

Beliefs about Silence in the Classroom

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A questionnaire methodology was used to elicit beliefs and attitudes about silence in the classroom from 319 students aged between 14–16 in three secondary schools in Wales. The three schools can be described as 'rural', 'urban-suburban' and 'urban-inner city'. The socio-economic background of the students may be described as mainly 'working class' for the rural and inner-city schools, and 'middle class' for the suburban school. The inner city school had the highest proportion of students who reported ethnolinguistic backgrounds other than Welsh. Our overall finding was that students believed that they were more silent in the classroom than their teachers, complementing earlier findings of ethnographic and discourse analytic studies. We suggest that for pupils silence is the relatively unmarked, underlying linguistic form in the classroom, while for teachers silence is relatively marked and talk is unmarked. Our results also confirmed the relative importance of silence for learning rather than for teaching. Specifically, students believed that they were more silent when learning than their teachers are when teaching. Furthermore, students in the rural and inner-city schools valued silence in the classroom more than the students in the suburban school, which we explain in terms of the social make up of the three schools.

Introduction: Silence, Communication and Education

Recent years have witnessed a rise in the interest of how inter-personal and inter-group relations are both marked and affected by the use of communicative silence (see, e.g. papers in Tannen & Saville-Troike, 1985; Jaworski, 1997b). Silence has been shown by many to go beyond the non-communicative absence of speech and has been described as a complex linguistic item, whose functioning needs a comprehensive descriptive and explanatory treatment with reference to various pragmatic and sociolinguistic frameworks, for example, ethnography of communication (Basso, 1972; Braithwaite, 1990; Saville-Troike, 1985), politeness theory (Sifianou, 1995, 1997), relevance theory (Jaworski, 1993), discourse analysis (Bilmes, 1994; Watts, 1997; Coupland & Coupland, 1997a) and narrative analysis (Hall *et al.*, 1997), to name just a few. As has been attested by these studies, the functioning of silence cannot be relegated to a few simplistic rules represented across languages in a plethora of popular proverbs about speech and silence, whose survey is offered in Charteris-Black (1995). On the contrary, silence appears as a rich communicative resource whose understanding requires the sophistication of a fine-grained, interdisciplinary analysis. For instance, although ethnographic research has provided a richly layered perspective about the role of silence in communication referring to values (e.g. Scollon, 1985), no systematic measurements of beliefs and attitudes has been undertaken to date. One notable

exception in this respect is a study by Giles *et al.* (1991, discussed below) although their work is not specifically concerned with educational settings. The present study fills this gap by focusing on secondary school students' beliefs about the use of silence in the classroom and begins by examining conceptual approaches to the study of silence. To this end, silence is discussed with reference to markedness theory, the ethnography of communication and the functions of silence in communication. First, however, we need to explain how we conceptualise *silence* in this paper.

Definitions of 'silence' vary greatly, depending on the theoretical frameworks and methodologies adopted for its study. Bilmes (1994: 79) rightly observes that 'there are as many kinds of silence as there are of relevant sounds'. He operationalises silence in terms of two general categories: the simple absence of sound, which he calls 'absolute silence', and the relevant absence of a particular kind of sound, which he calls 'notable silence'. A sub-type of the latter type of silence is absence of (relevant) talk and is labelled by Bilmes as 'conversational silence'. In this study we explore students' beliefs about silence construed as an absence of relevant talk (i.e. 'notable/conversational silence') and not simply as absence of noise in the classroom (i.e. 'absolute silence').

Sobkowiak (1997) argues that communicative silence is the pragmatically marked member of the opposition silence-speech, though it is difficult to refer to markedness criteria associated with the form and content of silence except in terms of its duration. He suggests that the number of communicative situations where silence is preferred to talk or where it is expected as a norm, appears to be rather low. Additionally, silence is particularly deficient in metalingual and referential functions of communication (Jakobson, 1960: 357), though participants may use silence in a facilitative way for the exchange of ideational meanings through the participants' use of pauses, slowing down tempo of speech, taking extra time in answering another's question, etc. (see Scollon & Scollon, 1987). According to Sobkowiak (1997) due to the limited range of communicative functions that silence can perform, limited number of communicative contexts in which it is anticipated, and due to its indeterminacy regarding its content, silence can be said to be relatively marked in relation to speech. It is noteworthy that Sobkowiak also argues that silence can only be considered unmarked or normative in situations which themselves are socially marked. In our discussion (see below), we argue that the markedness view of the opposition speech-silence would merit from a less rigid, more context-sensitive approach.

In her taxonomy of situations, 'levels and domains' of silence, Saville-Troike (1985) mentions, among others, silences determined by the following institutional settings: temples, libraries, religious services, legal proceedings, funerals, classes in school and public performances (operas, movies). Many other locales where silence appears to be the 'norm', or where it is highly valued, can be added: recording studios (Enninger, 1987), hospitals, museums, galleries, and so on. However, Saville-Troike states that many of these settings are also characterised by different (sometimes limited) forms of talk, and both talk and silence are determined contextually, ritualistically or professionally. Priests, members of the congregation, librarians, borrowers, judges, plaintiffs, teachers, pupils, actors, audiences, etc. do remain silent and talk in all of the respective locales (mentioned

above). Analyses may thus consider the degree to which the communication that takes place in these settings is structured through talk and through 'silence' (Philips, 1985), and which of these modes is to be considered the dominant (or unmarked) one. Clearly, in such analyses, not only do we need to consider whether the setting (and the communication in it) is characterised as being silent, but also how silence is distributed as a function of the participants in the setting (Saville-Troike, 1985).

Ethnographic research on participants and their characteristics have yielded two important factors affecting the degree and use of silence in communication. Firstly, in his classic paper, Basso (1972) has linked the use of silence among the Western Apaches to the notion of ambiguity, uncertainty and anxiety in interpersonal relations. Basso's explanation of Western Apache silence in situations such as 'meeting strangers', 'courting' or 'children coming home' was that 'In Western Apache culture, the absence of verbal communication is associated with situations in which the status of focal participants is ambiguous' (Basso, 1972: 83). On examination of a large body of ethnographic research, Braithwaite (1990) suggested that Basso's hypothesis was corroborated by many studies of diverse speech communities, although ambiguity of status between participants was only one of the dominant factors leading to the use of silence. The other important factor related to levels of silence was the presence of a significant power differential between participants with greater silence normally being associated with participants in low power situations.

One author who brought the notions of power, ambiguity and silence together (in a critical psychoanalytic tradition) is Walkerdine (1985), who links relationships of power, conflict, speaking rights and silence with the position of boys and girls in the primary school setting. Walkerdine (1985) argues that girls (in a societally low power situation, especially those from a working-class background) face anxiety and conflict, frequently leading to the state of being silenced, due to the clash of expectations with which they are confronted at school. On the one hand, they are expected to conform to the traditional ideal of the passive, nurturing female, and on the other hand they are also expected to fall into the modern category of an active, enquiring, discovering child. In the case of boys (favoured in terms of societal power), their masculinity proscribes passivity and there is less of a likelihood of a clash of expectations. Hence feelings of anxiety (at least in terms of expectations) on their part are considerably attenuated, saving them the intra-personal conflict and the silence associated with it (see also Murray, 1971). These analyses confirm that variables associated with power interact with ambiguities of role expectations in order to predict observed patterns of silence.

Generally, the above review of research suggests that the use of silence is regulated by a number of factors including the relative markedness of silence, communicative goals, the setting (and sociolinguistic norms within it), ambiguity of roles and expectations, and the relative power of participants. Although attitudes and beliefs about silence are implicit in these studies, they have been largely neglected in previous research. One notable exception to the paucity of this type of research on silence in the social psychology of language is the work of Giles *et al.* (1991), who examined beliefs about talk and silence cross-culturally

and cross-generationally. Starting from the premise that 'beliefs include the evaluation of language behaviours and function at least in part to guide these', Giles *et al.* (1991) obtained beliefs associated with talk and silence from several groups. For instance, Chinese respondents appeared to perceive silence as more important, more enjoyable and being used to a greater degree for social control than Caucasian Americans. Such differences in beliefs about silence complement the results of previous ethnographic research reviewed briefly above and confirm that silence and talk are related to issues of control and affiliation in communication (Giles *et al.* 1991).

So far we have focused mainly on research on silence outside of the classroom context. Though few studies have focused on silence inside the classroom there is some evidence suggesting that high levels of anxiety (associated with students' lack of confidence) in the classroom are likely to result in silence regardless of the cultural background of students and the teaching objectives. For instance, a study involving Finnish learners of English (Lehtonen *et al.*, 1985) has demonstrated that the learners' increased levels of anxiety lead to an increase in their reticence in the classroom. Arguably this anxiety is generated (at least in part) by the ambiguity in students' self-perceptions about their own levels of knowledge.

An important basis for perceived ambiguity in the classroom today is the multi-ethnic and multilingual background of pupils which characterises many British urban educational contexts (e.g. Edwards & Redfern, 1992). We are not in a position here to review the literature on that subject, but it is worth pointing out that research has previously suggested that the multiethnic and multi-linguistic educational environment is strongly associated with a 'culture of silence' (see also Nicholas, 1988, 1989; Searle, 1992).

Biggs & Edwards (1991) have observed that teachers in multi-ethnic, primary school classrooms interact less frequently with non-white children than with their white counterparts, and that their interactions with non-white pupils are less elaborate and shorter in duration than with white children. Additionally, teachers spend less time discussing the particular task that has been set with non-white than with white children. Interestingly, there seems to be less diversity in the numbers and types of interactions initiated by white and non-white children with their teachers. The (non)speaking patterns reported by Biggs & Edwards in their study can be related to the notion of 'notable/conversational silence' suggested by Bilmes (cf. above). We believe, that it is the absence of teachers' specific or relevant talk addressed at a specific audience that matters here, and for which 'silence' is an accurate label.

The qualitative data collected by Biggs & Edwards suggest that the source of the discriminatory linguistic treatment of non-white children by teachers has its source in nonlinguistic racism and prejudice against non-white children. Biggs & Edwards' argument of institutional racism operating in teachers' attitudes towards non-white pupils may also be linked further to the idea of silence as a common response to 'deviation' from the accepted 'norm' (Bruneau, 1973). The perception of someone's 'otherness' will, of course, depend on one's stereotypes and prejudices. The more different another person appears to be from one's self, the more profound will be the silence of puzzlement, embarrassment or anticipation of disambiguation of the situation.

Fat persons, dwarfs, very tall persons, crippled persons with mobility problems, blind persons, persons with pronounced speech or hearing disorders, etc., have known nervous silences toward them. Differences in appearance, such as perceived ugliness, dress, and colour of skin, when different than the situational norm, seem to be greeted by initial silences. The strength of these silences seems to depend on the uniqueness of the difference of the observer. (Bruneau, 1973: 32)

Explanations of silence based on observer distinctiveness underplay the important dimension of power differences between teachers and students in the classroom. Gilmore's (1985) study of silence in a predominantly black inner-city school setting has concerned itself with the transmission and reproduction of power through silence. Gilmore's study of ritualistic displays of silence, combined with other types of students' and teachers' nonverbal behaviours, provides further insights into the nature of communication in the school setting. The author interprets a range of students' and teachers' uses of silence and correlates them with certain types of the participants' orientation and attitudes in classroom interaction. For example, coupled with specific body movements and facial expressions, teachers use silence to show disapproval of their students, scold them, or try to restore order in class. The clear, silent, messages sent by teachers to their students often mean: 'pay attention to me' or 'what you're doing is unacceptable to me' (Gilmore, 1985: 147). The black students' silences accompanied by non-verbal behaviour in response to teacher directives or criticisms may not only signal compliance but may also signal defiance. Moreover, defiant ritualistic displays of silence ('stylised sulking') not only challenge authority, but may also constitute face-saving in front of the student's peers.

Teachers' silence always marks their dominant status over the students'. This is how they get and focus the students' attention, interrupt them, or relieve the moments of tension. Students' silence is subordinate, although it need not be submissive, as in the case of stylised sulking which is a sign of the students' reluctance to submit to their teachers' authority.

Gilmore's work centres on the cultural values attached to the manifestations of silence in a black neighbourhood elementary school in a US urban setting. Despite the inequality of status between students and teachers, 'the uses and meaning of their silences are actually very similar' (Gilmore, 1985: 154). The similarity lies in both teachers' and students' uses of silence in situations of negotiating power: exerting and displaying it in the case of teachers; defying and claiming it in the case of students. In either case great emotional involvement and tension are present.

Other studies confirm the idea that power relations in the educational setting are constructed and reproduced through silence. For example, Hilsdon (1996) demonstrates how teachers in a secondary (or high) school ELT classroom in Botswana use silence as a means of exerting power over pupils. Relatedly, Edwards and Redfern (1992) demonstrated how various silencing and gagging orders have been used to dominate minority children and languages in 'mainstream' educational settings in Britain (and in Canada). Kramarae and Treichler (1990) argue that in a male-dominated university seminar, females who

are dominated are literally silenced by the males. It is noteworthy that much research on language and gender in education suggests that boys are less silent than girls in the classroom (e.g. Swann, 1988, 1992). In early work in this area, for example, Spender (1982) and Clarricoates (1978) argued that, other things being equal, boys are allowed to talk more than girls, that they are allowed to choose topics which interest them more than girls, and that teachers pay more attention to boys (including addressing them more frequently as individuals rather than as a group as in the case of girls) in order to control their disruptiveness through display of attention and keeping them interested. However, the use of talk by boys to dominate and silence girls in a school context needs further investigation. In fact, Jenkins and Cheshire (1990: 274) observe that in their case study of 3 groups of mixed-sex pupils (5 persons in each group) although girls used more features of supportive and collaborative talk, 'boys did not use interruption to silence girls or to control the conversation'.

The main focus of the literature thus far has been on the control and affiliative functions of silence with little discussion about the facilitative functions of (teachers') silence in the classroom such as increased 'wait-time' (Rowe, 1974), slowing down the tempo of speech in student-led discussions (Kurtz, 1988; quoted in Schratz and Mehan, 1993:248), and so on. For instance, in an early study Rowe (1974) examined the enhancing role of increased silent periods for communication, called 'wait-times' and the quality of instruction in the classroom. Wait-time was operationally defined as the length of a pause between teacher question and student response, and between student question (or response) and next teacher response (or question). The findings of this study revealed dramatic changes on several measures of students' performance following the training of teachers to increase wait-time from 1 to 3 seconds. For instance, the length of student response increased from a mean of seven words to a mean of 27 words; the mean number of appropriate unsolicited responses increased from five to 17; the mean failure to respond dropped from seven to one; the mean incidence of evidence-inference statements increased from six to 14; the average incidence of soliciting, structuring, and reacting moves increased from five to 32; number of speculative responses increased from a mean of two to a mean of seven; the incidence of student-student comparisons of data increases; the frequency of student-initiated questions increases from a mean of one to a mean of four (Rowe, 1974: 221-2). Clearly, slowing down the rate of speech and increasing the lengths of pausing more than usual improved the quality of (classroom) interaction (see also Scollon & Scollon, 1987). Given that teaching and learning are primary objectives in the classroom setting the facilitative use of silence for learning and teaching is likely to account for the greatest variance in the use of silence in the classroom.

A broad conceptual framework for the study of silence in education has been outlined above based on the ethnography of communication looking at the notion of relative (un)markedness of silence and speech in relation to participants' characteristics, the situation in which they operate, their interactional goals and preferred schemas and beliefs for enacting communication.

The main issues which we would like to consider here then, are whether and to what degree is the classroom (and the whole of the educational process)

perceived as a silent domain. Is silence positively or negatively valued in the classroom? When is it perceived as a marked or unmarked form of communicative behaviour?

Our conviction is that the classroom, just as any other locale or domain, affects communication in such a way that there are varying forms of accepted/desired uses of talk and unacceptable/undesirable ones. Put differently, some silence(s) in the classroom are facilitative and highly preferred by teachers and pupils, and others will be rejected or perceived as disruptive, embarrassing or unpleasant. Naturally, teachers and pupils will often be in disagreement about which silences are attractive or offensive. This paper aims to investigate a few aspects of the use of silence in the classroom that may shed some light on the desirability and conditioning of silence among secondary school students.

With respect to the notion of markedness and unmarkedness, we believe that due to the different characteristics of participants in the classroom, for some silence will be marked while for others it will be unmarked. Given that, other things being equal, teachers enjoy greater status and power than pupils, it is their privilege to control speech and silence. Teachers can self-select to speak, nominate new speakers, choose to be silent or silence others with greater freedom than the pupils. Therefore, we might argue that in a classroom situation, in the teaching frame, talk is unmarked for teachers while silence is unmarked for the pupils. The teacher is expected to lecture and the pupils are expected to listen (in silence). Pupils can only talk when they are nominated by their teachers, which makes their speech desirable at times, but also rather extraordinary. However, as previous research has shown, pupils may also try to claim interactional power by defying teachers' authority by adopting silence as a marked form of behaviour, signalling refusal to talk when they are expected to do so (cf. stylised sulking above). In this particular situation teachers' talk when trying to discipline students may be viewed as marked.

Given the above, we set out to explore beliefs about silence in the classroom amongst secondary school students in rural, inner-city and suburban contexts in S. Wales. Based on the literature review above, our simplest expectations were that students would report higher levels of silence amongst students for learning than amongst teachers for teaching. In general, students were also expected to assign high value to silence in classroom contexts given the facilitative functions of silence discussed above. The relative markedness of silence was assessed by asking participants to make comparisons between the beliefs held by themselves (personally) and those they perceived their peers to hold. It was expected that self-beliefs would be perceived as being more consistent with the norm than those held by peers (cf. Weary, 1979). Expectations about the prevalence of beliefs about silence for purposes of controlling classroom interactions was unclear in the light of an equivocal research literature (see above). It was equally difficult to make predictions about the relationship between socio-demographic variables and silence given the paucity of previous research.

Participants

In total, 319 students aged between 14 and 16 (153 males, 162 females, four did not provide this information) were recruited from three schools in Wales. The

three schools which were selected (and agreed) to take part in the study can be described as rural (School 1, 73 participants) vs. urban (Schools 2 and 3), of which the latter were, generally speaking, 'inner city' (School 2, 114 participants) and 'suburban' (School 3, 132 participants). The socio-economic background of the students who took part in the study may be described as mainly 'working class' for the rural and inner-city schools, and 'middle class' for the suburban school. Rural and suburban school students were most homogeneous in terms of ethnicity with the vast majority of students being Welsh in these schools (rural: 85% Welsh, 14% English; suburban: 76% Welsh, 20% English). In contrast the inner city school had the highest proportion of students who reported ethnolinguistic backgrounds other than Welsh (54% Welsh, 7% English, 39% other backgrounds from countries in Asia, Africa and the Caribbean).

Design and Procedure

The main independent variable for the purposes of statistical analyses was the type of school (three levels: rural, inner city and suburban). Dependent variables comprised (i) beliefs about the general value of silence in classroom; (ii) beliefs about amount of silence by students and teachers; (iii) beliefs about amount of silence for control of classroom interaction; (iv) beliefs about amount of silence for learning and teaching. On all these measures participants also provided information about their own personal beliefs and those they perceived their peers to hold. Additionally, background information on age, ethnicity, parental occupation and level of education was obtained from participants.

A questionnaire (see Appendix) incorporating dependent measures was administered to high school students in the three Welsh schools. Most measures were obtained on 5 point Likert scales with higher ratings indicating greater use/positive beliefs. Participants were debriefed and thanked following completion of the task.

Results

Preliminary analyses were conducted to see if there were any global gender differences on any of the beliefs measures. These indicated no significant gender differences on any of the measures except for a marginal effect for gender concerning beliefs about the degree to which teachers used silence to control students, $t = 1.98$, $df = 310$, $p = 0.05$. Inspection of the means suggested that females ($m = 2.6$) felt that teachers used silence for control slightly more than males ($m = 2.3$). Given that there were no other differences, further analyses did not use gender as an independent variable.

Two-way ANOVAs were conducted with School Type (3 levels: rural, urban and suburban) as the between subjects factor and student beliefs (3 levels: self, other students and teacher) as the repeated measures factor on all belief measures (except the measure for the beliefs about general value of silence in the classroom which required a one-way ANOVA). *Post hoc* comparisons were conducted using the Newman-Keuls procedure where necessary.

Two repeated measures effects were obtained which were general in terms of being observed across all schools (i.e. no significant interaction effects or main effects for school were obtained in the following measures). First, a significant

effect for the repeated measures factor was obtained in the amount of silence believed to be used by self, other students and teachers, $F(2, 626) = 35.18, p < 0.001$. Regardless of school, *post hoc* comparisons ($p < 0.01$) revealed that students felt that they were generally more silent ($m = 3.1$) than either other students ($m = 2.7$) or teachers ($m = 2.6$) in the classroom (the latter two means were not significantly different from each other).

Second, a significant effect for the repeated measures factor was obtained in the amount of silence used specifically for learning and teaching, $F(2, 630) = 104.95, p < 0.001$. *Post hoc* comparisons revealed significant differences between all the relevant means (all significant at $p < 0.01$). Regardless of school, students felt that silence was used most often by themselves for learning ($m = 3.5$), significantly less often by other students for learning ($m = 3.3$), and least by teachers for teaching ($m = 2.6$).

Analyses of measures for beliefs about the use of silence for control in the classroom yielded two significant effects: (i) a significant interaction effect for the type of school (rural, urban and suburban) by the repeated measures factor (i.e. self, other student and teacher), $F(4, 614) = 4.81, p < 0.002$; (ii) a significant repeated measures effect, $F(2, 614) = 16.69, p < 0.001$. *Post-hoc* comparisons suggested that rural ($m = 2.7$) and inner city ($m = 2.7$) students felt that they used silence more frequently to disobey teachers than teachers used silence to control them ($m = 2.1$ and 2.4 , respectively in rural and inner city schools, $p < 0.05$ for both sets of comparisons). Suburban school pupils did not differentiate between student ($m = 2.6$) and teacher ($m = 2.5$) use of silence to control interactions in the classroom. Additionally there were no significant differences between the self and other students' beliefs.

Analyses of beliefs about the general value of silence in the classroom yielded a significant effect for school type, $F(2, 315) = 6.98, p < 0.002$. *Post hoc* comparisons amongst the means revealed that beliefs about the general value or importance of silence in the classroom context were higher in the rural ($m = 3.5$) and inner city ($m = 3.4$) schools (both working class) than in the suburban, middle-class school ($m = 3.2$).

These are overall differences and they say little about what specifically contributes to the use and value of silence in the classrooms. In other words, how do the facilitative and control functions of silence contribute (i) to the overall value of silence in the classroom, (ii) to students use of silence in the classroom, and (iii) to teachers use of silence in the classroom? Multiple Regression analyses were conducted on the data from the three schools separately with beliefs about the overall value of silence as well as students' and teachers' use of silence in the classroom as dependent variables and facilitative and control functions as the independent (predictor) variables. Since preliminary bivariate correlational analyses revealed a similar picture to the Multiple regression analyses only the outcome of multiple regression analyses is presented in Table 1.

Results in Table 1 show that only beliefs about 'Silence for student learning', i.e. facilitative silence, significantly predicted the amount of silence generally used by students in the classroom, and the general value assigned to silence in the classroom in all three types of schools. However, differences in predictors between schools were obtained in the use of silence by teachers. Specifically, in

Table 1 Predicting silence in the classroom using multiple regression analyses

Predictor	Dependent variables											
	Reg. Stats			Student silence			Teacher Silence			Value of silence		
	Rural School	Inner-city school	Suburban school	Rural school	Inner-city school	Suburban school	Rural school	Inner-city school	Suburban school	Rural school	Inner-city school	Suburban school
Students' use of silence for learning	B	0.34	0.22	0.27	-0.06	0.20	0.32	0.26	0.15	0.32	0.26	0.28
	sB	0.08	0.08	0.06	0.11	0.11	0.11	0.08	0.09	0.11	0.08	0.07
	β	0.49**	0.29**	0.39**	-0.07	0.16	0.15	0.34**	0.31**	0.34**	0.31**	0.34**
	<i>t</i>	4.36**	2.90**	4.64**	-0.57	1.72	1.66	2.92**	3.16**	2.92**	3.16**	3.88**
Teachers' use of silence for learning	B	-0.02	-0.03	-0.05	0.34	0.08	0.12	-0.04	0.12	-0.04	-0.02	0.01
	sB	0.08	0.06	0.05	0.11	0.09	0.07	0.11	0.09	0.11	0.06	0.06
	β	-0.03	-0.05	-0.09	0.38**	0.09	0.15	-0.05	0.15	-0.05	-0.04	0.01
	<i>t</i>	-0.22	-0.47	-1.09	2.98**	0.86	1.66	-0.38	0.86	1.66	-0.35	0.14
Students' use of silence for control	B	0.01	-0.07	0.09	0.21	0.14	-0.04	0.19	-0.04	0.19	-0.07	0.02
	sB	0.08	0.07	0.06	0.12	0.11	0.08	0.12	0.11	0.12	0.08	0.07
	β	0.02	-0.09	0.14	0.21	0.12	-0.04	0.19	-0.04	0.19	-0.08	0.03
	<i>t</i>	0.14	-0.92	1.60	1.83	1.33	-0.49	1.65	1.33	-0.49	-0.90	0.29
Teachers' use of silence for control	B	-0.01	0.01	0.00	-0.07	0.28	0.15	-0.09	0.15	-0.09	-0.02	0.03
	sB	0.08	0.07	0.06	0.12	0.10	0.08	0.12	0.08	0.12	0.07	0.07
	β	-0.01	0.01	0.00	-0.07	0.28*	0.17	-0.09	0.17	-0.09	-0.03	0.04
	<i>t</i>	-0.07	0.10	0.03	-0.56	2.82*	1.84	-0.73	1.84	-0.73	-0.33	0.40
Overall regression statistics	R	0.48	0.28	0.41	0.41	0.39	0.29	0.39	0.29	0.39	0.31	0.34
	R²	0.23**	0.08 ¹	0.17**	0.17*	0.15**	0.08*	0.15*	0.08*	0.15*	0.10*	0.12**
	R² adj.	0.19	0.04	0.14**	0.12	0.12	0.05	0.10	0.05	0.10	0.06	0.09

Notes: 1. $p = 0.075$ (marginally significant); * $p = 0.05$; ** $p = 0.01$.

B: Unstandardised coefficients; **sB**: Standard error of coefficients; **β**: Standardised coefficients; *t*: Student's *t* statistic; **R**: Multiple correlation; **R²**: Squared multiple correlation (shared variance).

the rural school the use of silence for teaching was the significant predictor. But in the inner city school the significant predictor was the use of silence for control by teachers. In the suburban school, the situation was more mixed with both facilitative and control functions being marginally associated with teachers' use of silence.

Discussion

Our overall finding that students feel that they are more silent in the classroom than their teachers is consistent with the earlier findings of the ethnographic and discourse analytic studies of classroom interaction research. As Gilmore states, 'the traditional classrooms I observed support the generalisation that most of the talk is by the teacher [...] and children's time is spent overwhelmingly in listening and reading' (Gilmore, 1985: 143). Likewise, Hilsdon (1996) comments on the general shortage of wait time in the classroom and quotes others who have shown that most teachers rarely wait for as long they perceive, and are often surprised when reading transcripts of the lesson that so little time was allowed (Chaudron, 1988; Brock, 1986; Long & Sato, 1983; see also Phillips, 1994).

In terms of our framework outlined above, we suggested that for pupils silence is the unmarked, underlying linguistic form in the classroom, while for teachers silence is marked and talk is unmarked. This discrepancy stems from the institutionalised power imbalance between teachers and pupils, teachers' right to control the discourse, privilege of self-nomination for another turn, granting speaking rights to pupils, demanding speaking turns from pupils and of allowing or demanding silence from them (see, e.g. Cazden, 1988; Mehan, 1978; Sinclair & Coulthard, 1975). Additionally, the primary function of teachers is to teach, and this activity is, at least in the western world, associated with lecturing, giving verbal instruction and explanation (see Philips, 1972 for an alternative view of the teaching process in the American Aboriginal context). Of course, we do see school discourse as situated action in which meaning is co-constructed by teachers and pupils alike (e.g. Edwards, 1993; Edwards & Mercer, 1987), however, in terms of the interactants' broad, pre-discursive goals which suit their needs of selfrealisation and alignment with others (Tracy & Coupland, 1990), the fundamental division between teacher and pupil talk is that of 'teaching' and 'learning', respectively.

Thus, because our finding is very general (cutting across all three schools, genders and ethnic groups), it allows us to believe that our distinction in the relative markedness and unmarkedness of silence with regard to teachers and students is supported by the students' expressed beliefs about the amount of their own and their teachers' use of silence. At a more conceptual level, this finding allows us to argue against a universalist, rigid view of silence as marked (Sobkowiak, 1997; cf. above). As we demonstrate here, the perception of the (un)markedness of silence depends to a great extent on participants' characteristics, role-relationships and their power relations.

Our results also confirm the relative importance of silence for learning rather than for teaching. Specifically, students' believed that they were more silent when learning than their teachers were when teaching. Of course, we realise that, new, progressive styles of learning introduced in many schools, involve students more

actively, engaging them verbally to a considerable extent, encouraging them to ask questions, form opinions, discuss ideas and voice their doubts. Given that our results suggest that silence is perceived to be important for learning, teachers' expectations for students to be verbally more active in the classroom may be a potential source of anxiety and conflict for some students (we touch upon the teachers' negative and positive beliefs about 'reticent' and 'voluble' students below).

Our findings about the general value of silence in the classroom suggested that students in the rural and inner-city schools valued silence in the classroom more than the students in the suburban school. One possible explanation for these findings may be based on the common belief that rural environments are relatively silent ('serene' or 'tranquil') with an absence of undesirable noise, while urban, especially inner-city, environments, are polluted by the invasive noise of motorcars, trains, industry, etc. (Rooney, 1987). In the context of these assumptions it could be argued that participants in the rural school valued silence in a manner that was convergent to the relatively silent nature of their environment. In contrast, inner-city students may have valued silence highly in a divergent manner as a reaction against their noisy environment. Future research in ecolinguistics (cf. Coupland & Coupland, 1997b; Alexander, 1993) may be designed to investigate the validity of such explanations.

A different possible explanation of this finding has got to do with the social make up of the three schools. The rural and the inner-city schools had predominantly working-class students while the suburban school had mainly middle-class students. Assuming that mainstream schooling in Britain largely subscribes to a white, middle-class ethos (e.g. Walkerdine, 1985; Edwards & Redfern, 1991), non-white and non-middle class children are likely to face difficulties concerning the educational process at several levels including the flow of talk and maintenance of silence in the classroom.

Obviously, our notion of the white, middle-class ethos does not imply a clear-cut distinction between all white, middle-class teachers, parents and pupils, and their non-middle-class, non-white counterparts. However, long-standing educational research in the UK and USA (e.g. Willis, 1977; Barton & Walker, 1983; Entwistle, 1978; Lawton, 1975; Brantlinger, 1993) gives compelling evidence of how the prevailing values and ideologies in education serve the dominating classes in (re)producing the social and cultural relations of capitalist economies. Additionally, Hemmings (1996: 30) points out that in an American, urban educational setting, the accepted idea of a 'model' student includes the adoption of 'the language, styles of discourse, values, manners, and aesthetic tastes associated with middle-class society and professionals'. Hemmings argues that for many working-class, Afro-American students who do aspire to achieve the status of a 'model' student, this means a conflict of having to find unique ways of conforming to two opposing ideals: that of the school and their peer group. On the other hand, those whose primary aim is not set on educational achievement are more likely to drop out from school than their white and/or middle-class counterparts.

Likewise, we are not suggesting here that there is only one 'white', 'middle-class' ethos across all of the educational system in the western world. There are,

no doubt, many, different competing ideologies, and students (as well as teachers and parents) embrace them in ways more complicated than our brief considerations allow us to mention. However, it seems reasonable for us to argue that, other things being equal, non-white and non-middle-class students face more conflict, anxiety and uncertainty in trying to conform to the school 'norm' than white and middle-class students.

Again, we refer to the work of Walkerdine (1985), who critically examined the problems of gender identity, conflict and silence in relation to the wider problems of an individual's class values and institutional norms. She argued that the need to define (and redefine) the boundaries of one's identity within the world of (middle-class dominated) institutions may be a silencing experience for working-class people. She illustrated this with data from several interviews including one with a male academic recounting schoolday memories. Coming from a working-class background, the interviewee explained how having to reinvent himself in a middle-class institutional context was an anxiety-provoking experience, which terrorised him and made him yearn for remaining 'invisible' (or silent):

It goes back to the instance I described in primary school, made to stand in front of the class and do up my shoe laces, stand up in front of the class and do up my tie and secondly, the, this school was, as I would not put it, in class terms, completely removed from the kind of experience I'd had in what had been a very localised primary school and so I didn't want to be drawn to attention in front of these people about whom I felt very edgy [...] in case I couldn't keep up that standard. (Walkerdine, 1985: 233)

Walkerdine's work may thus be useful in explaining results showing greater belief in the general importance of silence in the classroom among the rural and inner-city school children than suburban school children. Since both the former schools catered to working-class populations, what we may be unravelling here is working-class pupils' beliefs about silence in the classroom, which according to Walkerdine stem from the anxiety and conflict which is felt by the powerless individuals who are forced to redefine the boundaries of their identities by changing their practice in the face of authority. Consistent with this analysis, our rural and inner-city school pupils believed that they use more silence for controlling their teachers than their suburban counterparts.

Our findings showed that the source of teacher silence in the rural schools lay in the facilitative function of silence (i.e. teachers' using silence for teaching). However, we also observed that teachers' use of silence for control was the greatest predictor of their silence in the inner city school. This finding is consistent with Biggs and Edwards' (1991) research which suggested that white teachers often use silence with members of ethnolinguistic minorities who make up significant proportions of urban inner city classrooms in the UK. Although the lack of ethnic diversity in rural and suburban schools did not allow for analysis by school, it was possible to conduct supplementary analyses concerning differences between ethnolinguistic majorities (i.e. the Welsh) and minorities (non-Welsh) in the inner city school. Analyses yielded non-significant differences between Welsh and non-Welsh participants on all measures with the exception

of beliefs about teachers' use of silence in the classroom. Consistent with the findings of Biggs and Edwards (1991), non-Welsh participants ($m = 3.0$) in the inner city school reported that teachers used silence to a greater degree in the classroom than Welsh participants ($m = 2.5$; $t = 2.30$, $df = 91$, $p < 0.05$). These findings are supportive of earlier research suggesting that multiethnic diversity in the classroom may be accompanied by a 'culture of silence' (e.g. Edwards & Redfern, 1992).

In the present study analyses of gender-related differences in beliefs about the use of silence did not yield any significant differences except one, though previous studies had suggested that boys are less silent than girls in the classroom (e.g. Swann, 1988, 1992). The only significant finding between the sexes obtained in the present study was that relative to female participants, male participants believed that their teachers used silence for control to a lesser extent. This finding concurs with those of earlier studies (e.g. Spender, 1982) where teachers appeared to be more verbally attentive to boys than girls in order to control their disruptiveness.

General Discussion and Conclusion

We have reported here some preliminary findings from an exploratory study of secondary school students' beliefs about silence in the classroom. Our work, however tentative, corroborates the results of earlier ethnographic research which suggested that silence is often a mark of power imbalance and/or ambiguity of interpersonal relations and participation structures in interaction. Such claims find confirmation in what students report as their and their teachers' actual behaviour in the classroom. However, our findings add a new dimension to the existing ethnographic studies focusing on issues of class and ethnicity. Many types of silence need to be interpreted in critical terms proposed by Walkerdine (1985), where the confrontation of students' and teachers' values may work to the disadvantage of the former in that they are effectively silenced and rendered invisible.

From a conceptual point of view, our research demonstrates yet again (see Jaworski, 1993, 1997a) that, apart from being a linguistic reflex of the lack of communication, communication breakdown, feelings of negativity and conflict, silence is also a positive communicative item. In the case of this study it seems to be positively viewed as a facilitative device enabling students to gain access, organise and absorb new material.

One of the areas of future research resulting from this study should be teachers' beliefs about silence in the classroom. Our current work (Jaworski & Sachdev, in preparation) suggests that these may be very different from the students'. Preliminary analysis of a sample of references written by teachers for their sixth formers' applying for admission to universities through the Universities and Colleges Admissions System (UCAS) indicates that articulateness, volubility and general eagerness to talk are listed as very positive and desirable qualities in the students. Silence, reticence and quietness fare less well, and when mentioned, they are usually hedged about, softened and played down in a number of ways. Consider a few examples (all from 1996 UCAS applications of students applying for places in a humanities department of a British university).

In the first instance we quote teachers' mention of student talk (all names have been changed):

- (1) Anna is an articulate young woman whose unassuming nature belies a keen sense of humour and a positive approach to life.
- (2) All who have come into contact with Rebecca have commented on her articulacy, sense of commitment and enthusiasm for experience.
- (3) She is a mature, articulate young lady, who displays a great strength of character.
- (4) In her personal statement, Sheryl describes herself as 'effervescent and enthusiastic'. She is certainly lively, outgoing, and it is fun to be in her company. Both staff and peer-group enjoy her chatty, refreshing, and individual personality.

In the above excerpts, articulateness is paired with such positive qualities as *unassuming nature*, *keen sense of humour*, *sense of commitment*, *enthusiasm for experience*, *maturity*, *strength of character* and *fun*. Such characterisations of students are given in references whose task is predominantly to comment on and assess the academic qualities of students and their suitability for higher education. In contrast, teachers' mention of the students' silence is couched in relatively negative terms:

- (1) Paul is quietly spoken, but enjoys class discussion, and is prepared to maintain his point of view.
- (2) Although [Sophie] tends to be quiet in class, her research work is disciplined and she always has a thoughtful approach to the subject.
- (3) She is rather a quiet but clearly well-motivated student, with a very mature approach to her studies.
- (4) Orally, John can be a touch hesitant. When he does participate, however, he can always be relied upon to make valid, sensible contributions to class discussions and is a useful person to have in seminars. [Reference for a mature student]

Here, most references to quietness are contrasted with good academic achievement as exemplified by the use of *but* in (1), *although* in (2) and *and* in (3). Given that such testimonials are common-place, it is clear that teachers' beliefs (and values) about silence may not only differ from those of students', but also that they are likely to have a substantial impact on the academic success of students. In fact, a recent study of the 'quiet child' in a primary school context has been based on 'the premise that habitually quiet non-participatory behaviour is detrimental to learning' (Collins, 1996: 195). As far as we can agree that the conceptualisation of silence as withdrawal is clearly pedagogically undesirable and detrimental to the child's educational success, we have also pointed out that certain types of silence in the classroom need not be negatively stereotyped. Some types of silence in the classroom may be facilitative in the learning process while others may be used as a strategic, communicative resource by pupils and teachers in regulating the flow of communication in the classroom. Future empirical work may thus be designed to focus on how teacher and student values and beliefs about silence affect teaching and learning in the classroom. Our recent work

Appendix: Silence in the Classroom

(Questionnaire for secondary school students)

0. *Introductory*

1. How important is silence in the classroom generally?

not important

very important

I. *General: silence in the classroom.*

1. Students are generally silent in the classroom.

Never Rarely Sometimes Often Always

2. I am generally silent in the classroom.

Never Rarely Sometimes Often Always

3. Teachers are generally silent in the classroom.

Never Rarely Sometimes Often Always

II. *Control and power.*

1. Students are generally silent when trying to disobey teachers.

Never Rarely Sometimes Often Always

2. I am generally silent when trying to disobey my teachers.

Never Rarely Sometimes Often Always

3. Teachers are generally silent when trying to control students.

Never Rarely Sometimes Often Always

III. *Learning and teaching.*

1. Students generally use silence in learning and task solving.

Never Rarely Sometimes Often Always

2. I generally use silence in learning and task solving.

Never Rarely Sometimes Often Always

3. Teachers generally use silence in teaching.

Never Rarely Sometimes Often Always

About you

In part of the questionnaire, we would like to know a few things about you. Please write in your answers, circle the appropriate one or tick, as appropriate.

1. How old are you: _____ years
2. Are you: Male _____ or Female _____ (please tick)
3. What is your nationality: _____
4. What is your ethnic group: _____
5. What is your first language (i.e. the language that you learned to speak first as a child at home; if there is more than one language like that please state both)?

6. What other languages do you speak: _____

7. Did your father attend any of the following types of educational institutions (please tick as appropriate):
 primary/junior _____
 secondary/high school _____
 sixth form/further education college _____
 vocational above high school level _____
 polytechnic/university _____
8. Did your mother attend any of the following types of educational institutions (please tick as appropriate):
 primary/junior _____
 secondary/ high school _____
 sixth form/further education college _____
 vocational above high school level _____
 polytechnic/university _____
9. What job does/did your father do (state the most recent/current job)?

10. What job does/did your mother do (state the most recent/current job)?
