “Final segment” below, as it is always word-final), it is obviously relevant to include sibilants, given English syllabic plurals in /-Iz/.

- (19) *Frenz an a uol-dem, neva falo frenz an a uol.* (Bigga)
 “Friends in general, never follow friends in general.”

Plural *-dem* is studied here for the same phonological factors. However, it differs from *-z* in its location, since *-dem* attaches to the right edge of the NP, not the N (19, 3); and its absence is unlikely to be due to the same operations which may delete a non-syllabic final sibilant. As is typical in variationist work, contexts are organised by preceding (20) and following segment (21). The present analysis makes a 4-way distinction in each location.

(20) Preceding segment:

- Sibilant
- Other consonant
- Rhotic
- Vowel or glide

(21) Following segment:

- Sibilant
- Other consonant
- Pause
- Vowel or glide

A finer set of distinctions might well have been examined: Rowe (2005) further subdivides preceding consonants into nasals and liquids, while the following group adds nasals and glides. Here, however, the limitations of the Sistren texts become apparent. I assume that a small, robust set of distinctions is most likely to surface and be significant across both sets. For following pause, the standard orthography used in the Sistren texts requires a conservative solution. Most punctuation (e.g. ellipsis dots, end-of-sentence markers such as period and question mark) was converted into simple pause. However, suspecting that commas and dashes might be used differently, I separated them. In the event, there was no significant difference in mean marking rates between sentence pause and comma pause for either *-dem* or *-z*. Similarly, the coding of preceding rhotics was problematic, as rhoticity could not be judged aurally. However, in light of Wassink's (1999) documentation of relatively high rates of rhoticity for both rural and urban JP speakers, I coded final orthographic post-vocalic /r/ in positions where some lexical stress might plausibly be expected (e.g. *cashier*, *year*, but not *farmer*, which is normally realized /faama/ in JP), i.e. where rhoticity is most likely to occur in JP.

Envelope of variation: Exclusions

As in other studies of *-z*, I initially include all regular NPs (those which may be marked with *-z* in standard English) with clear plural reference.⁷ (Irregular nouns include such invariant cases as *flowers* and *shoes*, always containing *-z* in JP, which belong to the class of summation plurals that in English includes *scissors*, *pants*.) That is to say, even in the absence of number marking on the head with *-z* or *-dem*, plural semantics must be evident – from the linguistic context, the social context, or shared knowledge. The only exception was the uncertain cases under JP negation, which are included to discover how they patterned.

Invariable constructions are excluded. (22-3) are fixed collocations – the latter is treated as a mass; (24) is unambiguously plural, due to the 2pl African-derived pronoun /unu/, but such creolized constructions are never marked with *-z* (as with

pickney, below), for reasons of stylistic co-occurrence. Plurals in many proper names are also invariant (“Sistren Prints”, “Red Hills”).

- (22) *One deaf-ears man did live inna di yard* (Veteran)
 “A deaf man lived in the yard”
- (23) *come nyam out me nice rice and peas* (Ava)
 “...come eat up my nice rice-and-peas”
- (24) *Oonoo a leggo beast. Oonoo no come in yah!* (Veteran)
 “You [plural] are wild creatures. Don’t you come in here!”

Hypercorrection of *-z* in normal mesolectal speech, by placing a plural mark in a referentially singular environment, is exceedingly rare – (25) is the only clear example in 2,721 tokens, and it occurs on a regular noun. Excluding summation plurals and (22-24), there is not a single case of such hyper-correction among the 625 irregular nouns. This contrasts strikingly with Wolfram’s findings, where 10 of his 24 working-class Detroit AAVE speakers showed this type of hyper-correction, overwhelmingly to irregular nouns but occasionally to regular ones (1969:146).

- (25) *kyaan riili tel se wel, yu did du soch soch a tingz* (Mina)
 “...can’t really tell that, well, you did such and such a thing”

A different sort of over-generalization might result from simplification of final */-sC/* clusters to final */-s/*, and then application of the syllabic plural form. While there is variation between marking and non-marking of syllabic forms, e.g. with *dress* in (27, a correction in careful speech near the start of an interview), there appear to be no cases of over-generalization due to cluster simplification in the data – candidate cases all remain unmarked as in (26, by the same speaker a few seconds before). They do not surface with syllabic plurals as in the well-known cases of e.g. *posts* /posIz/, *wasps* /wasIz/, *desks* /desIz/ in AAVE (Green 2002: 114).

- (26) *Wel, hii du... pants, jakit, yes, evriting...* (Mina)
 “Well, he would do... pants, jackets, vests, everything”
- (27) *An ai djuu di sowing av jres, jresiz, aha.* (Mina)
 “And I would do the sewing of dress(es), dresses, mhm.”

It is customary to remove tokens of final *-z* before following sibilant segments (e.g. Wolfram 1969, Singler 2007) for reasons of neutralization in coding; I have not done so. For Veeton, there are only two cases of following-sibilant environments compared to 255 other following consonants, and I am confident of the coding of both tokens⁸; the effects of any error must be small. For Sistren, there are considerably more (47). However, the process of text production – where oral narratives were turned into text, edited, read aloud by the speakers and then agreed upon – meant that the written form represents conscious decisions about such cases. I have taken them at face value as representative of speakers' competence, whether exercised consciously or not.⁹ This decision will be evaluated from the results of statistical analysis; it is of course possible to remove such data after the fact using Varbrul.

The envelope of variation will be critically transformed at several points below. It turns out that the modelling of variation is best when several near-categorical subsets of the data are removed from the analysis of *-z* vs. zero, for both Veeton and Sistren. The result is not identical to previous analyses of number-marking in AtECs, but it does fit the facts of the language, and provides us with a revised estimate of the ecology of number variation.

Analysis: *-z* versus zero

The alternation between unmarked forms and forms marked with *-z* undoubtedly accounts for most cases of number variation, even in JP where *-dem* remains robust and common. The notion that one form (*-dem*) is basilectal, one (zero) mesolectal, and one (*-z*) acrolectal, and that they belong to three distinct grammars, is a simplistic model of lectal variation from the era before accountable corpus studies. A close examination of the present study's rich data-set shows that all mesolectal speakers use some *-z*, which alternates rapidly with zero – often in the same clause, and in the absence of any other evidence for code-switching. Moreover, co-occurrence of *-dem* and *-z* is also very common. Of the 20 speakers, 17 use *-dem*, and 14 have enough tokens (≥ 30 , Guy 1980) to generalize over; 10 of these 14 use not just all three forms, but co-occurring *-z* and *-dem* within the same NP, as in (3), (9), (10) and (19). The one-form-per-grammar model of lectal variation simply cannot be sustained in the face of this evidence.

Such co-occurrence is also evidence that *-z* and *-dem* fill different syntactic positions, so that it is perfectly accountable to consider either one's alternation with zero in a binary-choice model – that is, the zeroes they alternate with are different ones. Thus in JP, as well as in other varieties such as Gullah where *-dem* perhaps plays a vestigial role, there is no obvious reason to assume that the two overt markers are conditioned by the same constraints. Such an assumption forces the analyst to tailor the envelope of variation of *-dem* to fit a Procrustean bed: the familiar environments and patterns of the more frequently-occurring *-z*. This may lead to mistakenly ruling out data which would more fully characterize the creole form. Below I first report analyses that are compatible with earlier studies, and then proceed to ones with a better fit.

Table 4: Probability of *-z* marking in JP regular plural nouns across all data

	Sistren, all data		Veeton, all data	
<i>Sample size:</i>	1,554		1,167	
<i>Input probability:</i>	0.431		0.625	
<i>Marking rate:</i>	43.2%		59.2%	
<i>Chi-squared/cell:</i> ¹⁰	1.13 (878 cells)		1.15 (530 cells)	
	<i>Rank:</i>		<i>Rank:</i>	
<i>Factor group:</i>	Animacy	1	Individual	1
	Individual	2	Animacy	2
	<i>-dem</i>	3	<i>-dem</i>	n.s.
	NP-type	4	NP-type	n.s.
	Final seg	5	Final seg	3
	Foll seg	n.s.	Foll seg	4

Table 4 displays the ranking of explanatory variables in the best Varbrul analysis for the full Veeton data-set, compared to the Sistren one, with all regular nouns included. Details of individual factors will be examined in later attempts to model the variation.

As noted earlier, the average marking rate in the Sistren sample was noticeably lower than in the Veeton sample, but the overall range was very similar. Given the high degree of variability across individual grammars often hypothesized to characterise Creole continua (DeCamp 1971, Guy 1980; but see Patrick 1999), a factor group is included to distinguish individual speakers. (In analyses which focus on social distribution it may be used as a control, since it models the data most precisely, and eventually replaced by social factors, which have greater explanatory value.) Because it captures the idiosyncrasies of personal history, as well as any individual linguistic variability, and expresses the range of marking levels across the continuum, it is usually one of the most powerful factors ordering the variation. However, as long as speakers generally obey the same constraints, it has no further linguistic significance.

The semantic category of Animacy proves the strongest linguistic factor, as it did throughout all analyses (>100). Figures 1-2 demonstrate the range of variation accounted for by each variable (although Individual is selected first by the Varbrul tool, Animacy shows a wider range in Figure 2). Neither the syntactic constraint of NP-type, nor the co-occurrence with *-dem*, are significant to modelling the Veeton data. Final segment is always a lower-order constraint, and the following segment is never better than very weak (it is significant only for Veeton).

Figure 1. Range of variation for -z: Sistren (regular nouns, all data)

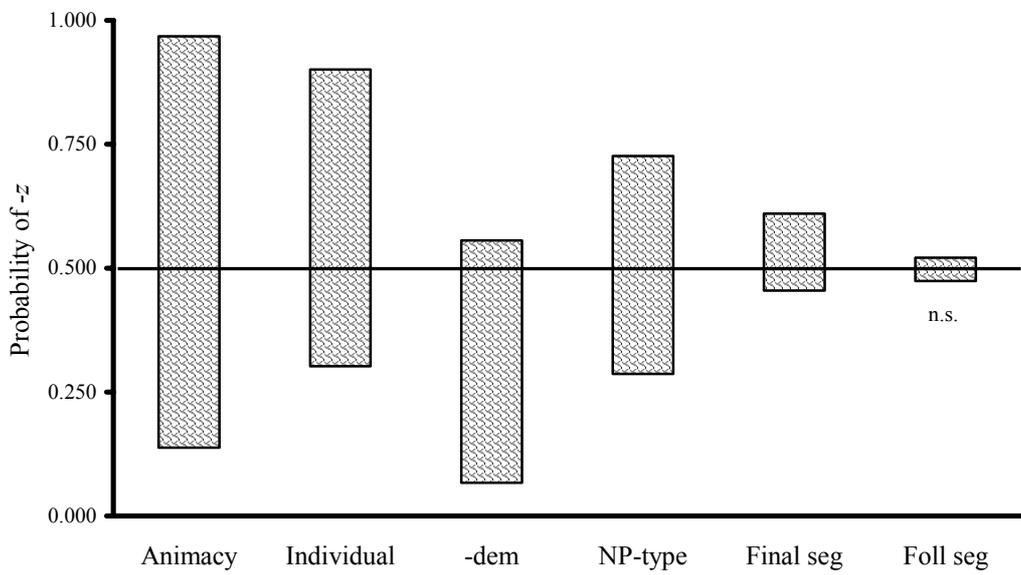
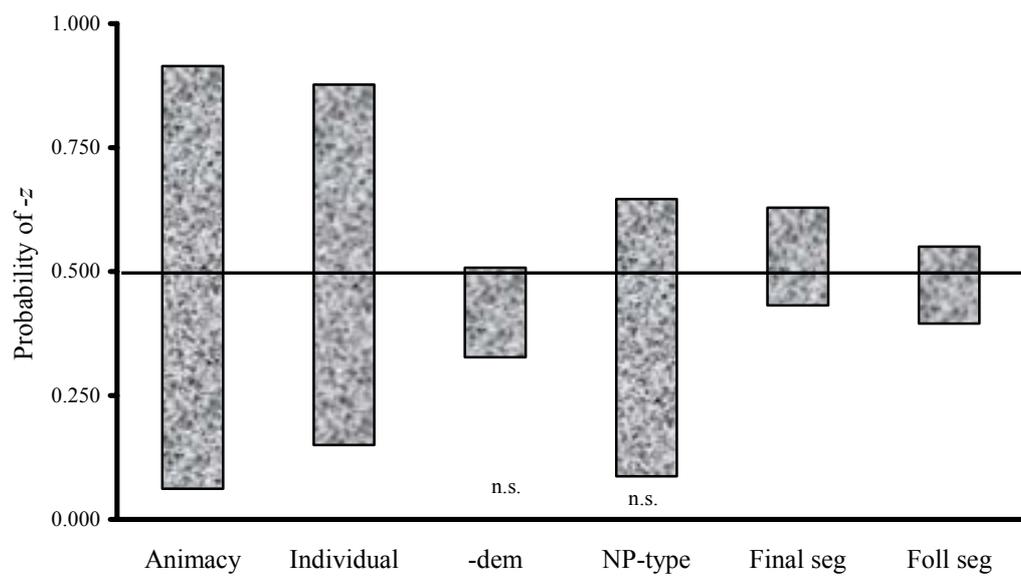


Figure 2. Range of variation for -z : Veeton (regular nouns, all data)



The main difficulties with this model are with NP-type and *-dem* for Veeton. First consider usage of *-dem*. Table 5 orders each data set into groups of four speakers, according to how often they inflect nouns with *-z* (the second column); raw numbers of *-z* are given in the next column. The Sistren speakers show consistent, gradient use of *-dem*: only a single speaker does not use it, and she is the one for whom there is least data. It is evident that those Veeton speakers who inflect *-z* less often (“V, low”) are on a par not only with the middle group of Sistren speakers, but indeed with the Sistren group as a whole, for both markers. They all inflect nouns with *-z* less than half the time, and use *-dem* frequently (columns 4-5); and show no reluctance to use both, redundantly (columns 6-7).

Table 5: Comparison of *-dem* usage in JP regular plural nouns across all data

	<i>-z</i>	Tokens of <i>-z</i>	<i>-dem</i>	Tokens of <i>-dem</i>	<i>-z-dem</i>	Tokens of <i>-z-dem</i>
Sistren, all	43%	672/1,554	7.9%	122	8/122= 7%	8
S, low	26%	175/669	11%	71	1/71= 1.4%	1
S, mid	45%	161/355	9%	31	3/31= 10%	3
S, high	63%	336/530	4%	20	4/20= 20%	4
<hr/>						
Veeton, all	59%	691/1,167	4%	50	20/50= 40%	20
V, low	43%	284/661	7.4%	49	19/49= 39%	19
V, high	80%	407/506	0.2%	1	n/a	1

On the other hand, those Veeton speakers who inflect *-z* very often (a mean of 80%) are qualitatively distinct. Their marking rates with the English-derived form, though not so high as to be designated categorical use, are at least comparable to the AAVE findings of Wolfram (1969), Kessler (1972) and Rowe (2005), where the conclusion

was that “black speakers definitely have the underlying noun plural” (Kessler 1972:230). The real problem for the above analysis, then, is that the Veeton dataset has a bimodal distribution: speakers either use *-dem*, in which case they frequently use it redundantly with *-z*, or they do not. Thus the presence or absence of *-dem* has little to no predictive value for modelling the Veeton data-set as a whole, and this factor-group must be excluded.¹¹

The difficulty with NP-type requires a similarly radical solution. This variable has no statistical significance in explaining the Veeton data; although it does with respect to Sistren, it behaves in a statistically unstable manner there and gives linguistically-odd results as well, an indication of difficulties in modelling. It has been observed before that non-independence in defining semantic and syntactic factors may introduce “erratic behavior” into an analysis (Poplack et al. 2000:101, note 3). In this instance, however, it is rather the influence of near-categorical environments which perturbs the data.

Further analysis of *-z* variation in the Sistren and Veeton data requires exclusion of NP-type, then (and, for Veeton, *-dem*), and a closer study of the patterning of several subcategories of plural NPs, both on syntactic and semantic grounds. In view of the historical process of collectivization cited by Poplack & Tagliamonte (1994:237) as favoring expression by zero plurals, it is striking that several of the measure-word categories show a near-categorical tendency to be marked with *-z* in JP. Measures of weight do not occur in the data, but measures of time and distance behave this way, with factor values of 0.949 and 0.931. To the contrary, however, measures of currency consistently, though mildly, disfavor *-z* marking, at levels of less than .300. It is clear that the measure words do not behave in a unified manner, and that as a group they have not inherited the widespread dialectal constraint against plural-marking.

The next-most favoring semantic classes for *-z* are the most-frequent words in the sample. *Time* and *day* are extracted from the time class of measure words, so this result is not surprising; if anything, frequency seems to have attenuated rather than sharpened the effect. The lexical item *thing* however is not a measure word, but rather belongs to the class of inanimates which, as will be seen, consistently disfavor *-z* marking; in this case, its high frequency goes along with a strong tendency now to favor *-z*. There is thus no simple effect of lexical frequency in these data.

The best analysis presented in Table 6 removes all these: the three exceptional high-frequency items, and all classes of measure words.¹² As noted above, NP-type is also excluded, and for Veeton the co-occurrence of *-dem*. This reduces the Veeton data-base by 20% and the Sistren one by 25%, and somewhat depresses the rate of marking overall.

Table 6: Probability of *-z* marking in JP regular plural nouns, across reduced data-sets

	Sistren, reduced data		Veeton, reduced data		Joint analysis	
<i>Sample size:</i>	1,168		941		2,721 (or 2,220) ¹³	
<i>Input probability:</i>	0.294		0.588		0.435	
<i>Marking rate:</i>	33.8% (395/1168)		58.1% (547/941)		50.1% (1363/2721)	
<i>Chi-squared/ cell:</i>	1.09 (102 cells)		1.05 (113 cells)		1.10 (1,030 cells)	
	<i>Rank:</i>		<i>Rank:</i>		<i>Rank:</i>	
<i>Factor group:</i>					Individual	1
	Individual	1	Individual	1	Animacy	2
	<i>-dem</i>	2	Animacy	2	<i>-dem</i>	3
	Animacy	3	(<i>-dem</i> n.s.)	--	NP-type	4
	Final seg	4	Foll seg	3	Final seg	5
	(Foll seg n.s.)	--	Final seg	4	Foll seg	6

It is now possible to conduct a joint analysis over both sets of data, with the exclusions noted above, and the results preserve the general contours (Figure 3). The most powerful explanatory variables are individual speaker, and animacy; after these the weighting falls off noticeably, but all factor groups are statistically significant, including NP-type.

Consider the individual linguistic factor values. Table 7 first presents the lexical semantic and syntactic co-occurrence variables, in the order in which they favorably influence the presence of *-z* marking. Within each group of factors, the vertical order is that which should be expected according to the hypotheses above and reports in the

literature. In particular, [+human] nouns are expected to favor *-z*, in an animacy hierarchy; the absence of *-dem* should favor *-z* occurrence, if they have the same function and redundancy is dispreferred; and nouns which are definite and individuated, and whose determiners do not overtly indicate number, should promote marking, which should decline in the absence of those qualities.

Table 7: Syntactic/semantic effects on *-z* marking probability (JP regular plural Ns)

	-z Probability	No. marked	Total	Marking rate
Animacy:				
Human	.641	362	659	54.9%
Animal*		13	102	12.7%
Crops/plants*	.195*	12	106	11.3%
Inanimate	.484	599	1,353	44.3%
<i>Total</i>		<i>986</i>	<i>2,220</i>	<i>44.4%</i>
-dem occurrence:				
<i>-dem</i> absent	.529	1,335	2,549	52.4%
<i>-dem</i> present	.149	28	172	16.3%
<i>Total</i>		<i>1,363</i>	<i>2,721</i>	<i>50.1%</i>
NP-type:				
Def	.607	237	489	48.5%
Dems +Poss + Mix	.386	297	695	42.7%
Qf + Num	.510	280	493	56.8%
Bare + PQf + Neg	.522	549	1,044	52.6%

(* The categories of crops/plants and animals are merged in the best probability analysis)

With measure words and frequent lexical items removed, the remaining categories clearly belong to a hierarchy of animacy. The ordering is however not what would be predicted, Table 7. Such a hierarchy should show animals intermediate between the human and the inanimate, instead of being significantly the least likely to be inflected, as seen here. Yet this ranking is very robust: it surfaced independently in the Veeton and Sistren materials, for both the full and reduced data-sets. The explanation is not

clear, but it may result from inanimates being a very large default category, containing many items which are not concrete (e.g. *fact*, *district*, *beating*, and now *dollar*) as well as those which are canonically inanimate (e.g., *stone*, *plate*).

The effect of *-dem* co-occurrence is robust across the sample as a whole. Recall that we characterized the small Veeton sample earlier as bimodal in respect of *-dem* usage. It is appropriate now to include the high-inflecting Veeton speakers in the joint analysis of *-z*, as genuinely representing the upper-mesolectal end of the Jamaican Creole continuum, which was not strongly sampled in our selection of the Sistren material. It is evident that while the absence of *-dem* barely favors inflection with *-z*, which appears to be a vigorous variable process in its own right, the presence of *-dem* has a distinctly inhibiting effect.¹⁴ This asymmetrical influence nevertheless confirms the strategy of analysing the two markers as alternative ways of marking the same thing and suggests some version of a functional, locally disambiguating constraint.

The syntactic constraint of NP-type has only weak explanatory value for JP, at best. When all ten subcategories were kept distinct, it never proved statistically significant; some sub-classes were small (Neg and PQf), and none had a very strong positive or negative effect. But Varbrul allows the combination of data subclasses, and this reanalysis strategy is followed where (a) there is a linguistic similarity or plausible hypothesis uniting them, and (b) where statistical modelling is improved. Thus, just as the animacy subcategory of crops/plants was combined with animals in Table 7, the best analysis combines NP classes on such principles.

The strongest factor favoring *-z* marking – indeed, the only one to have a notable positive effect – is the presence of a definite article. In Mufwene's terms, operationalized by Singler (1989) for accountable variation analysis, these NPs are [+definite], [+individuated], and do not redundantly indicate number elsewhere in the NP (hence, *-z* is required to do so). The data in Table 7 rather weakly corroborate this prediction of (categorical) marking preference.

One would expect that other NPs for which this feature analysis holds true would pattern together with Def. The only other such category is possessives, which are often analysed as being definite, along with demonstratives (e.g. Poplack et al 2000:81); indeed, Def and Poss are predicted to behave identically by Dijkhoff (1983) and Mufwene (1986). Next most similar are demonstratives, which contrast only in that, as they do overtly and redundantly indicate the number of the noun they modify, they are predicted to promote *-z* marking somewhat less.¹⁵

However, in analysis after analysis Poss was repeatedly one of the most-disfavoring NP-types, together with NPs featuring preceding demonstratives, and also mixed NPs (the vast majority of which contain either Def, Poss or Demons plus a Numeral; i.e., 9 out of 10 types in (5) above). In Table 7 Poss, Demons and Mixed are grouped together, and clearly occupy the bottom of the hierarchy, rather than closely resembling definites. An alternative explanation of the behavior of the Demons type, clearly opposed to Mufwene's semantic constraint, might be that its similarity to post-nominal pluralizer *-dem* has resulted in a generalized constraint against co-occurrence with any post-nominal marker of plurality. Indeed, we find a strong dispreference for *dem* Noun-*dem* (only 2 of 222 cases of Demons are marked with *-dem*, though it is not ungrammatical in JP, contra Mufwene 1986:40), but little evidence for the extension of this to *-z* (99 of 206 cases are so marked).

Perhaps even more surprisingly, the NP-types corresponding to those predicted by Mufwene and others to categorically prevent plural marking – or, in variationist restatement, to strongly disfavor it – are actually slightly favoring in JP. Partitive, non-individuated quantifiers and bare nouns (including those under negation) have none of the features which should promote *-z* marking. Yet more than 500 examples bear the inflection, and the category mildly favors its appearance at a probability of 0.522, strongly rejecting Mufwene's semantic hypothesis.

A slightly weaker, yet still positive, association with *-z* can be observed for numerals and other individuating quantifiers. This is also unexpected, given Mufwene's claim that nouns "delimited with an individuating quantifier or a numeral do not combine with the pluralizer *-dem*" (1986:40). Under the hypothesis that this Creole marking system, which he bases on an analysis of basilectal JP, should apply straightforwardly to *-z* (Mufwene suggests as much for mesolectal Gullah, 1986:52, and Poplack et al apply this to Diaspora varieties, 2000:82), Num and Qf should be disfavored; yet they bear a probability of .510, with 280 counter-examples.

Turning to phonological constraints, Table 8 draws on the same analysis of both data-sets illustrated in Tables 6-7. Again, factor groups appear in the order of their statistical significance in determining variation; and the factors within them appear ranked according to predictions in the literature. For both the final segment of the word to which the *-z* inflection is attached, and the initial segment of the following word,¹⁶ the expectation is that vowels should favor marking, and non-sibilant consonants promote non-marking (Poplack et al 2000, Rickford 2006).

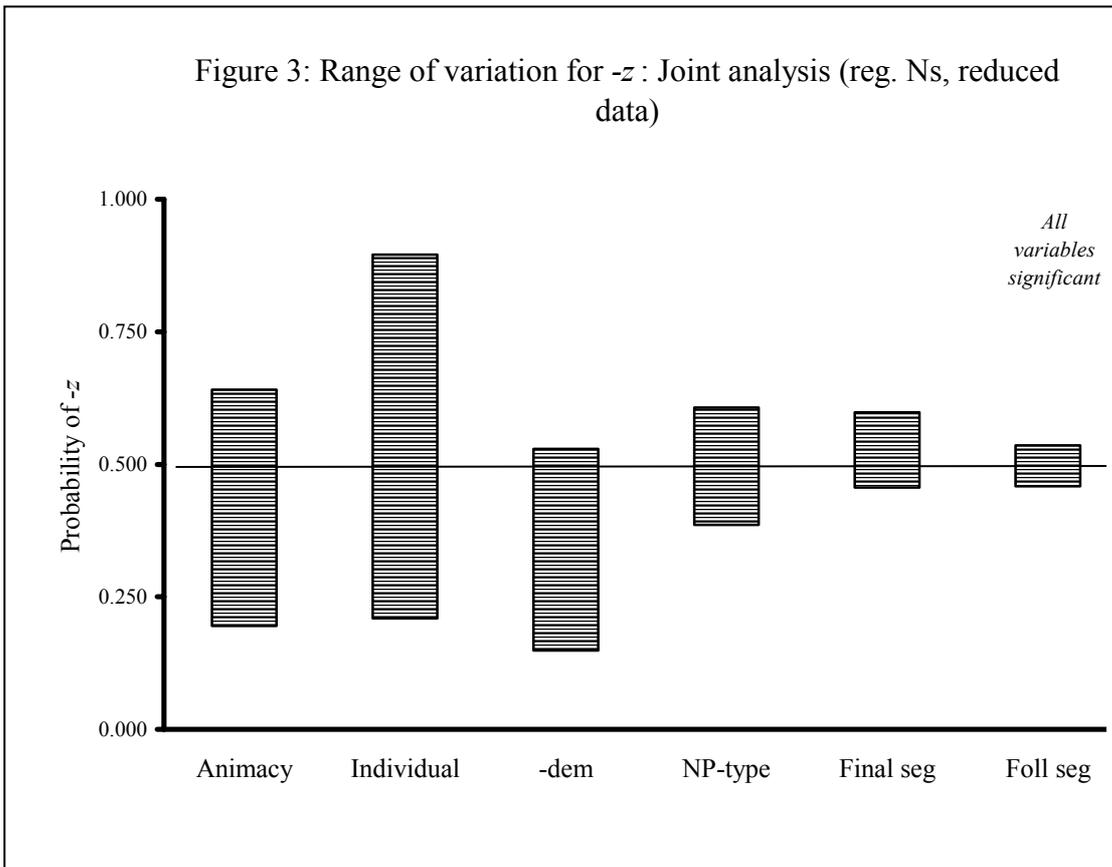
In these best-run analyses, modelling improves when sibilant and non-sibilant consonants are treated together. This reflects their close co-patterning throughout the process: e.g., in earlier analyses, final sibilants and non-sibilants were not significantly different in effect (at .497 and .441, respectively), and following sibilants and non-sibilants were even closer (at .461 and .451, respectively). Similarly, merging final vowels and rhotics improves the overall analysis slightly and fits with earlier descriptions of JP as non- or semi-rhotic (e.g. Wells 1982), though not with Wassink’s (1999) data. Finally, following pause is a neutral environment for $-z$ marking at .496. The implications of these constraints are discussed more fully in Rickford (2006:120-121). It must be noted, however, that the present figures are all quite close to .500, and that neither of the phonological context variables (nor, for that matter, NP-type) accounts for much variation.

Table 8: Phonological context effects on $-z$ marking probability (JP regular plural Ns)

	-z Probability	No. marked	Total	Marking rate
Final Segment:				
Vowels & rhotics	.598	492	843	58.4%
Consonants	.456	871	1,878	46.4%
<i>Total</i>		<i>1,363</i>	<i>2,721</i>	<i>50.1%</i>
Following segment:				
Vowels	.536	516	956	54.0%
Pauses	.496	504	1,020	49.4%
Consonants	.459	343	745	46.0%
<i>Total</i>		<i>1,363</i>	<i>2,721</i>	<i>50.1%</i>

Figure 3 summarizes the range and impact of each variable in the joint analysis.

Figure 3: Range of variation for -z : Joint analysis (reg. Ns, reduced data)



Discussion

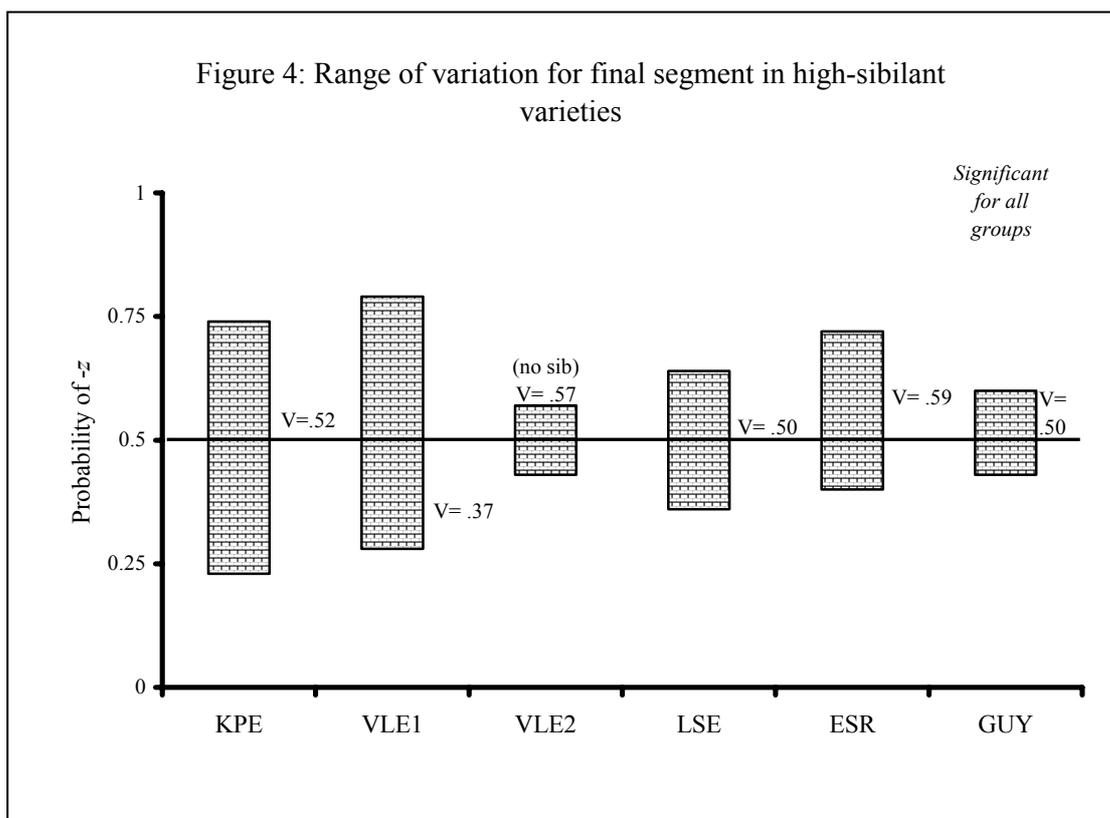
Which of the proposed accounts of constraints on number marking in AtECs govern the selection of forms in the mesolectal JP data examined? Evidently, multiple principles operate simultaneously. There is considerable individual variation in levels of marking, but do the same constraints apply across the Jamaican continuum? If so, then differentiation of speakers is largely quantitative – if not, perhaps several grammars are in contention. Can the structural constraints be unified by functional considerations that facilitate speaker or hearer activity, and might be linked to developments during creolization? Can links be drawn between varieties – either synchronically, uniting say African or New World varieties, or historically, shedding light on the connections between AtECs, AAVE and/or Diaspora communities?

Phonological constraints have been crucial to such efforts recently. The Ottawa Circle (represented in e.g. Poplack 2000, Poplack & Tagliamonte 2001) argue that they are the site “[w]here the Early AAE varieties differ from the English-based [C]reoles”, with the two sets showing “different configurations of constraints” (Poplack, Tagliamonte & Eze 2000:98). This claim is vigorously contested by Rickford, who demonstrates “that ‘EarlyAAE’ is not uniform” and “challenge[s] the neat line they draw between ‘EarlyAAE’ and ‘Pidgin-Creole varieties’” (2006:120-1).

Findings on final segment have been rather contradictory in the AAE literature. Rowe’s (2005) examination of the AAVE dialect of isolated Princeville NC gives evidence of a high rate of absence of plural *-z*, at 14%, based on the largest AAVE database reported yet (n=2,934). It displays a strong and expected effect of following consonants (especially nasals) disfavoring *-z*, but no significant effect of preceding segment. This pattern is reminiscent of many studies of consonant-cluster simplification in which clusters are disfavored before following consonants (Patrick 1999:162, Table 5.17 reviews 13 studies, including JP, all of which show this pattern), and preceding segments are often a weak or insignificant effect (*ibid.*: 129).

However, preceding phonological contexts seem more influential in AtEC and AAE Diaspora varieties. Final segment is a significant effect in three Liberian varieties – the Diaspora variety of Settler English (Singler 1989:55, Table 9), the VLE Creole continuum (Singler 1991), and the basilectal Kru Pidgin English (KPE; Singler 1988:346) – as well as the Southern US-based Ex-Slave Elders (ESE; Poplack, Tagliamonte & Eze 2000:82, Table 3.1), the only true audio-recorded Early AAE data. For all these, nouns ending in sibilants strongly favor *-z*, even more than vowels

do, while non-sibilant consonants disfavor.¹⁷ In Figure 4 the top of each column represents sibilants, and the bottom other consonants, while vowel probabilities are marked with “V”. The addition of *-z* after a sibilant generally results in the familiar syllabic /ɪz/ plural which, as a *-VC* syllable, is phonotactically favored; as Singler notes, in this respect “plural marking in LSE is like plural marking in Standard English, except that in LSE it is variable” (1989:57-58).



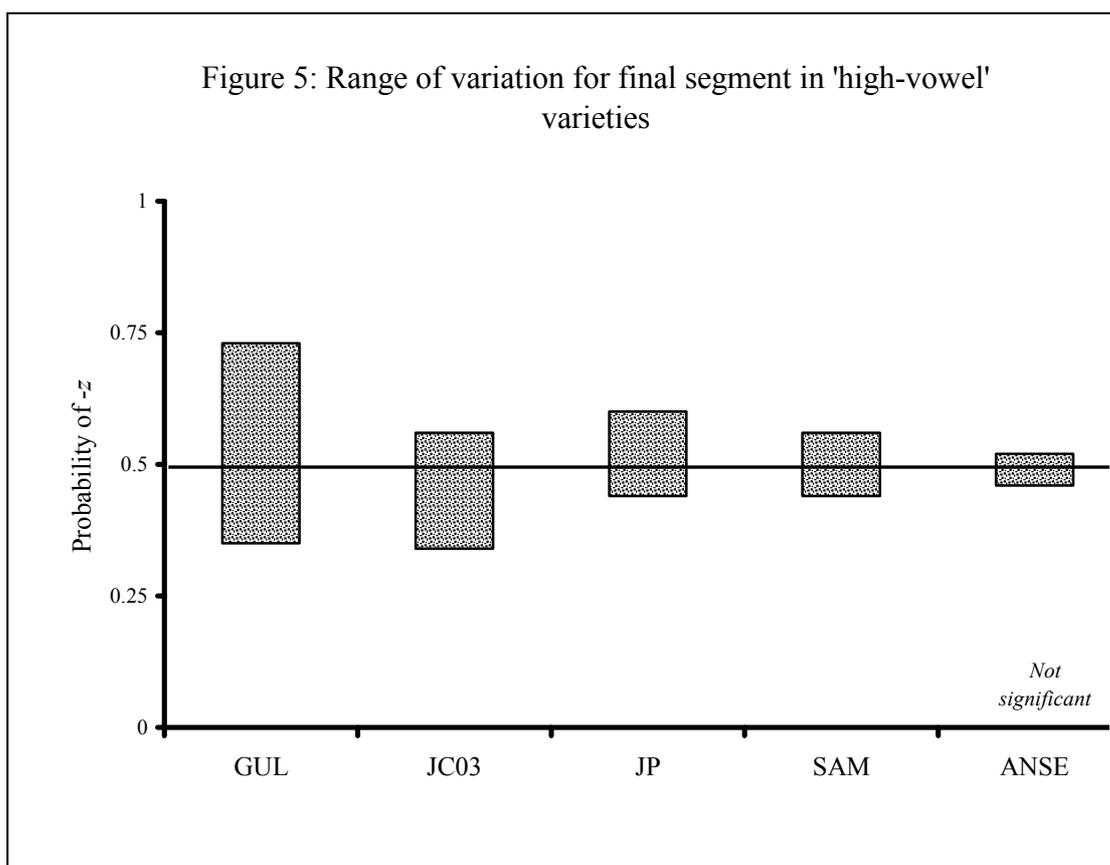
While it is not surprising that the Ex-Slave Elders fall in with a standard-like pattern – it has been often noted (e.g. Bailey, Maynor & Cukor-Avila 1991) that in many respects their careful interview speech is closer to SE than informal contemporary AAVE data – it seems at first sight curious that KPE should be similar. A pidginized AtEC acquired in adulthood by first-language Klao speakers, KPE displays “a strong preference for vowel-final syllables” (Singler 1988: 345), and tolerates single syllable-final consonants. Hence, it is not standardness (which must result in a leveling effect across syllable structures, since marking is equally obligatory for all), but the phonotactic hierarchy *-VC > -CVC > -CVCC*, that causes KPE to converge

with these varieties. Rickford's mesolectal Guyanese data (2006:119, Table 4) essentially belong to this group too, given that sibilants favor marking and other consonants disfavor (the intermediate position of vowels matches other varieties in the group, despite their neutral value at .50). Thus while it may be uncertain whether to attribute the Ex-Slave Elders' speech to the influence of English or to contact phenomena favoring simple syllable structures, the strength of the ESE preference for sibilants suggests the latter.

A slightly different result occurs where vowels favor $-z$ marking but consonants (both sibilant and non-sibilant) do not. This "high-vowel" pattern unites Gullah (Rickford 1986a) with the AAE Diaspora varieties Samaná English (SamE) and African Nova Scotian English (ANSE; both in Poplack, Tagliamonte & Eze 2000:82, Table 3.1, though the effect is not significant in the latter variety). As well, JP falls in with this group, for which the primary distinction is between syllable-final obstruents and sonorants. Rickford's Jamaican data (JC03; 2006: 119, Table 4) closely confirm the data in Table 8, above ("JP" in charts). The pattern is more variable, since sometimes sibilants are least-favoring, and sometimes other consonants; in Figure 5 the top of each column represents probabilities for vowels. The chart makes clear that, except for Gullah, the range of variation is much smaller than for the "high-sibilant" varieties of Figure 4 (except for Guyanese, where it is small too; in VLE2 it is only small because sibilant tokens have been left out).

The distinction between the two patterns seems robust, and ties in with canonical syllable-structure preferences. Yet it is difficult to interpret historically: Caribbean AtECs appear in each set of varieties; so do AAE Diaspora varieties; so too do Gullah and ESE, both conservative Southern varieties which have been taken as representing ancestral strains of AAVE. What can be said is that all the Liberian varieties – the only ones with recent and continuing contact with Niger-Congo languages, which contrast sharply with English in their phonotactics – are "high-sibilant".¹⁸

Moreover, though both Jamaican data-sets appear to be "high-vowel", not too much should be made of this. Neither accounts for much of the variation; moreover, in the many separate analyses of the Veeton and Sistren data-sets, it became clear that the Sistren speakers as a whole were "high-vowel", with final sibilants consistently disfavoring $-z$ at levels below non-sibilant consonants, while the Veeton speakers were ambiguous, with final sibilants showing favoring levels for $-z$ around .60, though still slightly lower than vowels at .65.



For the following segment constraint on plural $-z$, researchers have reported “a very consistent trend found in both contemporary and early AAE studies” (Rowe 2005:35) in the expected direction, with $-z$ favored by following vowels and sometimes pause, and zero by consonants. Poplack et al. (2000) also report a simple consensus, claiming that so-called ‘Early AAE’ varieties (in which they mix both the ESE and the contemporary Diaspora data), but not AtECs, show “the by now familiar effect: consonants favor zero realization” (2000:98; this claim is falsified by the Gullah data which they report in their Table 3.6, as Rickford 2006 observes.) Looking more closely, however, several distinct patterns have been reported in the literature for following segment.

- (28) Following vowels favor $-z$, against both pause and consonants which favour zero-marking, for these African American groups:
- the Ex-Slave Elders (Poplack & Tagliamonte 1994:242, Table 5);
 - an elderly Gullah speaker (Rickford 1986a, Table 3); and

- Rowe's (2005:33, Table 4.1) isolated Princeville data, reported to be "a socially insular community... preserving earlier forms of AAE" (Rowe 2005:83).

This might be explained by ease of resyllabification before vowels. A contrasting pattern is:

- (29) Both following vowels and pause as the favoring environment for $-z$ marking, with consonant alone disfavoring, for two AAE Diaspora varieties (on both see Poplack & Tagliamonte 1994:242, Table 5):
- Samaná English (SamE) and
 - African Nova Scotian English (ANSE).

The argument for this runs similarly to that for (28), with the addition that following pause – being linguistically neutral – may be realized either like vowels or consonants, and is subject to dialectal variation across speech communities (Guy 1980, Rickford 2006:118-20). The question then is why the Diaspora dialects show this minor divergence from the other African American varieties in (28) which they broadly resemble.

Yet another widely-found pattern is:

- (30) Both vowels and consonants favor $-z$, over following pause as the least-favoring. This has been documented for two AtECs outside North America:¹⁹
- basilectal Guyanese Creole (Rickford 2006:119, Table 4); and
 - Kru Pidgin English (Singler 1988:346).

This may be due to constraints on syllable codas as formulated by Singler (1988:347), but it is not entirely clear what would explain this as a broader Creole pattern. Studies with larger data-sets are required to confirm its generality.

It would be neat to conclude that AtECs show the tendency in (30), US African American varieties reflect that of (28), and AAE Diaspora varieties manifest that in (29). But this is too simple, and leaves out the Jamaican data: the current findings from Table 8 fit best with (28), or perhaps with (29) considering that pauses are neutral, and not with the other creoles of (30). Indeed, before the data exclusions made on other grounds above, the JP data pattern with (28), and afterwards with (29).

Moreover, Rickford's JC03 data show a unique distribution, with only consonants actually favoring *-z* against vowels and pause – again, a problematic finding.

Though it is difficult to label these patterns by their geographic or historical distribution, it is nevertheless a striking result that the Diaspora AAE varieties do not appear to pattern identically to attested AAVE data; that the Diaspora varieties do pattern with JP under some analyses; and that all AAVE data pattern together with Gullah, and (under one analysis) the mesolectal JP data. Simplifying generalizations which tidy away conflicting results may conceal more than they illuminate; explanations are not currently satisfactory, but neither should they be pressed at the expense of detailed description. In truth, only a couple of studies have yet been performed on databases large enough to inspire confidence.

On the other hand, it is certain that semantic factors are among the strongest linguistic determinants of variation in JP – but not referential status as hypothesized by earlier theorists: rather, lexical semantic constraints founded on animacy (as well as the categorizing function of measure words, and possibly also frequency effects). The animacy constraint has also been primary in other AtECs: Vernacular Liberian English (Singler 1991: 549) and Nigerian Pidgin English (NPE; Tagliamonte, Poplack & Eze 1997: 120). Both varieties are spoken in Africa today, and it might be supposed that such a constraint results from contact phenomena with regional languages in which animacy is relevant, such as Mande languages for VLE; indeed, Poplack, Tagliamonte & Eze prefer to conclude that animacy effects are due to “substrate influence from Igbo” (2000:96) rather than arising e.g. out of universal tendencies during pidginization or creolization processes.

However, animacy is also reported to condition number-marking in Guyanese Creole, both mesolect and basilect (Rickford 2006: 121-123), spoken 1500 miles away from JP. Strikingly, Rickford also tests the 3-way distinction, and replicates the finding that [+animate, -human] nouns show the strongest tendency to zero-marking, a result out of line with animacy hierarchies (human > animate > inanimate), and one for which no relevant African antecedent has been cited. Another precise resemblance among Creole varieties is thus noted, yet one which requires further testing: other analysts have only examined the dimension [\pm human] or [\pm animate], without distinguishing animate non-humans (e.g. Singler 1991, Poplack & Tagliamonte 1994,

Poplack, Tagliamonte & Eze 2000), and would not have been able to distinguish the pattern in question from a general animacy result. Hence the explanation offered for animacy effects in NPE cannot be assumed to extend to New World Creoles.²⁰

The behavior of the measure-word category also deserves comment. Poplack et al (2000: 91) found that for the Diaspora varieties and Ex-Slave Recordings, “nouns of weight and measure appear to favor an *s*-marked plural”, i.e. they did not show the influence of traditional English dialects in this regard. They found a similar pattern for NPE, and JP displays it in near-categorical form above. In this respect, Diaspora and early varieties of AAE certainly resemble Creoles, including JP, more than the white North American and British dialects cited as disfavoring marking in these contexts. Their account of such dialects is again a functional one: inflection is discouraged on measure words by the presence of numerals, since “numeric determiners and nouns of weight and measure are highly correlated... rendering their individual effects inaccessible to non-scientific observation” (Poplack & Tagliamonte 1994: 252).

The distributional comment applies also to the JP data, where numerals occur 10 times as often in plural regular measure nouns (171 Num / 417 MW, or 41%) as they do with other plural regular nouns (99 Num / 2,304 non-MW, or 4.3%). However, this data set is large enough to test individual effects, and the result is that the patterning of measure words in JP turns out to be independent of the presence of numerals.

The general pattern is that Num very slightly favors inflection with *-z* at 56% (see also Table 7), while the presence of MWs does so more markedly at 63% (or even higher, if we discount the dissimilar category of currency nouns), so that their probabilities are near-categorical. But on the subset of MWs that are accompanied by numerals, inflection actually increases to 70% (120/171), rather than declining; while in the subset of numerals that occur with non-MWs, it drops precipitously to 31% (31/99). In other words, despite their high correlation in the JP dataset, the mild effect of Num is dramatically over-shadowed by an independent tendency for MWs to favor plural inflection with *-z*. Whatever the source of this effect in JP, it may well be the same as in the other AtECs and related African American varieties, which all behave similarly. No evidence has yet appeared for a historical explanation deriving from British dialects of English, which tend to show the opposite effect.

Table 9: Categorical predictions for number marking vs. variationist research results

NP-type	Mufwene claim	Restated	JP	VLE	NPE	Key to Marking -z:
Def	Categorical mark	++	+	+	+/X	++ <i>favor strongly</i>
Poss	Categorical mark	++	XX	N	N/X	+ <i>favor weakly</i>
PQf	Categorical zero	XX	+	N	X/na	<i>N= neutral</i>
Bare	Categorical zero	XX	+	X	X/X	<i>X disfavor weakly</i>
						<i>XX disfavor strongly</i>

The syntactic/semantic constraint of NP-type, outlined in the work of Mufwene (1986) and others, has yet to be confirmed in detail by any accountable variationist analysis of AtECs, and it is not confirmed here by the JP data. A generous test of this hypothesis would (a) translate categorical predictions of presence/absence of particular marking patterns into significantly favoring/disfavoring tendencies, and (b) focus on only those categories for which it makes the strongest predictions. Accordingly, Table 9 restates and tests several clear claims, for the two categories expected to most or least promote plural inflection.

It is clear that only one of the four predictions can be said to be corroborated in the JP data, and that rather weakly. Comparison with the two other AtECs for which precise figures are available does not improve things, though neither are they identical. Data for Vernacular Liberian English (Singler 1991, 2007) find similar results for Def and corroborate the predictions for Bare nouns, but find Poss and PQf to be neutral – surely a significant failure to confirm, in the case of claims for categorical patterns.²¹ Data for NPE are drawn from Poplack, Tagliamonte & Eze (2000), who present two tables with somewhat contradictory findings, and contrasting numbers of tokens. In the absence of any explanation, I cite both sets of results (the first rating derives from their Table 3.4, the second from their Table 3.5).²² The NPE figures weakly bear out Mufwene’s predictions for Bare and PQf, but not for Def or Poss. While research on other AtEC varieties may yet clarify things, there seems little prospect of Mufwene’s account being upheld in detail.

In fact, for these putatively clear cases, it is striking that not a single prediction has been strongly confirmed across all, or indeed any, varieties. The closest thing to a consensus of support is the result that Def+Noun tends to be marked, which clearly carries some weight; the claim that bare nouns tend to go unmarked may only be contradicted by the JP data, but the 549 counter-examples of Table 7 cannot well be ignored.

On the whole, the picture is not one of a few simple categories accounting neatly for variation, in a manner consistent across new languages that have had little time to elaborate or complicate their structure; but rather, of a large array of surface structures – point (5) above lists at least 22 possibilities, and they are not exhaustive – that map onto a complex set of referential possibilities in a fashion that is not entirely transparent. In the degree of its complexity, at least, though not in the details of its structure, the JP mesolect contrasts little with vernacular English.

Such a perspective may not come as a surprise to all those doing empirical work on Creole languages, but an over-simplified and over-generalized picture of Creole grammar may potentially lead non-creolists into error. In a number of detailed analyses in service of the hypothesis that the origin of African American English was not influenced by creolization processes, the Ottawa Circle have repeatedly compared analyses of African American Diaspora and enclave varieties, and the Ex-Slave Elders recordings, with what they suggest are pan-Creole structures. The logic is that a demonstration of the absence of pan-Creole constraints and patterns in AAE varieties should support their neo-dialectologist position, locating AAE origins in British Isles dialects.

A significant flaw appears in such arguments when the putative pan-Creole patterns turn out not to adequately characterize the Creoles which are the best comparison to AAE. The difficulty is clear: a description that is not true of Creoles themselves, cannot serve as the foundation for either confirmation or rejection of Creole influence on other varieties. This echoes the case of earlier work on past-marking: Tagliamonte & Poplack (1988) relied on work by Bickerton describing the “creole prototype”, much of which has been soundly rejected in later analyses (e.g. Rickford 1986b, Sankoff 1990, Patrick 1999, Hackert 2004). The present results and comparisons also make clear that one cannot speak with authority of “the received wisdom about plural marking in creoles” (Poplack, Tagliamonte & Eze 2000: 94),

“the creole local disambiguation system” (*ibid*: 88), or “quintessentially creole” effects (*ibid*: 100).

Poplack et al’s proposed constraint of “local disambiguation” (2000: 80) is a good example of the pitfalls. It builds more precisely on earlier notions advanced by creolists that marking patterns are driven by a need for “discourse clarity” (James 2001: 20) or inflection “where contextually necessary” (Sebba 1997:145). Other things being equal, NP-types with determiners containing a redundant indication of number should show less marking. Leaving aside the Mixed NPs, this hypothesis pits subcategories Demons, Num, Qf, PQf (all indicating number overtly, hence expected to disfavor *-z*), against Bare, Def and Poss (none of which have determiners expressing number, hence should favor marking).

Table 10: Variable predictions for number marking: Testing local disambiguation

NP-type	Redundant marking?	Prediction of local disambiguation				Key to Marking -z:
			JP	VLE	NPE	
Demons	Yes	X(X)	XX	+	++/N	++ <i>favor strongly</i> + <i>favor weakly</i> N = <i>neutral</i> X <i>disfavor weakly</i> XX <i>disfavor strongly</i>
Num	Yes	X(X)	N	X	+ / ++	
Qf	Yes	X(X)	N	+	N / +	
PQf	Yes	X(X)	+	N	X / na	
Bare	No	+(+)	+	XX	X / X	
Def	No	+(+)	++	N	+ / X	
Poss	No	+(+)	XX	++	N / X	

A cursory glance at Table 10 shows there is little support in the JP data for this hypothesis, which makes more wrong predictions (4) than it does correct ones (3). Moreover, the VLE data also do not offer any confirmation of this: Singler’s Table 8 for VLE (1989:55) finds 5 contradictions (three of them distinct from the JP ones!), and only 2 correct predictions. Coincidentally, the same tally for NPE may be derived from Table 3.4 of Poplack et al (2000:92; both studies use 7 categories rather than the

present 9). In other words, no empirical study yet exists which finds this “creole system” to hold of any Creole. Poplack et al. make this point (2000:95), arguing that the effect is rather counter-functional for NPE: plural *-z* “tends to be marked overtly in contexts in which its absence would be most noticeable.” While this neat pattern can be seen in Table 10 for their NPE data, it does not generalize to any other variety.

Finally, consider the significance of the co-occurrence of *-z-dem*, a middle-ranked variable significant for the Sistren data and the joint analysis, but not the bimodal Veeton data-set on its own (Table 6). Does this support the local disambiguation hypothesis, on the reasoning that *-z* is less likely to occur in NPs with *-dem* because of a tendency to avoid redundancy, a tendency for distinct and competing plural markers not to cluster together?

It was noted above that the presence of *-dem*, infrequent though it is, has a discouraging effect on *-z* affixation. The reverse is not however the case: the absence of *-dem* is a nearly neutral factor, and cannot be said to noticeably promote *-z* marking. The tendency to avoid redundancy, then, is not accompanied by any pressure to ensure that number is marked at all. In fact, in a converse analysis of *-dem* marking performed on the same database, in which *-z* is included as an explanatory variable, the variation is best modelled when the *-z* factor group is discarded.

Moreover, other information suggests that redundancy is not stigmatized by JP speakers. An inspection of the individual marking data on which the subgroups in Table 5 were based gives the initially surprising result that as one progresses up the continuum – i.e., as marking rates for *-z* rise – the rate of redundancy with *-z-dem* increases consistently and dramatically. (Of course one must exclude the four Veeton speakers with the highest *-z* marking but no use of *-dem*.)

The fact is that, until the acrolect is approached and *-dem* begins to be shunned, higher mesolectal speakers use more *-z* than low, across all contexts, and are thus more likely to use it with *-dem*. They have more complete access to the English marking system; they are more likely to combine elements of English with JP – this is in fact the definition of what it is to be a mesolectal speaker (Patrick 1999; they do so of course according to principles, i.e. exhibiting patterns of inherent variation, and not by random dialect mixing or codeswitching). They have greater access to a system – Standard Jamaican English – that is redundant in a principled fashion, so that redundant marking becomes a (non-categorical) habit, and is extended in these instances to *-dem*. To summarize the situation:

- (31) Basilectal JP speakers do not avoid redundancy, rather they possess less formal equipment and experience less sociolinguistic pressure to provide it.
- (32) Mesolectal speakers perhaps positively embrace redundancy as a distinctive principle of the mesolect, and an additional method of incorporating socially positively-valued English-like forms and grammatical principles.

This suggests there may be a place for counter-functional explanations after all.

It remains to ask whether the speakers at both ends of the Creole continuum examined here operate according to the same constraints, despite differences in overall marking rate, orientation to redundancy, and use of *-dem*. To test this, the sample was divided into three groups – 7 speakers who inflected *-z* 40% of the time or less, 7 who did so 60% or more, and 6 intermediate. The low and high groups were tested for the same arrangement of features analyzed in Table 6. Except for some minor fluctuation of the position of bare nouns, results showed that the two sets of speakers behaved the same for all the linguistic explanatory factor groups, even down to the order of significance.²³

Although only the alternation of *-z* and zero has been examined here, results are sufficiently clear to dispel the myth that covariation of different forms and their distinctive grammars neatly characterizes and separates the Creole mesolect from the basilect. The conclusion is clear: the same grammar for number marking with *-z* applies up and down the JP continuum. This involves inherent variation, with multiple principles (lexical semantic, syntactic, counter-functional, and phonological), simultaneously influencing variable choice among a set of forms which have different sociolinguistic values. Number-marking with *-z* is frequent and robust in JP: it belongs to the Creole grammar and does not constitute random borrowing from English. It operates according to a system that is markedly different from the redundant agreement of English, yet consistent across a wide spectrum of speakers.

As with other mesolectal features (e.g. past-marking with *-ed*, Patrick 1999) incorporated during centuries of contact with and pressure from both vernacular and standard Englishes, the near-total absence of hyper-correction with *-z* suggests a lack of grammatical confusion on the part of speakers, stemming perhaps from a confidence in the distinctiveness and systematicity of their own Creole grammar. That confidence is fully borne out here.

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Notes

- ¹ This article returns to data examined separately in two unpublished papers (Patrick, Carranza & Kendall 1993; Patrick 1994) with new and unified analyses. The present results supersede reports of those earlier analyses in Patrick (2003, 2004, 2007, fc.). I am especially indebted to fellow Pluralists John Singler and John Rickford for sharing their ideas and providing helpful criticisms, both of the original conference papers and in informal discussion over the past four years. Thanks are also due to Isolda Carranza, Shari Kendall and Galey Modan for contributing to my understanding of this problem, and undertaking the work of data preparation and analysis for the 1993 paper. I take full responsibility for any

errors or flaws. Finally, the women of Sistren (Sistren 1986) and the speakers of Veeton (described in Patrick 1999) provided not only rich and knotty data, and reflections on their own language use, but accounts of life in post-independence Jamaica which continue to prove profound and inspiring to me and my students.

² VLE is a creolized variety which belongs to the Liberian English continuum, but is distinct from other basilectal varieties such as Kru Pidgin English (KPE, Singler 1988), or the non-Creole Liberian Settler English that Singler calls “a modern descendant of 19th century [AAE]” (LSE, 1989:50). Rickford (2006 and elsewhere) refers to VLE as “Non-Settler Liberian English” in order to clarify its relationship to other Diaspora varieties, which has been sometimes mistaken in the literature. The 28% figure is for *-z* and *-dem* combined.

³ Patrick et al. (1993) and Patrick (1994) first empirically examined this issue.

⁴ Singler’s (1989, 2007) feature analysis of the Mufwene system has proved helpful in elaborating the present scheme, and I gratefully acknowledge his assistance.

⁵ Poplack & Tagliamonte (1994:236) imply that they have been systematically discarded.

⁶ This is the expected effect for varieties that allow syllable-final consonant clusters, as mesolectal JP does (Patrick 1991). However, not all AtECs do: Kru Pidgin English thus shows a different constraint hierarchy (Singler 1988).

⁷ This is not to take standard English as the arbiter of JP, but merely to acknowledge that a great deal more is known about the former, and such knowledge needs to be tested against JP data. Some NPs are known to behave differently in the two languages (Bailey 1966, Patrick 2004).

⁸ E.g. one involved co-occurrence of *-dem* between the plural *-z* and the following sibilant at the start of the next word, so that there was no possibility for confusion. See note 15.

⁹ I have met members of Sistren on several occasions, and was assisted by two during the 1989-90 fieldwork for Patrick (1999). No-one who has seen them perform could be less than fully confident of their authenticity as exemplars of the JP vernacular.

¹⁰ This statistic is a measure of the model’s goodness of fit to the input data. A joint Varbrul run including both data sets in full showed a chi-squared per cell value of

1.17. Young and Bayley (1996) recommend a level of 1.5 as acceptable; my practice is to aim for 1.0.

- ¹¹ This is not to exclude the utterances containing instances of *-dem* – merely to discard the fact of co-occurrence with *-z* as a global explanation for the patterning of the latter.
- ¹² Except currency. The rationale for exclusion of measure words is not their semantic nature, but rather their near-categorical behavior; but currency nouns were only mildly disfavoring to *-z*, at 40.4% marking (44/109). Hence I have merged them with the inanimate nouns, which they resemble both semantically and in marking rate (44.6%).
- ¹³ In the combined analysis, it is only necessary to exclude the frequent and measure words while analyzing the contribution of the factor of semantic category; elsewhere, these tokens are retained. Overall marking rate in the former case is depressed to 44.4% (986/2,220).
- ¹⁴ A factor weight of 0.5 is neutral, with neither favoring nor disfavoring effect.
- ¹⁵ In JP, singular proximal *dis* and distal *dat* contrast with plural *dem* (Bailey 1966, Patrick 2004).
- ¹⁶ Where both *-z* and *-dem* occur following a noun, the *-dem* is discounted in determining following segment, as its first segment is invariant. 28 such instances occur in the joint data-set; 11 have a following non-sibilant consonant, so would have received the same coding in any case.
- ¹⁷ In Singler's (1991) VLE data, vowels at first appear to disfavor *-z* marking along with non-sibilant consonants (Table 36.2). It later becomes clear that this is due to distortion introduced by the presence of irregular nouns, and the very strong preference of child-learners of VLE for marking both these and sibilant-final nouns; when both are removed from the data (Table 36.10), vowels favor marking at rates very similar to LSE and ESE. These are represented in Figure 4 as VLE1 and VLE2, respectively.
- ¹⁸ It is not possible to make any comparisons to NPE here. Final segment proved not significant in that variety, both in the original article (Tagliamonte, Poplack & Eze 1997) and the summary later version (Poplack, Tagliamonte & Eze 2000), and the authors chose not to give factor weights. In fact, they appear not to have examined final sibilants at all (1997: Tables 6, 7 and 8 merely oppose non-sibilant

consonants to vowels). No explanation for this decision has been found. Comparisons between the Nigerian and Liberian data could have been fruitful.

- ¹⁹ Washington DC AAVE speakers (Kessler 1972:234) appeared to show a similar pattern, but the rudimentary percentage analysis gave less certainty concerning results. Following consonant formed part of the analysis for LSE and VLE, but proved not significant.
- ²⁰ It might be revealing to revisit the Liberian data for animacy, contrasting LSE – the Diaspora variety closely linked to AAE and Gullah (Singler 1989) – with non-Settler varieties which have undergone more intensive contact processes and maintain close contact with African substrate languages.
- ²¹ The 1991 data for VLE (Table 36.2, p549) combine plural marking with *-z* and *-den*; in the 2007 paper results for the two markers are combined in some tables for some speaker groups, and not others.
- ²² The analyses differ in terms of the makeup of the semantic factor group, but not the “NP constituency” one analysed here, except for the Partitive subset, which they seem to find puzzling and leave out of Table 3.5 (2000: 92-94). It is unclear how these tokens are redistributed, but token numbers in the Definite, Demonstrative and Non-numeric Quantifier categories change by 32, 88 and 105 tokens, respectively, while totals remain nearly identical.
- ²³ Bare nouns change very little, from being .05 above the neutral mark for Low speakers, to .04 below it for High. Final segment was not significant for the High group; it was for the Low, but the factor weights were very similar.

Grammar in time: the non-restrictive ‘which’-clause as an interactional resource

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ABSTRACT

This paper examines the interactional implementation of the non-restrictive relative ‘which’-clause. In interaction this clause is commonly produced as an increment: that is, after a main clause has come to prosodic completion. Such usage in an initial data set is found to satisfy two potentially conflicting interactional constraints: the principles of minimisation and of progressivity. Extended examination of the placement of this increment reveals the extent to which it is implicated in the interactional projects of alignment and disalignment.

1. Introduction

This article examines the use of the non-restrictive relative *which*-clause in interaction.¹ In its traditional citation form this clause is represented prosodically as continuing from a main clause; so, for example, Huddleston and Pullum (2002:1035) give the example:

Pat's afraid of snakes, which doesn't surprise me at all.

The comma after 'snakes' suggests that in its spoken form the relative clause follows prosodically from the main clause; a terminal intonation contour is produced only at the end of the sentence, on 'all'.

Examination of naturally-occurring data, however, suggests that this paradigm is not necessarily instantiated in interaction. Tao and McCarthy's (2001) description of the grammar of non-restrictive relative (NRRC) constructions in spoken English notes their common occurrence as what they call turn extensions: extensions to a turn after the prosodic completion of the main clause. Investigation of a corpus of naturally-occurring interaction for the current study suggests that NRRC constructions as turn extensions were over three times more prevalent than in the traditional citation form;² they include instances such as the following:³

1. Holt, May 88:1:5:10
Robbie and Lesley are supply teachers at the same school, and
are comparing notes on the pupils they both teach:

1 Les: I feel very sorry f'that little boy becuz uh- I thin:k
2 e-life must be diff↑ic^hult for im at home,
3 (0.4)

¹ Huddleston and Pullum (2002:1035) call these clauses *supplementary* relatives; they are also known as *appositive relatives*. The focus on non-restrictive relative constructions distinguishes the structures examined here from restrictive relatives uniquely identifying a subject, as in the construction 'the vase which I broke yesterday', where the relative clause is integrated into the structure of the main clause. See Arnold (2007) for a recent linguistic overview.

² The collection as it stands consists of 126 instances of non-restrictive relative clauses in interaction; only 30 of those are produced as the citation form would suggest.

³ See the appendix for transcription conventions.

4 Rob: D'you know I think he copes with it though,
5 (0.2)
6 Les: [Yes.
7 Rob: [()-
8 Les: [Yes.
9 Rob: [He- when he when I fi:rst met him when he wz ↓very
10 little. ↓ (0.4) uh::m (0.3) ee↓Yes. An' he used to hold
11 my ha:nd.
12 (0.2)
13 Rob:→ Which wz (.) always sort'v (w(h)arm) in a
14 chi[:ld (t'me)
15 Les: [.hhhhh Yes that's ri:ght. 'N he'll cuddle up to you,
16 h[uh! even no:w Ye:[s
17 Rob: [(Ye:s it's) [Ye:s it's lovely.
18 Les: Hm..
19 Rob: So: um:

2. NB:II:2:R:4

Emma is asking Nancy about a course she has just taken; Mr.
Bradley is Nancy's class teacher:

1 Emma: Didju learn a lo:t'n cla[:ss;
2 Nan: [There were:
3 (.)
4 Nan: Well ah'll tellyuh one thing that I do feel I'd learn'n I
5 told Mister Bradley (0.2) too: h-uh: (.) afterwards becuz
6 he: is tryin:g to: .hhhhh- .hh He 'az another year tuh go
7 et Or'nge Coa:st,h enthen he wants to establish: uh:n (.)
8 some thing that w'be co:mp'rable: to Ess:erleen:.
9 (.)
10 → Which is the: (.) uhm (.) .hhhhh thing that they have
11 in th'Big Su:rjh
12 (.)
13 Nan: Yihknow fer all a'this: uh [inten]sive thou:ght busin[ess;
14 Emma: [mm:.] [mm]
15 hm

3. C:30:1.

Mary is preparing dinner, talking to Vanessa and Adam (daughter & son-in-law), who have come to stay. David is a neighbour:

- 1Mary [David (.) came in last night and I was: (0.4) ↑is this
2 mine?
3 (.)
4Van Yes.
5Mary >Okay.< .h I was: uhm: (0.2) it was >quarter past >>twenty<<
6 past< eight. (0.2) He said EVERY TIME I COME HERE YOU'RE
7 EATING.
8 (0.4)
9Mary→ [fWhich is true.f Whatever time he picks, we're=
10Van [(audible expiration) hh
11 =always eating.
12 (0.3)
13Adam Heh heh.
14 (0.2)
15Mary [And I was [late last
16Van [Well- [(they- they- they pick-)
17Adam [(Maybe) you sit at table longer than [most people.
18Mary [Mm?
19Adam [Maybe you sit at the table- a lot of people (----you do.)
20Mary [Probably. But I was late last night [anyway.

In each of these, the speaker comes to a prosodic completion after the main clause, indicating the possible completion of the turn, at (1) 'An' he used to hold my hand' (lls.10-11), in (2) '...something that would be comparable to Esserleen', (l.8) and in (3) 'EVERY TIME I COME HERE YOU'RE EATING' (lls.6-7), respectively. The subsequent relative clause (at the arrowed turn) is produced – in each of these after a slight pause – as a continuation of the prior turn (Tao and McCarthy's 'turn extensions'). What follows uses the three exemplars above to examine, in the first instance, the interactional motivations for producing the relative clause as a 'rebeginning' in this way. It then proceeds to investigate a wider collection of data; while the exemplars above all occur after a pause, there is a range of sequential contexts in which such rebeginnings are produced. Examining that range of contexts will be necessary to identify the interactional uses to which such structures are put.

2. The non-restrictive ‘which’-clause as an increment

In each of the cases above, as we have seen, the speaker of the *which*-clause initially produces a main clause as part of a turn-constructive unit (TCU), bringing a turn to a possible completion – not only intonationally (see Walker 2004:152 for a description of the phonetic features of finality), but grammatically and also pragmatically, implementing a recognisably complete action. In each case, too, we see that the recipient is given an opportunity to respond but does not, and a gap ensues. Instead of starting up with a recognisably ‘new’ beginning, the speaker opts to syntactically continue the turn with what Schegloff (1996, 2001) has called an *increment*, which in effect recompletes it (see Walker, 2004, for a detailed analysis of the phonetic properties of increments). The whole range of possible increments, lexical, phrasal and clausal, are examined in Schegloff (2001), who notes of increments in general that:

At times, interactional exigencies burst through the self-imposed constraints of language. The constraint [discussed here] is the constraint of having projected and realised an ending to one’s turn, only to find there that something further needs doing, and now. The post-completion position which increments occupy is a resource for such exigencies – whatever the participants figure them to be (2001:45).

In the case of the increments being examined here, the exigencies to which Schegloff refers relate to the actions prosecuted by the *which*-clauses. As will be seen from exemplars (1) – (3), such clauses implement one of two possible actions: *elaborations*, such as in (2): ‘which is the uhm thing that they have in the Big Sur’, where, in grammatical terms, the relative clause elaborates on an aspect of the main clause; and *assessments*, such as in (1), ‘which wz always sort of warm in a child (to me)’ and (3), ‘which is true’, where the relative clause serves to assess or evaluate an aspect of that expressed in the main clause. The interactional implications are

profound: while elaborations pursue a display of intersubjective understanding, as in (2) where the referent 'Esserleen' is at issue, assessments pursue a display of common stance, which is ultimately secured in (1) at 1.15. Non-restrictive relative *which*-clauses are thus, in their interactional instantiation, implicated in these two fundamental activities.

3. The pursuit of intersubjectivity and a common stance

The use of the *which*-increment, as it will henceforth be called, in the three extracts above may thus be seen as an attempt to remedy a displayed lack of either intersubjectivity or common stance. As we have seen, in each of cases (1) – (3), the recipient withholds a response after a turn has come to possible completion, and it is to this lack of response that the *which*-increment, appended to what has now become a host TCU (Schegloff, 1996, 2001; Ford et al. 2002), may be seen to be produced: an increment that in (1) and (3) makes clear the speaker's stance towards that which she is reporting, and in (2) attempts to clarify (with the increment, as it happens, unsuccessfully) a potentially problematic referent. The central question here is why the *which*-clause is produced as an increment at all: that is, why, in grammatical terms, the main clause is brought to prosodic (as well as grammatical, and pragmatic) completion, when quite clearly a relative clause produced as a prosodic continuation would have maximised clarity of reference and stance in the first instance.

One answer, relating to reference, may be provided in the work of Schegloff and Sacks (1979) on reference to persons, which, as Heritage (2007), shows, applies also to places. Schegloff and Sacks observe an overriding preference in interaction for recognitional reference, and, moreover, a preference for *minimised* reference – preferences which in English are concurrently satisfied by the use of proper names. So in (2) we can see the speaker demonstrating these preferences with the use of the minimised recognitional reference 'Esserleen', the prolonged final segment, or sound stretch, a hearable invitation for the recipient to respond upon its completion. The speaker's subsequent *which*-increment serves to elaborate the referent (by dint, as it turns out, of another recognitional reference) in an attempt to secure referential

common ground following a lack of an understanding claim from the recipient. The extract below shows a similar elaboration (at 1.8) by the speaker of a reference that gets no immediate uptake:

4. Kitzinger and Mandelbaum, 2004:33
Dan's sister is pregnant; Cath's line 2 one of the reactions she has given to the news:

1Dan Well the thing is though because (.)
2Cath WHOWhh!!
3Dan with the P-C-O: (.) uhm she was told that she would
4 only have had ten percent chance'v (.) conceiving
5 on her o:wn. without (.) actually us[ing I-V-F;]
6Cath [What- what-] What-
7 what was the P-C-O h.
8Dan→ Polycystic ovarie:s. Uhm [which means-]
9Cath [Oh right yeah] yeah.

Given the recipient's avowed trouble (in lls. 6 and 7) with the prior reference 'PCO', Dan's attempt to clarify with 'Polycystic ovaries' (1.8) is itself vulnerable to repair initiation. This is evidenced, it would seem, by the initial lack of recognition, despite the sound stretch at prosodic completion, and the 'uhm' – both of which provide for Cath to display recognition. The *which*-increment is thus launched to supply the elaboration – one which in the event is abandoned, the launch itself coinciding with a belated claim to recognition. Both the referents 'PCO' and 'polycystic ovaries', then, are produced by their speaker as, in the first place, recognitional. It is only upon the recipient's avowed or apparent trouble in securing the reference that elaboration is deemed by the speaker to be in order. In this light we can see the interactional motivations for such clauses to be produced as increments; for such examples show how preferences for recognitional reference and minimisation override security of reference *per se*. Indeed, the preference for assumptive understanding (discussed by Heritage, 2007) may be such that a speaker may work to minimise the hearably instructional character of an elaboration. In the following, a doctor gives a diagnosis to a caller, immediately elaborating on the perceived problematic term 'gastroenteritis', but deleting the launch of the elaboration, 'which is':

preconditions for, and achievements of, organized social life' (Schegloff, 1992: 1296) and its achievement thus a *sine qua non* of interaction, a common stance clearly provides the most facilitative sequential environment for the accomplishment of actions – a fact indeed itself evidenced by the use of *which*-increments as assessments. The minimisation constraint thus similarly provides an interactional motivation for main clauses being brought to prosodic completion in environments when assessments are potentially relevant. So in extract (1), 'an' he used to hold my hand' is produced as part of a more extended assessment sequence where the two speakers are comparing pupils they both teach:

1. Holt, May 88:1:5:10 (more extended version of (1), earlier):

- 1 Les: .hhh I can't stick that bo:y,
 2 (0.5)
 3 Rob: What Christoph[er,
 4 Les: [.tlk.hhh Christopher.
 5 (.)
 6 Rob: Uh::[(he-)
 7 Les: [Motley.
 8 (.)
 9 Rob: He's a little bit too[↑]::.
 10 Les: Oh: he:'s u-he t'me he's uh: the typical public schoo:l
 11 Les: p[ushy type
 12 (): [()
 13 Rob: I love iz bro[↓]ther.
 14 Les: Oh:[he's swee:t.]
 15 Rob: [(with him),
 16 Les: I feel very sorry f'that little boy becuz uh- I thin:k
 17 e-life must be diff[↑]icult for im at home,
 18 (0.4)
 19 Rob: D'you know I think he copes with it though,
 20 (0.2)
 21 Les: [Yes.
 22 Rob: [()-
 23 Les: [Yes.
 24 Rob: [He- when he when I fi:rst met him when he wz [↓]very
 25 little.[↓] (0.4) uh::m (0.3) ee[↓]Yes. An' he used to hold

26 my ha:nd.
 27 (0.2)
 28 Rob:→Which wz (.) always sort'v (w(h)arm) in a
 29 chi[:ld (t'me)
 30 Les: [.hhhhh Yes that's ri:ght. 'N he'll cuddle up to you,
 31 h[uh! even no:w Ye:[s
 32 Rob: [(Ye:s it's) [Ye:s it's lovely.
 33 Les: Hm:.
 34 Rob: So: um:

The speakers have produced a number of assessments in their discussions of their pupils, at lls. 1, 9 (partially), 10-11, 13, 14, 16 and 19, with Lesley introducing a competitive element to this assessment by producing epistemic upgrades (Heritage and Raymond, 2005) at lls. 10 and 14. Lesley's assessment at lls. 16 and 17 is thereupon met with a measure of resistance from Robbie at lls. 18 and 19, with her assessment at 1.19 apparently, by dint of the continuative intonation, prefatory to an upcoming elaboration of some kind – one with which Lesley at lls. 21 and 23 shows herself to be oriented to. What Robbie produces at lls. 24 and 25, 'when I first met him', is hearable as a story preface; it is in this environment that she produces what is hearably a continuation of the telling: 'An' he used to hold my hand'. The sound stretch and then the prosodic completion on 'ha:nd' and the subsequent pause at 1.27, noted earlier, are, in their clear invitations to uptake, indicative of the minimisation principle operating on invitations to assess as well as on reference. Upon Lesley's continuing to orient to the story and thus withholding, Robbie's production of the *which*-increment is further evidence of a pursuit of concurrence from Lesley: a laugh token on the assessment item 'w(h)arm', the sound stretch on 'chi:ld' and the further extension of the turn with the modulation of the strength of the assessment. Lesley's subsequent agreement at 1.30, plus her further instantiation of Robbie's assessment, 'N he'll cuddle up to you' constitutes an enthusiastic embrace of a stance held in common.

The principle of minimisation on an assessable is similarly seen to be at work in (3), where lls. 6-7 fail to get uptake, despite the turn's clear design as a punchline: the reported speech (see Drew, 1998 and Holt, 2000 on the use of reported speech as the climax of stories), the raised volume relative to the prior talk, and the laugh token in

‘eating’, constituting an invitation to come in. It is only on the failure of the punchline to elicit a response that the speaker produces, with a smile, the *which*-increment, launching an assessment clarifying her stance towards what has been reported. Given that what is reported is patently a tease, it of course sets the recipients a dilemma, embodied in the withholding silence at 1.8: to laugh, notwithstanding the inviting laughter, would align with the tease and against the teller. The *which*-increment, in underwriting its speaker’s endorsement of that tease, pursues the uptake missing at the punchline.

The pursuit of a withheld response is equally evident in an environment of resistance such as the following:

6. T8:5.
Talk turns to the wedding anniversary party of a family friend.
Vanessa is Mary’s twenty-something-year-old daughter; she is
wearing a summer dress:
- 1 Mary Listen, I don’t know how dressy this is going to be
2 tomorrow. (0.4) I don’t think you want to wear that dress do
3 you?
4 (1.1)
5 Van This dress?
6 Mary Mm.
7 (1.2)
8 Van I could, I mean if its bla:zingly hot, I might wear this
9 dress.
10 (0.2)
11 Van Or my purple dress.
12 (0.8)
13 Van→ Which is pre[tty].
14 Mary [Mmm.

The first question following initiation of the topic invites a ‘no’ response, but itself gets resisted, first by a next-turn repair initiator at 1.5 which is a possible harbinger of disagreement (Schegloff, 2007:102), and then at 1.8 by an explicit formulation and

account. When that fails to get uptake, Vanessa produces a continuation⁵ of the prior turn in the form of an alternative: ‘or my purple dress’. This continuation itself failing to get uptake, Vanessa adds to it the assessment in the form of a *which*-increment: an assessment which builds a case to support her own stance.

We see again starkly here the minimisation constraint at work, in the domain of assessables as clearly as that of reference. But the increments we have seen so far also reveal another preference in operation, and a countervailing one at that: a preference for progressivity in interaction. Schegloff (2007b) proposes that a preference for progressivity is, alongside that for minimisation, another organisation of practice which has a claim to universal relevance. He observes that a preference for progressivity operates at the level of both turn (1979) and sequence (2007a; see also Stivers and Robinson, 2006). ‘Or my purple dress’ (l.11) and ‘Which is pretty’ (l.13) in extract (6) show us in their different ways how, when the principle of minimisation fails to deliver in terms of uptake, the principle of progressivity is satisfied by dint of continuations proposing that the speaker had not, in fact, finished. The continuation by means of the coordinating ‘or’ clause offers an alternative to the speaker’s original position in the face of resistance: the continuation with the subordinating *which*-clause, syntactically parasitic on its host, is designed to strengthen the speaker’s original position in the face of resistance. Huddleston and Pullum’s observations on relative clauses in general illuminate the structural relationship between *which*-increments and their hosts: ‘Relative clauses are so called because they are related by their form to an antecedent. They contain within their structure *an anaphoric element* whose interpretation is determined by the antecedent’ (2002:1034; italics added). It is this anaphoric element which serves to recomplete the turn. Schegloff notes, in explicating his use of the term ‘possible completion’:

One import of the construction of turns and TCUs in conversation around *possible* completion is that, if their sequelae are not felicitous (e.g., if they do not engender appropriate talk next, or *any* talk next), subsequent conduct

⁵ ‘Continuation’ is the generic term for turn continuations; the term *increment* here is preserved for those structures which are syntactically parasitic on the prior TCU. See Schegloff, 1995 for a detailed examination of such a continuation in a single episode.

by the same speaker can treat them to have *not* been completions after all. One key way this is done is by producing further talk as an organic continuation of the talk which preceded, as an increment of talk within the *same* TCU, which is thereby presented as having not been complete at all, and therefore not ready to engender sequelae or responses, and therefore not a failure in having not done so (1996:118).

In this respect, the *which*-increments we have seen so far constitute repairs of a sequence's progressivity, such as discussed by Schegloff (1997:512). Indeed, they are such a clear marker of progressivity that they may be used as a continuation even when there is nothing ultimately to continue with; in the following, a radio news journalist finds himself without back-up when the wrong tape is played:

7. 'Today' programme, BBC Radio 4. JN=James Naughtie; JH=John Humphrys, presenters. JN has cued in tape for the journalist Robert Orchard to present a feature called 'Yesterday in Parliament' but the wrong tape has played

1 JN Hm:. That was the wrong tape. (S'hangon) That wasn't Robert
 2 Orchard.
 3 (1.2)
 4 JH So::, were we going to try and get Robert Orchard. .h LET'S
 5 SEE! This is exciting. (0.4) °No°, no Robert Orc[hard.
 6 JN [Sing a song.
 7 (0.3)
 8 JH Right. .h Well, in that case we can't go to our newspaper
 9 review in Johannesburg either because he's not there,
 10 >we have a problem with that< .h indeed we seem t- .h we
 11 seem to have a problem with just about everything else; so
 12 that's uh what we call in the trade a: <↑standby>. .HHH
 13→ E::h, (0.2) w::hi:ch i::s: u:::h::: bo- bi-::: (0.2) we
 14 are::
 15 JN Hang on.
 16 JH We:: are:: (.) sorry, this is terribly confusing, but I

17 don't think either of us can find the bits that we are
 18 supposed to [be (---)]
 19 JN [Here we are look, I'll tell you what we're
 20 gonna do.
 21 (0.2)
 22 JN Uhm, because we can not (.) uh go to Parliament. .hh We're
 23 going to go: .hh to: (.) a new ↑building! (.) £Indeed a
 24 building which may never be built.£

The *which*-increment here – projecting an elaboration, or assessment, neither of which is forthcoming – is deployed here as a token of sheer progressivity. In thus providing a remedy for failures of progressivity, the *which*-increments we have seen so far make it possible to satisfy the preference for minimisation in interaction. They thus allow for the satisfaction of potentially conflicting interactional constraints.

4. Alignment, disalignment and ‘which’-increment positions

Having examined an initial set of *which*-increments occupying the same sequential position – after a pause or gap – we now have a basis from which to explore the range of possible positions in which such increments can be produced.

It is clear that, in their pursuit of either intersubjectivity or a common stance, the *which*-increments we have seen are produced in attempts to gain alignment from the recipient. Alignment we define here as engaging in action which facilitates the other's project; so on being told a story one can align as story recipient or disalign as a heckler (as, for example, happens at the beginning of the story examined by Sacks, 1974).

Extracts (1) to (3) show *which*-increments produced in the wake of silence and thus incipient disalignment, and as we have already seen, as a remedy for lack of progressivity. It soon becomes evident, however, that such resources are not solely deployed to remedy a lack of progressivity. Schegloff (2001) identifies a range of positions that increments can occupy relative to the host TCU, and, as a subset of

these, the *which*-increments examined here naturally occupy those same positions. What becomes clear is that what is being done interactionally by means of these increments varies with position. Thus *which*-increments may be produced apparently to forestall the failure to respond that occasions what Schegloff calls ‘post-gap’ increments (2001:32) that we see in (1) – (3); these are ‘next-beat’ increments (Schegloff 2001: 32) – that is, increments begun by speakers in the next prosodic beat following the prior possible completion of a TCU on either a falling, or (as (10) here shows), rising intonation. As (8) and (10) here show, these may even be produced before the next beat, with a so-called ‘left push’:

8. Holt, May 88:1:5:3

Robbie and Lesley are comparing notes on colleagues:

- 1 Rob: Well I wonder you know I don't always know what to
 2 ma:ke of mih- Cynthia Pelch, what do you:. I don't
 3 kno[:w.
- 4 Les: [.hh No, I think she- (.)↑aa- well. b-di-Quite
 5 honehstly .hhh I think she c'n be ru:de. An', an' I
 6 think Freddie Masters can too[:,
- 7 Rob: [°Oh:, I kno:w.° I mean I
 8 haven't run up against them but I do:n't find th'm
 9 overhelpful.=
- 10 Les: =.hhh No, (.) nuh- (.) no help at all fr'm Freddie
 11 Masters an a:n' sometimes I've had f- almost to be:g.
 12 .h[hh[for things.
- 13 Rob: [Ye[s
- 14 Rob: W'l I had a quick word with uh::m what °m oh° Netty
 15 Daltry. She's nice cuz I'm helping her- ↓well. .hhh
 16 Today wz the eh:m she wz practising in the ha:ll with
 17 the three classe[s.
- 18 Les: [.h Ye[s.
- 19 Rob: [An' Freddie Masters said well she
 20 wz doing stock ↓taki:ng an:d and em (0.4) she wouldn't
 21 → be in: but she'd take assembly.>Which is fair enough,=
 22 Les: =Yes.=
- 23 Rob: =So I went in'n obviously ↑no:b'dy wz prepared to: ↓help.

9. C33:10:21, Matthew, Colin, Harriet. Matthew talks about going round to dinner with a wine snob:

1 M What's uh- what's telling is that we went round and we took
 2 → a bottle of the <cheapest red wine from: the Co-op>. Which
 3 is oka:y, u:h*:* >I mean< t'say that it's been recommended
 4 by Malcolm Gluck in the Guardian. But I- I served this up to
 5 her>we took two: bottles of red wine.< They opened the
 6 cheapest first, which was embarrassing, (.) .h and then: (.)
 7 Daisy had this and she said AH:: this is fantastic st(h)uff
 8 [an' it w's- it w's t(h)wo p(h)ounds eigh(h)ty a=
 9 H [R(h)hap(h)sodis(h)ing
 10 M b(h)ott[(h)le.
 11 C [Bloody hell.
 12 M A(h)nd s[(h)o:: >thought< (*strangled*) w::e::ll, you=
 13 H [Heh heh
 14 M =know, mm:: not so discerning really.

10. NB:II:2:R:7

Nancy is telling Emma about a class teacher, Mr. Bradley (see extract (2), here 'He'):

1 Nan: [He's one thous'n percent
 2 against dru:gs free love: en innythin:g (.) thet shows
 3 irresponsibility. [.hhhhh]
 4 Emma: [°Mm hm,°]
 5 (.)
 6 Nan: A:nd uhm (0.2) all he wz trying t'do wz develop a
 7 ph'losophy of people: (.) being more HOn.es:t.h=
 8 Emma: [°Mm: h[m:°
 9 Nan: [.hhhh [in a suh*ci*ety thet is so hypo[↑]critical.=
 10 Emma: =Mm[hm:°]
 11 Nan: [.hhh]An' he wasn't a:dvuhcating thet (0.4) yihknow the
 12 → hippie movement; >Which he's very much agai:nst,=
 13 Emma: =°Mm[hm°]
 14 Nan: [Ah h]e feels people haftuh be responsible'n he taught
 15 this throughout th'whole class=

In all three cases here, the speaker uses the *which*-increment to adjust their stance with an assessment, making clear in (8) and (9) their own, and in (10) someone else's position. This is produced just before the turn is released for response. In (8) and (10) the recipient produces an immediate, latched acknowledgment, despite the recompleted turn not being brought to prosodic completion; in (9) Matthew's following 'u:h*::*', 'I mean t'say' and clarification are clearly designed to pursue such acknowledgment. These next-beat increments are thus designed as last-moment adjustments to the speaker's stance or position before the recipient is due to respond. Unlike the post-gap increments in (1) to (3), there is no failure of progressivity to remedy. However, both these next-beat and post-gap increments are similar in one respect: they are clearly designed to pursue the recipient's alignment, whether in terms of intersubjectivity and common referential ground, such as in (2) where it is necessary to secure the referent 'Esserleen', or in terms of stance or position. These may themselves secure acknowledgment, as in (6), (8) and (10), or full-bodied affiliation as in (1); alternatively, they may form the first element of a more extended pursuit, as in (2) and (3) (which eventually secure acknowledgement) and (9).

It is, however, by no means the case that all such increments are produced in pursuit of alignment. Criterial here is the issue of where the increment is positioned relative to the recipient's uptake of the host TCU. In the case of the post-gap and next-beat increments, of course, the increment is produced before the recipient's uptake (and hence in pursuit of it). But *which*-increments may also be produced after a recipient has launched a response:

11. Holt: 1:5:1

- 1 Nan: .kh We:ll, (0.8) You said phone Mon:dee e:veni:ng?=
 2 Les: Yes if you want anyth[ing].
 3 Nan:→ [Which I'm doing?
 4 Les: Ye:s,=
 5 Nan: =No:w I want t'morro:w (0.3) two sco:nes

12. Heritage I:6

1 Ile: What is your telee[phone]nummuh?]

2 MrsH: [Well]we're n]ot on the phone

3 y[et

4 Ile: [Ah I see:.h

5 MrsH: [Uh:m[:

6 Ile: [Yes.[Ye[s.

7 MrsH: [So we have a call box in one of the

8 cottages.=

9 Ile: =Ah [yes

10 MrsH:→ [Which I'm using at [th'↑meoment.

11 Ile: [Mm:

12 Ile: Yup, mm:, t[h Well ↑that's the best thing then=

13 MrsH: [()]-

14 Ile: =You'll phone abou:t uhm hh ughm: phone arou:nd lunch time.

13. C22

A=Adam; M=Mary

1 M [My father used to run everybody all round

2 ↑everywhere

3 (1)

4 A Well my grandmother expects it of my mother [so my mother=

5 M [Hm.

6 A = dri:ves from: one side of Oxford, .h (1) to pick up my

7 grandmothe:r,

8 (0.2)

9 M °Hm°.

10 A >she'll be late,< (.) she never's- she's never on

11 t(h)i::(h)me for anything (0.4) so (.) .h and she'll say

12 >>↑if you're gonna rush me I don't want go out<< (.) and

13 then she'll com&#x26;plain about not going out, so=

14 M =Oh yes, [well

15 A [This is one grandmother, my other grandmother was

16 completely different, she'd always be spot on fftime,

17 [>she'd=

18 M [°Hm°

19 A =probably been ready an [hou:r before you were due [to=

20 M [°Hm° [Hm

21 A arrive<ff,

22 (.)

23 A so people would turn up and then the- (0.2) she- (.) waits

24 an hou:r, you have to wait an hour till she gets dressed,

25 .hh (0.7) and then: (1) my mother has to [↑]take her

26 somewhere, (.) which is another journey, (0.3) and then

27 again take her back and then go ho:me, so it's: (.) (---)

28 fifty sixty miles of dr[iv]ing.

29 M [I think that the [gener-

30 A→ [Which has

31 sometimes exhausted my mother cos [she's- she's sixty:=

32 M [Yes.

33 (0.8)

34 A =plus, a:[nd (.) she often has to look after my ↓nephe:[ws,=

35 M [Mm. [Hm.

36 A =and (--us:), and she's going ou[:t, °and°

37 M [I [↑]think the generation

38 who: (1) feel they couldn't accept charity is probably (.)

39 about to die out completely.

40 A Yea:h,

It is clear in each case how the placement of the increment some way into the recipient's turn – in (11) and (13) by some way – serves positively to disalign: indeed, they sequentially delete the recipient's talk. In (11), Nan's continuation of her prior turn into Lesley's response to it makes out that Lesley interrupted her. When these *which*-increments are elaborations, designed to secure intersubjectivity, their placement after appropriate uptake, as in (11) and (12) constitutes the recipient as in need of such elaboration – in short, as slow on the uptake. In (11), Nan's increment serves to give the sense of an obligation dutifully met, whereas as Lesley's turn makes clear, it is Lesley who is doing the favour for Nan. The favour is disattended – and interactionally bulldozed – by the placement of Nan's increment (see Schegloff, 2002:302 for analysis of another case where a speaker turns themselves into an aggrieved, 'interrupted' party by reconfiguring a turn transfer to make of it a 'candidate interruption'). In (12), Mrs. H's announcement 'we're not on the phone yet, so we have a phone box in one of the cottages' gets a fitted response, but the increment produced in overlap with that response seeks to elaborate further. In (13) the increment is not an elaboration, but an assessment. Adam's telling regarding his mother comes to a possible completion with the upshot 'so it's (.) (---) fifty sixty

miles of driving'; Mary's launch of an assessment (and an apparently disattentive one, at that) at 1.29 is produced in overlap at the first indicator of possible completion, the pitch peak on 'driving'. Adam's *which*-increment, coming as it does some way into the launch of the turn, disattends Mary's launched assessment in favour of his own – one which continues the telling, so proposing that he had not, in fact, finished. In the event, Mary realigns as recipient at the end of the *which*-increment, subsequently relaunching her assessment at 1.37 – with which Adam in turn aligns.

In all three cases (11) – (13), then, the *which*-increments do the opposite of pursuing alignment by sheer dint of their placement. In bringing a turn to grammatical, prosodic and pragmatic completion, the speaker invites uptake; by subsequently producing a grammatical continuation after that uptake is launched, and so proposing that they have been interrupted, is to strongly disalign.

Whether or not *which*-increments are moves to align or disalign may thus be seen to be a function of positioning: in the three possible places we have examined so far – post-gap, next-beat and post-other-talk – we can see how it is their combined position and composition (Schegloff, 1993:121) that ultimately determines what they serve to do.

A last set of increments identified by Schegloff consists of those produced not by the speaker, but by the recipient of the host TCU, and in all other respects similar to the examples examined so far. Recipients choose to append to the prior speaker's talk a grammatical continuation which in effect recompletes their turn. In all of the following cases the *which*-increment is produced in next-beat position:

14. Heritage 0III-1-4.mov
Edgerton has asked after Donald's health; Donald has had
problems in his leg and foot

- 1 Don: I've bought myself a Volvo three four fi::ve.
- 2 Edg:→ Which is autom[atic.
- 3 Don: [automatic.
- 4 Edg: Yes.
- 5 Don:(→) Which is magnificent.

15. (From Schegloff, 2001: 40)
Pillet, Parent/teacher conference 3, 3:39-4:07
- 1 Prn .hhhh And um: he's- he's not disruptive [er-
2 Tch [Hm mmm.
3 Prn Okay.
4 Tch tch! No. I have a trou- cup- trouble with a couple other
5 ones, (.) but he's not the one, [.hhhh
6 Prn [I'm amazed.=
7 =I'm [relie::ved. Huh huh .hhhhh
8 Tch [except because He's ToTally improved. I mean he's=
9 Prn I'm re[lieved.
10 Tch [It's like he's matu::red, and kinda knows what
11 his [role ih-at least in cla:ss.=
12 Prn [Okay.
13 Prn =I think what it is is I think if he likes the teacher?
14 Tch Mmm.
15 Prn Then: he does ok(h)ay.
16 Tch Mhm.
17 Prn °An if he doesn't then- cause he is having problems other-
18 in other cla:sses. hih hih=
19 Tch→ =Which I he:ar.
20 Prn Ye[ah.
21 Tch [oft(h)en. S(h)o it's n(h)ot jus' hi:m, ut(h)
22 [heh heh heh heh
23 Prn [heh heh heh heh
16. 'Today' programme, BBC radio 4, 28.8.07 Interview with
Foreign Secretary, David Miliband, about continuing
presence of British soldiers in (the south of) Iraq.
JM=James Naughtie; DM=David Miliband.
- 1 DM ...and what's happened, j'st to fill out the point about the
2 South which (.) uh n- General <Keen> u-mentioned. Of the
3 four provinces in the South, three: have already been turned
4 over to Iraqi (.) uh control. [In Muthanna, In Di Q-
5 JN [Yes, and one of the go- one
6 of the governors was promptly assassinated.

7 DM→ uWhich is >very very serious<, but w- I think also
8 important is the response to that, because the Iraqi
9 security forces >[have=
10 JN [.hh
11 DM gone back in=now let me just finish the point (now) and then
12 you can come [back to the questions.< .h Three of the four=
13 JN [Okay.
14 DM =provinces in uh the southeastern part of Iraq have been
15 turned over, .h to the Iraqi se-curity forces, in Muthanna,
16 in Di Qhar, uh in Maysan. Those (.) Iraqi security forces
17 are performing with intelligence, and with bravery.<In the
18 fourth province, Basra, which is obviously very very .h uh
19 im-important, we've got uh processes under way for uh
20 provincial Iraqi control there as well, and so the British
21 (.) role changes, but it is a role that is [defined=
22 JN [.hh
23 DM =by the situation on the ground in Iraq and that's the right
24 way to do it, I think.=
25 JN =Well,...

In each of these extracts, the first speaker's turn makes a specific next relevant, but the recipient opts not to supply that next but instead to display that their own knowledge is more advanced than they have been given credit for. In (14) and (15), informings (at l.1 and l.17-18, respectively) are met not by information receipts but by displays of the recipient's knowledge. In (16), David Miliband, the British Foreign Secretary, has launched a telling, constructed to be positive, regarding provinces in the south of Iraq being handed over to Iraqi control. As he proceeds to list those provinces, he is intercepted by his interviewer who effectively squelches the positive gloss with the dismissive 'be-that-as-it-may' and subsequent challenge (itself a continuation) 'and one of the governors was promptly assassinated'. There is a clear imperative for the Foreign Secretary to avoid an information receipt; his use of the grammatical continuation serves to construct the point just made as familiar to him, while the assessment 'very very serious' resists the slick matter-of-factness of the prior turn.

In refusing to meet the prior turn with the uptake it is built to receive, and by choosing instead to grammatically continue that turn, the producer of the *which*-increment is

clearly disaligning. Indeed, in (14), we can see in Donald's subsequent turn, after he attempts to complete Edgerton's recompletion in 1.3, that he launches a recompletion of his own. His choice of the same recompleter both provides the assessment that might have been provided at 1.2 (and the strength of that assessment – 'magnificent' – is surely designed to be unambiguously positive, in contrast to Edgerton's blandly noncommittal 'automatic'), and is a means to deny his recipient the last word on the matter.

Given the disaligning character of such increments, it is perhaps unsurprising that they may be produced in contexts where turn opportunities are strictly allocated. In the following extracts from broadcast radio, one speaker is given the last word, providing no opportunity for comeback from the other. In the first of these, we see the last few seconds of a daily morning news programme before the sign-off and 'pips' (Greenwich time signal) for 9 a.m. signalling the end of the programme. In the next two, a recorded interview is brought to a close, followed by the journalist's voiceover:

17. Today Programme, BBC Radio 4, 5/4/05
(SM: Sarah Montague; JH: John Humphrys. This occurs just before the programme's end):

1 SM: And just before we go, VERY important.ly we MUST tell you
2 that if you're going to put that bucket out for the stag
3 beetles, (.) pie:nce some holes in the bottom, if you don't
3 it'll become waterlogged and they ↑will dro:wn.
4 JH:→ >Which would not be the object of the exercise< our editors
5 Gavin Allen, Claire Thorpe, ↑good morning.
6 (PIPS)

18. 'Broadcasting House', BBC Radio 4, 17/4/05
Chris Ledgard interview with Sir Malcolm Rifkind, Prospective
Parliamentary Candidate for Kensington and Chelsea. K&C has
only about 45% turnout in general elections, because many in
the constituency also have a house in the country and may
choose to vote there:

1 MR Quite a number (.) feel that the constituency in the

- 2 country may be more marginal.
- 3 CL→ (on voiceover) Which is just one of life's hellish choices.
- 4 To test the theory, it was back to the fishmonger's queue.
19. 'Broadcasting House', BBC Radio 4, 17/4/05
Chris Ledgard interview with woman customer (C) in fishmonger's
(see extract 18), who claims that the mood in K&C is changing.
- 1 C I think the m:ajorities will alter quite considerably and
2 then I think there'll be a hu:ge swing at the next election.
- 3 CL→ (on voiceover) Which is just one opinion. But if you leaf
4 through any eleection guide, there is one phrase which crops
5 up occasionally, and that's the once safe seat. Because of
6 course not every seat stays safe foreever.

In each of these we can see how the recompleter, proposing the prior turn to have been incomplete, has the last word, facilitated structurally by the denial of speaking rights to the other. In this respect, extracts (17) and (18) show how such an environment is suited to the use of ironic subversion.⁶

5. Conclusion

The difference between the common interactional instantiation of the non-restrictive relative *which*-clause as an increment and its traditional citation form has led us to investigate the possible interactional motivations for its use. Examination of an initial data set has suggested that *which*-increments may allow for the satisfaction of a principle of minimisation in interaction, and can seek to remedy a lack of progressivity; they thus may allow for the satisfaction of two potentially conflicting interactional principles.

⁶ Extracts (18) and (19) further highlight another common environment for *which*-increments: reported speech. The common use of such increments in reported speech is attributable to the routine practice of immediately establishing one's stance in relation to that which one has just reported (one form of which these are surely examples). See also (3) and (8).

A subsequent examination of *which*-increments in their possible contexts of occurrence has established that they are used to remedy a displayed lack of progressivity in only one position: post-gap. More generally, it has been established that their use in alignment and disalignment is a function of their placement. The following is a schematic representation of the types of increment and what they serve to do:

<i>Characteristic</i>	Next-beat	Post-gap	Post-other-talk	Other-initiated recompletion
<i>Examples</i>	8,9,10	1, 2,3,4,6,7	11,12,13	14,15,16,17,18,19
<i>Function</i>	Adjustment to own stance or point in transition space	Supplies stance or point in wake of withheld response = 'failure'	Sequentially deletes other's talk, proposing other has interrupted	Proposes other's talk as incomplete
<i>Stance</i>	ALIGNING		DISALIGNING	

Figure 1: *Which*-increments: a summary

Of course, this table does not represent an equal distribution of types. A few observations on the collection as a whole are in order. Of the 96 examples in the current dataset, over twice as many pursue alignment as disalignment. There is no significant difference between the number of assessments (50) versus elaborations. However, in a couple of cases there do appear to exist affinities between the type of action launched and the position it is launched from. Overwhelmingly, increments in next-beat position constitute assessments, an indication of speakers' vigilant attention to pursuing a common stance where possible. When elaborations occurred, in pursuit

of referential common ground, they were most likely to be placed after a gap, a finding which supports Heritage's observation (2007) that assumptive understanding is the default. No such affinities were identified between actions launched post-other-talk or as other-completions. This suggests that a speaker can, in the transition space, launch specific actions directed to the pursuit of intersubjectivity and a common stance; past this juncture and one is already disaligning, whether with an elaboration or an assessment.

We return finally to the observation with which we started: the prolific interactional use of the non-restrictive relative construction as an increment. Increasingly, too, written (especially journalistic) usage aping the style and cadences of ordinary talk is adopting this format.⁷ In establishing why it should be so common we should return to the twin elements of grammar and action.

As we have seen, in relation to the increments in aligning positions, the anaphoric element that makes possible their use as increments also by extension facilitates speakers' conformity with a minimization constraint in conversation. Speakers can pursue understanding as in the 'Esserleen' case (2) or a common stance as in (1), 'he used to hold my hand', with, in the first instance, minimal resources. It is proposed here that that is why *which*-clauses are produced as increments more often than as prosodic continuations of a main clause. What the less frequent disaligning cases show is that, by the same token, the apparent completion of a turn is not necessarily the end of the matter: the same qualities which make a TCU amenable to extension by a *which*-increment can make it vulnerable, too. This study has underwritten an assertion familiar to conversation analysts, that positioning matters: how, in other words, time intersects with grammar to interactional ends.

⁷ Examples abound, so one will have to be representative here: 'Brook treats theatre less as a product than as a process: a collaborative means of exploring life's mystery. Which is precisely what makes him unique'. (Michael Billington on Peter Brook: 'I hate nothing more than art and culture', *The Guardian*, 8/6/05).

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APPENDIX: TRANSCRIPTION CONVENTIONS

The transcripts adopt the following conventions (adapted from Ochs *et al*, 1996:461-5). For the sake of clarity, some of these conventions are illustrated with excerpts from the data:

- [Separate left square brackets, one above the other on two successive lines with utterances by
- [different speakers, indicates a point of overlap onset
-] Separate right square brackets, one above the other on two successive lines with utterances by
-] different speakers indicates a point at which two overlapping utterances both end, where one ends while the other continues, or simultaneous moments in overlaps which continue:

35Tony: W't's 'e g'nna do go down en pick it up later? er

36 → somethin like () [well that's aw]:ful

37Marsha:→ [H i s friend]

38Marsha: Yeh h[is friend Stee-]

39Tony: [That really makes] me ma:id,

- = Equal signs ordinarily come in pairs – one at the end of a line by one speaker and another at the start of the next line (or one shortly thereafter) by another. This indicates that the second speaker followed the first with no discernable silence between them, or was ‘latched’ to it.

1Bea→ hh hhh We:ll,h I wz gla:d she c'd come too
las'ni:ght=

2Nor→ =Sh[e seems such a n]ice little [l a dy]

- (0.5) Numbers in parentheses indicate silence, represented in tenths of a second. Silences may be marked either within turns:

21Les:→ .hhh Uh:m (0.2) .k Well ↑we got cut off on
Thursda:y,

or between them:

55Mum: That's a nuisance isn't it.

56Les: Yee[s.

57Mum: [They're getting terrible.

58 → (0.3)

59Les: We:l[l I- I ↑s ai d]

60Mum: I [mean ↑look what]

61 → (0.2)

62Les: I said to them.

- (.) A dot in parentheses indicates a ‘micropause’, ordinarily less than 2/10ths of a second:

5→ =.hh I enjoy children:, .hh I started writing: (.)

6 juvenile books fer entirely pra:ctical reasons, .hh

- .?, The punctuation marks indicate intonation. The period indicates a falling, or final intonation contour, not necessarily the end of a sentence. A question mark indicates a rising intonation, not necessarily a question, and a comma indicates 'continuing' intonation, not necessarily a clause boundary.
- ::: Colons are used to indicate prolongation or stretching of the sound preceding them. The more colons, the longer the stretching. On the other hand, graphically stretching a word on the page by inserting blank spaces between the letters of the word does not indicate how it was pronounced; it is used to allow alignment with overlapping talk. Thus:
- 2Nor→ =Sh[e seems such a n]ice little [l a dy]
 3Bea→ [(since you keh)] [dAwf'l]ly nice
 l*i'l
 4 p*ers'n.
- A hyphen after a word or part of a word indicates a cut-off or self-interruptions, often done with a glottal or dental stop.
- 43Marsha:→ I- I, I told my ki:ds.
- word Underlining is used to indicate some form of stress or emphasis, either by increased loudness or higher pitch.
- WORD Especially loud talk relative to that which surrounds it may be indicated by upper case:
- 43Marsha: I- I, I told my ki:ds. who do this: down et the Drug
 44 Coalition ah want th'to:p back.h {·hhhhhhhhh/(1.0)}
 45 → SEND OUT the WO:RD.hhh hnh
- ↑↓ The up or down arrows mark particularly emphatic rises or falls in pitch.
- °word° The degree signs indicate that the talk between them is markedly softer than the talk around them:
- 12Les: Oh:. wasn't it [°clear°
- >word<The combination of 'more than' and 'less than' symbols indicates that the talk between them is compressed or rushed.
- hh Hearable aspiration is shown where it occurs in the talk by the letter 'h': the more 'h's, the more aspiration.
- hh If the aspiration is an inhalation it is preceded by a dot:
- 44 → ah want th'to:p back.h {·hhhhhhhhh/(1.0)}
 45 SEND OUT the WO:RD.hhh hnh
- £word£Word or words enclosed by pound sterling signs indicate the word is articulated through a hearably smiling voice:
- 62Les:→ I said to them. £↑This is British Telecom for you. (h) £=
- (--)
- Words unclear and so untranscribable

(word) Best guess at unclear words

*word*Creaky voice

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