

# Dialect Death by Concentration: Glide-Fronted /aw/ in Smith Island Adolescent Speech

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Past research of dialect loss mostly focused on the phenomena of dissipation or assimilation. Yet recent investigation of the dialect of Smith Island, Maryland, highlights an alternative phenomenon, death by concentration, in which a dialect becomes more rather than less distinct as it loses speakers (Schilling-Estes and Wolfram 1999). Dialect concentration has been attested in morphological change over apparent and real time in Smith Island data from the 1980s and early 21st century (Schilling-Estes 2000), as well as in phonological change in apparent time (Schilling-Estes and Wolfram 1999). Using the same pool of sociolinguistic interview data, this paper finds that dialect concentration on Smith Island can also be observed in at least one phonological feature, i.e. in change of the local linguistic identity marker, glide-fronted /aw/ (as in /hæɪs/ for 'house') over real time. Data was taken from 1980s and current interviews with adolescents. Tokens for /aw/ were extracted and evaluated impressionistically, and subjected to statistical analysis using VARBRUL. The results show that change in this phonological variable is rapidly closing the gap between male and female usage rates, a pattern also observed for morphological features (Schilling-Estes 2000). While the frequency of glide-fronted /aw/ was at 77% for female and 31.3% for male adolescents twenty years ago, usage rates now almost converge at 67% and 64% respectively. Further, the distribution of /aw/ variants seems to be in the process of becoming more and more systematized according to phonological environment, with following obstruents favoring glide-fronting and nasals disfavoring. Possible explanations for these concentration phenomena are found in the speakers' need to assert a unified island identity in the face of increasing contact with outsiders (Schilling-Estes 2000).

(1) Excerpt from an interview with four female Smith Island adolescents, 2001<sup>1</sup>

- 1 Fieldworker: I wanted to ask you guys, do kids from Smith Island stick together at school?
- 2 Speaker 1: Yeah.
- 3 Speaker 2: If anybody gets picked on, then we're all there, the next day, or something like that. You know, stick together. So. And everywhere we go everybody makes fun of us. How we talk and stuff ... like we say /dæɪn/ ['down'] instead of /dawn/.
- 4 ...
- 5 Fieldworker: What do the teachers think?
- 6 Speaker 1: They, they tease me also ... well they don't really like tease us, they're like, "Say that again?" I'm like /æɪt/ ['out'], they're like, "What's that? ... There's no such thing as /æɪt/!" ... I'm like, yeah it is, (laugh) *from where I'm from it is anyway* (laugh).

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<sup>1</sup> Interview transcribed by Jeffrey Parrott; phonetic transcription adapted from Schilling-Estes and Wolfram 1999: 503; italics added.

The dialect of Smith Island, Maryland, has been under linguistic investigation since the 1980s; since then, studies have attested that the linguistic situation on Smith Island is one of dialect death by 'concentration', where the dialect, as it is dying out due to a general loss of speakers, is *not* in fact concomitantly becoming dissipated so as to lose its distinctive features (as is the case for example with Ocracoke English in North Carolina), but rather, it is rapidly becoming more and more distinctive in its few remaining speakers (Schilling-Estes 1997, Schilling-Estes and Wolfram 1999, Schilling-Estes 2000).<sup>2</sup>

This paper provides further evidence of the dialect concentration phenomenon, contributing the analysis of the recent development of glide-fronted /aw/ (considered the most salient feature of Smith Island English – cf. Schilling-Estes and Wolfram 1999) in a young generation of Smith Island adolescents. Previous studies have traced the usage levels of glide-fronted /aw/ over three age-generations of Smith Island speakers, and the results showed a significant increase in usage over (apparent) time (Schilling-Estes and Wolfram 1999; see Bailey 2002 for apparent time modeling of language change). In the following, I present the results from a study that adds a new, fourth generation of adolescents to this picture; I will then incorporate my results into the previous findings in order to provide an analysis of the current status of glide-fronted /aw/ on Smith Island, with implications for the future.

### **SOCIOLINGUISTIC BACKGROUND: SMITH ISLAND, MARYLAND<sup>3</sup>**

**Fig 1: The location of Smith Island, Maryland, USA (from Schilling-Estes 2000)**



The occurrence of dialect loss on Smith Island is largely due to the social and geographic situation in place: Smith Island (which is actually a group of small islands about 10 miles off the

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<sup>2</sup> Further studies of different features of Smith Island English are e.g. Mittelstaedt and Parrott (2002); Parrott (2002) and (2006); Wolfram and Schilling-Estes (2003); Schilling-Estes and Wolfram (2003); Trester (2003).

<sup>3</sup> See Schilling-Estes (1997) for more detail on the sociolinguistic setting of Smith Island.

coast of Maryland – see Fig. 1 above) is at its highest point no more than roughly two feet above sea level; and over the last decades, it has lost a lot of land to the Chesapeake Bay. In fact, the islands are said to be gradually sinking into the sea, which is projected to make the communities there uninhabitable over the next fifty to one hundred years. Furthermore, it is becoming increasingly difficult for the residents of Smith Island to make a living on the island, as the traditional seawater industries of oystering and crabbing are on a decline, for economic and ecological reasons. Also, there is virtually no tourism. These factors combine to constitute the reason why the population of Smith Island today has been cut almost in half since 1970; it is now at about 350, and it still continues to shrink. It is this decrease in both land mass and inhabitants that has led to the severe endangerment of the distinct dialect of American English spoken on Smith Island, a dialect that originally developed during centuries of relatively isolated island life, starting with the original settlement in the late 1600s.

The particular life circumstances on Smith Island can also be regarded as the main reason for why Smith Island English, as opposed to some other endangered dialects, is not merely becoming dissipated or replaced by an incoming majority language variety, but rather is 'concentrating'. Thus, as Smith Island loses community members and dialect speakers largely due to circumstances beyond control, the remaining speakers seem to draw together more, forming a close-knit community in which the dialect is today becoming still more and more distinctive from other surrounding varieties. This scenario is very different from, for example, that on Ocracoke Island, a little further to the South off the coast of North Carolina, where the local dialect is eroding under the influx of mainland settlers and tourists (Schilling-Estes and Wolfram 1999).

## **GLIDE-FRONTED /AW/ IN SMITH ISLAND ENGLISH**

Dialect concentration, then, makes for the fact that certain distinguishing features get heightened in usage rather than lowered, and often quite rapidly so. For Smith Island English, this phenomenon has for example been attested in cases of morphosyntactic features (e.g. leveling of negative past 'be' to 'weren't'; use of existential 'it'),<sup>4</sup> and phonological features (e.g. raising of the diphthong nucleus of /aj/ to [ɔ̄i]; glide-fronting of /aw/ to [aɪ]) - (see Schilling-Estes 1997; 2000).

As has already been mentioned, glide-fronting of /aw/, the feature that is the focus of this paper, is a stereotype or symbolic icon of Smith Island speech that is also frequently commented upon by the speakers; and, as such, it is a marker of Smith Island identity (Schilling-Estes and Wolfram 1999). In other dialects where this feature occurs, it has been shown to be phonetically contingent on a fronting of the nucleus of /aw/, which apparently pulls the glide along (Schilling-Estes and Wolfram 1999; Labov et al. 1972). Fronting and raising of the /aw/ nucleus itself, then, has been identified as a characteristic of the Southern Vowel Shift, and centralized raising of /aw/, as a feature of e.g. Canadian English or the dialects of Martha's Vineyard and Tidewater

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<sup>4</sup> For studies on morphosyntactic features of Smith Island English see e.g. Mittelstaedt and Parrott (2002), Parrott (2002), Trester (2003), Wolfram and Schilling-Estes (2003), Schilling-Estes and Wolfram (2003), Parrott (2006).

Virginia (the dialect region including Smith Island) – (Schilling-Estes and Wolfram 1999; Labov 1994). In this context, it could be expected that Smith Island glide-fronting is also accompanied by fronting of the nucleus. However, this is not always the case: glide-fronted /aw/ on the island also occurs in environments without a fronted diphthong nucleus. This extension of the pattern to places in which it is otherwise not usually found may ultimately be due to the important symbolic status glide-fronted /aw/ possesses in Smith Island speech, as pointed out above (see Schilling-Estes and Wolfram 1999). Further, "in terms of social marking [...] the exact positioning of the nucleus of /aw/ in phonetic space does not seem to be very important, since it appears to be the trajectory of the glide rather than the position of the nucleus that makes Smith Island /aw/ so noticeable to islanders and outsiders" (Schilling-Estes and Wolfram 1999: 502). Finally, some speakers of Ocracoke English display a similar 'hypercorrection' phenomenon in connection with their respective linguistic identity marker, the realization of the diphthong /aj/ with a raised nucleus (saying 'hoi toide' for 'high tide' – e.g. Wolfram and Schilling-Estes 1995).

Previous findings in Smith Island data from the mid-1980s show that the glide-fronting of /aw/ has increased very rapidly over a generation of middle-aged women (born 1942-1961), and has leveled off in a younger generation (born 1965-1971). This development ultimately follows a pattern common to language change across communities, which can be outlined as an S-curve (e.g. Weinreich et al. 1968). Male peers were lagging in the change, which is also a phenomenon commonly observed in connection with innovative language change (such as glide-fronting of /aw/) - (Schilling-Estes and Wolfram 1999; Dubois and Horvath 1999).

Further, /aw/ has been shown to be categorically back-glided in word-final position ('how', 'now') and word-medial syllable-final position ('tower', 'nowadays') for all speakers. As Schilling-Estes and Wolfram conclude (1999: 498), "[t]his suggests that /aw/ has undergone an allophonic split, in which fronting is restricted to closed syllables." Other linguistic environments within syllables, such as following obstruents ('out', 'cloud'), nasals ('around'), and liquids ('hour'), have so far not proved to have a significant traceable effect on the production of variants of /aw/ (Schilling-Estes 1999).

In order to update and further illuminate these previous findings, then, the present paper takes a look at the recent development of the patterns of glide-fronted /aw/ on Smith Island, in the speech of a new group of adolescents (born 1975-1987). Based on the existing evidence, the contextual parameters as outlined, as well as the attested principles of dialect concentration (e.g. Schilling-Estes 1997), one can hypothesize that usage of glide-fronting will further increase in the young population of Smith Island overall. Further leveling off for the females and probably some gap-closing by the males can also be expected, which could bring the language change closer to completion throughout the community. In how far these hypotheses hold shall be seen presently.

## **THE STUDY: METHODS, TOOLS, SET-UP**

The first part of this study is an analysis of data recorded during a series of sociolinguistic interviews on Smith Island from 1999-2001. The second part then draws from these results as well from those of a previous investigation of data recorded on Smith Island in 1983 (see Schilling-Estes and Wolfram 1999), in a comparative evaluation designed to uncover the pattern of change over 'real time' (see Bailey 2002).

In detail, the more recently collected data used for this study (dating from 1999-2001) comprise interviews with eight different speakers (born 1975-1987): 3 males (aged 15, 17, and 25 at the time) and 5 females (aged 12, 14, 17 (2), and 21).<sup>5</sup> The data for the previous study (Schilling-Estes and Wolfram 1999) came from 24 interviews conducted with 24 Smith Island speakers in 1983: 2 'Older Women' (born 1911-1916), 4 'Older Men' (born 1899-1932), 4 'Middle-Aged Women' (born 1942-1961), 4 'Middle-Aged Men' (born 1944-1961), 6 'Younger Women' (born 1968-1971) and 4 'Younger Men' (born 1966-1970).

Both studies use impressionistic data analysis in their identification and evaluation of tokens for /aw/. As this present study was carried out specifically as a comparative continuation of the previous analysis of Smith Island /aw/ (Schilling-Estes and Wolfram 1999), inter-coder reliability was a central issue; to encounter it, I double-checked my own impressionistic evaluation of the tokens with the researcher of the original study, Natalie Schilling-Estes, in order to ensure compatibility of our standards of assigning different /aw/ values to tokens (fronted glide, monophthong, back glide), and thus to establish the comparability of results obtained in both studies. An ad hoc impressionistic analysis of selected interview passages by both 'present' and 'past' researcher showed that the values assigned indeed matched up.

Tokens were thus coded for their assigned /aw/ value (drawn together as 'application' or 'non-application' of glide-fronted /aw/ - see VARBRUL analysis below),<sup>6</sup> following environment (both by individual sound and by the categories +/- voiced obstruent, nasal, liquid, and word/syllable-final position),<sup>7</sup> speaker, and speaker's sex. I decided to discard instances of demonstrated speech from the sample (see e.g. the quote at the beginning of this paper) so as not to skew the results, which were to be based on 'natural' occurrences of /aw/ in the interviews. Further, a cut-off level for individual tokens was set at max. 20 per speaker, and once this amount was reached in the chronological sequence of the respective interview, tokens in excess (specifically, excess instances of the high-frequency items 'about', 'around', 'down', and 'out') were thrown out. At the end, a total of 651 tokens remained in the sample from 1999-2001, of which 580 could be assigned a definite value. The total token count for the previous study (data from 1983) was 990 across all three generations of speakers (Schilling-Estes and Wolfram 1999).

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<sup>5</sup> The decision to combine these speakers into one age group of 'adolescents' was based on the fact that the young people on Smith Island all socialize together, as confirmed separately in one of the interviews and by one of the fieldworkers (Jennifer Mittelstaedt, personal communication). Also, for the same reasons, no distinction was made in the analysis between speakers from different communities on Smith Island (Ewell, Rhodes Point).

<sup>6</sup> I.e. at this point, monophthongal and back-glided variants were pooled under the code of 'non-application', for reasons of scope.

<sup>7</sup> In the present sample, the category 'liquid' solely contains tokens of /aw/ followed by /r/ ('hour', 'our(s)', 'ourselves', 'power', 'shower', 'tower', 'flowers', 'Howard'). These tokens were grouped together in awareness of the fact, and thus with the caveat, that it is generally rather difficult to determine whether the words concerned are mono- or polysyllabic, and thus whether or not /aw/ is here, too, in syllable-final position.

**PRESENTATION AND ANALYSIS OF RESULTS**

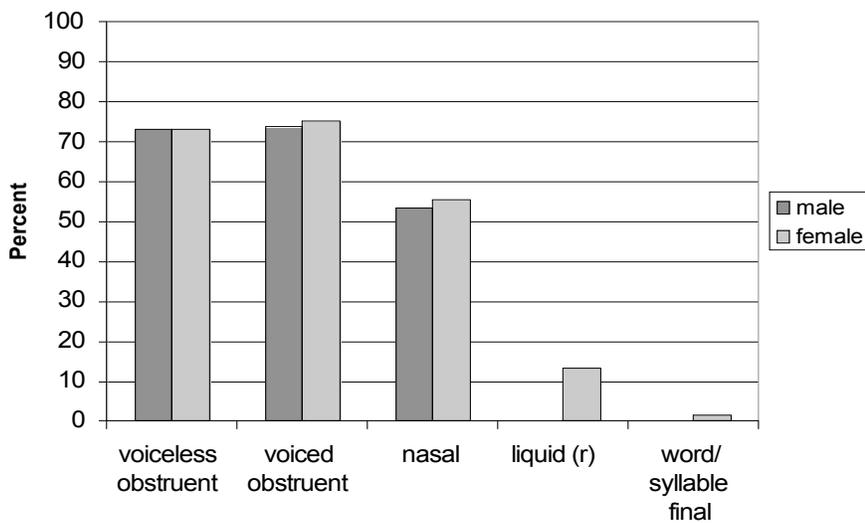
*The 'new generation'*

With the new data coded, a first set of frequency analyses were carried out using SPSS 11.0, in order to gain an overview of distributions within the 1999-2001 sample. First, the data was grouped according to speaker's sex, which yielded the following pattern for the usage of glide-fronted /aw/ among this 'new generation' of Smith Island adolescents (Table 1 and Figure 2):

**Table 1: Patterning of glide-fronted /aw/ for Smith Island adolescents (1999-2001 data set)**

	Voiceless obstr.		Voiced obstr.		Nasal		Liquid		Word/syll. final		all envir.	
	fronted	total	fronted	total	fronted	total	fronted	total	fronted	total	fronted	total
Males N	68	93	14	19	53	99	0	44	0	49	135	304
%	73.1%		73.7%		53.5%		0%		0%		44.4%	
Females N	87	119	3	4	36	65	4	26	1	57	131	276
%	73.1%		75.0%		55.4%		13.3%		1.7%		47.5%	
Total N	155	212	17	23	89	164	4	70	1	106	266	580
%	73.1%		73.9%		54.3%		5.8%		0.9%		45.9%	

**Fig. 2: Percentages of glide-fronted /aw/ - distribution over different following environments in comparison between male and female adolescents (1999-2001 data set)**



This first overview already shows that the usage of glide-fronted /aw/ does not differ widely between male and female speakers anymore, contrary to findings among previous generations (Schilling-Estes and Wolfram 1999; see discussion further below). On the other hand, the distribution according to 'following environment' does show some differences that warrant further investigation.

The next, principal part of the analysis, then, was carried out running the VARBRUL program with the data (e.g. Fasold 1986),<sup>8</sup> in order to establish the statistical significance of factors like speaker's sex and linguistic environment in the variation pattern of the different forms of /aw/, and to show the extent to which each factor influences the production of the glide-fronted variant.

A first run using both the factor group of speaker's sex and of following environment yielded the following results:

**Table 2: VARBRUL results for glide-fronting of /aw/ for Smith Island adolescents (1999-2001 data set)**

<b>SMITH ISLAND ADOLESCENTS' GLIDE-FRONTING OF /AW/</b>	
Application = glide-fronting	Input probability = .32
<b>GENDER GROUP:</b>	<b>FOLLOWING ENVIRONMENT:</b>
male = .48	Voiceless obstruent = .85
female = .52	Voiced obstruent = .87
	Nasal = .72
	Liquid (r) = .11
	Word/ syllable final = .02
Chi-square per cell = .640	Total chi-square = 6.403

As expected after the first look at the frequency calculations, and as further confirmed in a step-up/step-down procedure in VARBRUL, speaker's sex did not turn out to be a significant factor in terms of influencing the production of variants of /aw/ among the Smith Island adolescents, which means that male and female speakers are now almost equally likely to produce the glide-fronted variant.

However, the distribution of variants of /aw/ according to 'following environment' turned out to be highly significant: voiced and voiceless obstruents (e.g. 'out', 'cloud') as well as nasals (e.g. 'down') favor glide-fronting, relatively to liquids (e.g. 'hour') and especially word/syllable-final position (e.g. 'now'), which disfavor the application almost categorically. Note that categorical back-gliding for word-final position was also reported for the previous generations of Smith Islanders in Schilling-Estes and Wolfram (1999). In order to investigate this pattern further, more

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<sup>8</sup> VARBRUL is a probabilistic-based, multivariate statistical procedure that shows relative contributions of various factors to the overall variability of fluctuating forms (e.g. Schilling-Estes and Wolfram 1999; Wolfram et al. 2000; for more detail see Cedergren and Sankoff 1974; Guy 1993).

VARBRUL-runs were conducted with different data set-ups. One hypothesis at first glance was that the almost exclusive non-applications for liquids and especially for word/syllable-final environment could be the main reason for the significance of 'following environment'. Therefore, the next run excluded these last two environments from the analysis. Yet, again, the following environments of +/- voiced obstruent and nasals proved to be significant factors (as confirmed in step-up/step-down procedure), though with a different pattern:

**Table 3: VARBRUL results for glide-fronting of /aw/ for Smith Island adolescents (1999-2001 data set), with adjusted factor group of 'following environment'**

**SMITH ISLAND ADOLESCENTS' GLIDE-FRONTING OF /AW/**

Application = glide-fronting                      Input probability = .66

**GENDER GROUP:**

Male = .50  
Female = .51

**FOLLOWING ENVIRONMENT:**

Voiceless obstruent = .58  
Voiced obstruent = .59  
Nasal = .38

Chi-square per cell = .005

Total chi-square = .029

The main distinction now is between obstruents and nasals; the former tend to favor application of glide-fronting, while the latter clearly disfavor it. Also, the factors of 'following environment' retained virtually the same probability levels in two additional runs that pooled all speakers together, males and females (one run with all 5 factors of following environment, one with only the first three), which again shows that speaker's sex is not important for the production of variants of /aw/ in these linguistic environments overall.<sup>9</sup> Further discussion of 'following environments' will follow below.

Another issue to be resolved in the statistical data analysis was whether or not the speakers selected formed a homogeneous sample group. To investigate this, a VARBRUL run was conducted that included each speaker as a separate factor (with the exception of one of the female speakers whose token count was too low). This run, however, rejected 'speaker' as a statistically significant factor group, suggesting that the sample was indeed rather homogeneous, and providing more evidence of leveling across the community.

***The results pooled: tracing the development of /aw/ over four generations***

Subsequent to this statistical analysis of the data from 1999-2001 and the patterns it yielded for the distributions of /aw/ variants in this new sample of adolescents, I proceeded to what was probably the most intriguing part of the investigation - the pooling of the new data with that from

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<sup>9</sup> An additional run that might have investigated the significance of speaker's sex in relation to the 'following environments' of liquids and in word/syllable final position could not be carried out due to the fact that these environments are categorical knock-out factors for glide-fronting in the male sample.

the previous study of the three older generations of Smith Island speakers (Schilling-Estes and Wolfram 1999). The VARBRUL results for this set-up are presented below – note that the factors under 'following environment' were limited to +/- voiced obstruent and nasal, following Schilling-Estes and Wolfram (1999):

**Table 4: VARBRUL results for glide-fronting of /aw/ for four generations of Smith Island English speakers**

**VARBRUL RESULTS : GLIDE -FRONTED /AW/ ON SMITH ISLAND  
OVER FOUR GENERATION S**

Application = glide -fronting	Input probability = .45
<b>AGE/GENDER GROUPS:</b>	<b>FOLLOWING ENVIRONMENT :</b>
Older Women = .05	Voiceless obstruent = .53
Older Men = .08	Voiced obstruent = .5 8
	Nasal = .46
Middle -aged Women = .85	
Middle -aged Men = .25	
Younger Females = .81	
Younger Males = .36	
New Generation Females = .70	
New Generation Males = .69	
Chi-square per cell = .808	Total chi -square = 19.390

In the context of the previously established findings, what is most salient in this new set-up is again the closing of the gap in the probability levels for the use of glide-fronted /aw/ between male and female speakers over real time.<sup>10</sup> That is to say, while the male teenagers from the eighties-sample, despite a noticeable increase, still displayed probability levels for glide-fronting that were significantly lower than those of the females, the new generation of male teenage speakers now use glide-fronting almost as often as their female peers, whose usage has actually *receded* to a point where it now matches that of the males. This could perhaps mean that glide-fronting of /aw/ has reached a stable level, and, in that sense, that we are probably looking at a language change that is close to its completion.<sup>11</sup>

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<sup>10</sup> Note, for further reference in this paper, that the results given in this section represent of course a mixture of real and apparent time data (see Bailey 2002) – apparent time data in the case of the three generations of the previous study of /aw/, and real time data in the case of the two successive generations of adolescents (recorded 1983 / 1999-2001).

<sup>11</sup> Note, though, that the youngest speaker of the '99/'01 sample of adolescents had by far the highest usage levels of glide-fronted /aw/ in her peer group (an SPSS analysis indicated statistical significance for this calculation).

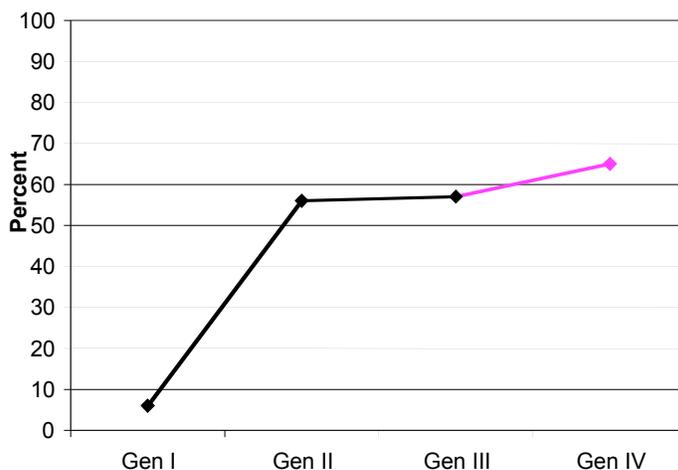
Further VARBRUL-testing of the data in the step-up/step-down procedure confirmed the statistical significance of the age/gender factor group; however, 'following environment' (obstruents and nasals) was this time rejected as a significant influence in the production of variants of /aw/, just as in the original study (Schilling-Estes and Wolfram 1999).

Table 5 and Figure 3 illustrate the development of /aw/ over the four generations of Smith Island speakers included in the present set-up of the study (for reasons of comparability, percentage levels of glide-fronted /aw/ among today's adolescent group have also been adjusted to include only the 'following environments' of +/- voiced obstruents and nasals):

**Table 5: The quantitative distributions of glide-fronted /aw/ over four generations on Smith Island**

Generational Group	Glide-fronted /aw/	
	N / Total	Percent
Generation I (b. 1899 -1932)	17 / 273	6%
Generation II (b. 1942 -1961)	223 / 395	56%
Generation III (b. 1965 -1971)	182 / 322	57%
Generation IV (b. 1975 -1987)	261 / 399	65%

**Figure 3: The patterning of glide-fronted /aw/ over four generations of speakers on Smith Island**



As originally hypothesized (see further above), these results do give evidence of a further increase of usage of glide-fronted /aw/ among the new group of Smith Island adolescents. However, Table 6 and Figure 4 again illustrate quite nicely that this increase is solely due to the

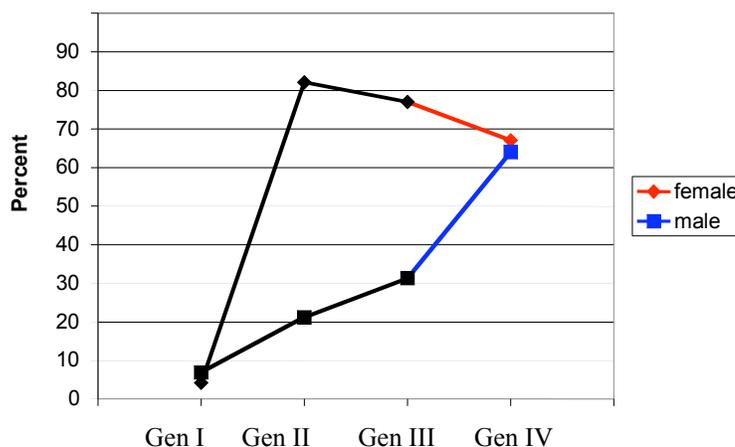
However, her token-count was too low to warrant any further consideration of this finding. More data would be needed to see whether or not glide-fronted /aw/ could indeed be increasing again over time in the (female) population.

development of /aw/ in the male population, whereas the female population goes beyond the predicted 'leveling-off' (see above) in showing an actual recession that puts them 'in sync', so to say, with the males:

**Table 6: The quantitative distributions of glide-fronted /aw/ over four generations of speakers, patterning according to speakers' sex**

		Glide -fronted /aw/	
		N/Total	Percent
Generation I	Female	3/71	4.2%
	Male	14/202	6.9%
Generation II	Female	188/229	82.1%
	Male	35/166	21.1%
Generation III	Female	137/178	77.0%
	Male	45/144	31.3%
Generation IV	Female	126/188	67.0%
	Male	135/211	64.0%

**Figure 4: The patterning of glide-fronted /aw/ over four generations of speakers on Smith Island split up according to speaker's sex**



Once this overall picture was established, then, a final VARBRUL-run was conducted with data from the present and the previous study in order to further pursue the investigation of the influence of 'following environment'. For this purpose, only that part of the sample was selected that represented the real-time data (e.g. Bailey 2002; and see footnote 11 above) – i.e. the data

produced by the adolescents in 1983 and the adolescents in 1999-2001. Table 7 shows the results of this run:

**Table 7: VARBRUL results for glide-fronting of /aw/ for two generations of Smith Island adolescents, with reduced factor group of 'following environment'**

**SMITH ISLAND GLIDE -FRONTING OF /AW/ ACROSS TWO GENERATIONS OF ADOLESCENTS**

Application = glide -fronting	Input probability = .63
<b>GENDER GROUP:</b>	<b>FOLLOWING ENVIRONMENT :</b>
'83 Female Adolescents = .67	Voiceless obstruent = .56
'83 Male Adolescents = .21	Voiced obstruent = .60
'99/01 Female Adolescents = .55	Nasal = .41
'99/01 Male Adolescents = .53	
Chi-square per cell = .466	Total chi -square = 5.590

As it turned out, this time 'following environment' was kept in by VARBRUL as a significant factor group, in addition to the age/gender group. Interestingly, the pattern for the environments is the same as in the earlier run where only the '99/01 adolescents were considered (see Table 3): obstruents rather favor glide-fronting, while nasals disfavor it.<sup>12</sup> These findings together with their possible implications shall be considered in the following final section of this paper, which will put the present study into a wider context to allow for some broader interpretation.

## DISCUSSION AND INTERPRETATION OF RESULTS

These, then, are the results of the present study as they stand: first and foremost, it has been shown that the sociolinguistic stereotype of glide-fronted /aw/ is still very much an important part of the speech of Smith Island adolescents today. In fact, usage levels of male and female speakers have now converged at over 60%, following a rather steep, and certainly rapid, rise of glide-fronting in the male population, and a minor recession in the female. This seems to give further evidence in support of Schilling-Estes' hypothesis (2000: 11) that "[Smith I]slanders feel an increasing need to assert one common, unified identity in the face of ever-increasing contact with outside cultures," and thus in the face of the endangerment of their distinct speech variety.

Further, an analysis of the following linguistic environment of the variable /aw/ indicates that glide-fronting in the sample is favored preceding obstruents, less likely preceding nasals, and highly unlikely to categorically excluded preceding liquids or in word/syllable-final position. Although this pattern has already seemed to tentatively appear in the previous generation of adolescents, it has certainly gained in significance over time (compare Schilling-Estes and

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<sup>12</sup> Notice, though, the very low token count for the voiced obstruent-environment in the '83 sample (Schilling-Estes and Wolfram 1999).

Wolfram 1999). Thus, we can say that glide-fronting has not only increased more and more across the board, but it may also have become more phonologically systematized or 'orderly' over time, with a potential rule crystallizing.

In addition, it is quite interesting to observe that the 'hierarchy' of environments favoring/disfavoring the fronting of the glide (obstruents versus nasals) corresponds closely to the hierarchy that has long ago been established among linguistic influences that favor a centralization of the *nucleus* of /aw/. Thus, Labov (1963) reports obstruents as highly favoring and nasals as disfavoring centralization in a study of the dialects spoken on Martha's Vineyard. This brings us back to my initial general description of the phenomenon of /aw/ glide-fronting in other dialects: I mentioned earlier that occurrence of this feature in other regional varieties has been shown to be phonetically contingent on some sort of upward movement of the nucleus. Let me emphasize again that Smith Islanders have been shown to 'hypercorrect', so to speak, fronting their glides well beyond the reaches of this contingency rule. However, it has just been established that the hierarchy pattern of 'following environment' concomitant with glide-fronting in /aw/, as found in this study, does parallel the hierarchy pattern of 'following environment' concomitant with nucleus-centralization in /aw/ as found by Labov (1963). This parallelism does not appear accidental; yet, we currently have no evidence regarding its potential implications, e.g. of whether this parallelism actually is an indicator of increased nucleus centralization in glide-fronted /aw/ tokens produced by Smith Islanders. An acoustic analysis of the nuclei produced by the new sample of adolescents would be bound to shed some more light on this issue.

In a similar line, another small observation has to be reported, which is to do with the one single occurrence of glide-fronted /aw/ in syllable-final position throughout the recent sample of adolescents, in the token 'chowder' (produced by a female speaker). This token, of course, represents a monomorpheme, as opposed to all the other tokens with /aw/ in word/ syllable-final position, where no glide-fronting occurred. Whether this is a coincidence or maybe more evidence for a new kind of rule forming, where in this case the favoring constraint of following obstruent overrides a disfavoring syllable boundary (and where women are again taking the lead?), can only be determined in further study of Smith Island English.<sup>13</sup>

In sum, the present comparative study has shown that in the face of the adversity generated by their current geographic and social situation, Smith Islanders are increasingly closing ranks dialect-wise - most notably so regarding their linguistic identity marker, glide-fronted /aw/. If the future can be predicted from this, glide-fronted /aw/ will still be strong in the community for some time to come. Further, the study has once more confirmed that dialect death by linguistic concentration is accompanied by some very intriguing phenomena, mechanisms, and developments - e.g. potential phonetic rule-crystallizations - that warrant continued investigation, and that can be very instructive in the investigation of language change in general.

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<sup>13</sup> Note, though, that it cannot be ascertained within the limited scope of this study whether or not the tendential constraints mentioned represent a natural ordering of effects or not. For example, Wolfram and Schilling-Estes (1995: 711) hypothesize, on this head, that "the beginning and end points of a [language] change are more likely to display upheaval in the natural ordering of constraint effects than the midpoint of a change."

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