GROUP WORK, INTERLANGUAGE TALK AND SECOND LANGUAGE ACQUISITION *

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ABSTRACT
The use of group work in classroom second language learning has long been supported by sound pedagogical arguments. Recently, however, a psycholinguistic rationale for group work has emerged from second language acquisition research on non-native speaker/non-native speaker conversation, or interlanguage talk. Provided careful attention is paid to the structure of tasks students work on together, the negotiation work possible in group work makes it an attractive alternative to the teacher-led, "lockstep" mode, and a viable classroom substitute for individual conversations with native speakers.

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1. Introduction

For some years now, methodologists have recommended small group work (including pair work) in the second language classroom. In doing so, they have used arguments which, for the most part, are pedagogical. While those arguments are compelling enough, group work has recently taken on increased psycholinguistic significance due to new research findings on two related topics: (i) the role of comprehensible input in second language acquisition (SLA), and (ii) the negotiation work possible in interlanguage talk (non-native/non-native conversation). Thus, in addition to strong pedagogical arguments, there now exists a psycholinguistic rationale for group work in second language learning.

2. Pedagogical arguments for group work

There are at least five pedagogical arguments for the use of group work in SL learning. They concern group work's potential for increasing the quantity of language practice
opportunities, for improving the quality of student talk, for individualizing instruction, for creating a positive affective climate in the classroom, and for raising student motivation. We begin with a brief review of those arguments.

2.1. **Group work increases language practice opportunities**

In all probability, one of the main reasons for low achievement by many classroom SL learners is simply that they do not have enough time to practice the new language. This is especially serious when teaching large classes in those EFL settings in which students need to develop aural-oral skills, but is relevant in the ESL context, too.

From observational studies of classrooms, we know that the predominant mode of instruction is what might be termed the "lockstep", in which one person (usually the teacher) sets the same instructional pace and content for everyone, e.g. by lecturing, explaining a grammar point, leading drill work, or asking questions of the whole class. The same studies show that when lessons are organized in this manner, a typical teacher of any subject talks for at least half, and often for as much as two thirds of any class period (Flanders, 1970). In a fifty-minute lesson, that potentially leaves 25 minutes for the students. Since five minutes are usually spent on administrative matters, however, (getting pupils in and out of the room, calling the role, collecting and distributing homework assignments, etc.), and (say) five minutes on reading and writing, the total time available to students is actually more like 15 minutes. In an EFL setting, in a class of (say) 30 students in a public secondary school, this averages out at 30 seconds per student per lesson -
or just **one hour per student per year**. An adult ESL student taking an intensive course in the US does not fare much better. In a class of (say) 15 students meeting three hours a day, each student will have a total of only about one and a half hours of individual practice during a six-week program. Contrary to what some private language school advertisements would have us believe, this is simply not enough.

Group work cannot solve this problem entirely, but it can certainly help. To illustrate with the public school setting, suppose that just half the time available for individual student talk is devoted to work in groups of three, instead of to lockstep practice, in which one student talks while 29 listen (or not, as the case may be). This will change the total individual practice time available to each student from one hour to about ten and a half hours. While still too little, this is an increase of over a thousand percent.

2.2. **Group work improves the quality of student talk**

The lockstep limits not only the **quantity** of talk students can engage in, as indicated above, but also its **quality**. This is because teacher-fronted lessons favor a highly conventionalized variety of conversation, one rarely found outside courtrooms, wedding ceremonies and classrooms. In it, one speaker asks a series of "known information", or "display" questions, such as 'Do you work in the accused's office at 27 Sloan Street?', 'Do you take this woman to be your lawful wedded wife?', and 'Do you come to class at nine o'clock?' - questions to which there is usually only one correct answer, already known.
to both parties. The second speaker responds ('I do'), and, in the classroom, then typically has the correctness of the response confirmed ('Yes', 'Right', or 'Good'). Only rarely is genuine communication taking place. (For further depressing details, see, e.g. Fanselow, 1977; Hoetker and Ahlbrand, 1969; Long, 1975; Long and Sato, 1983; Mehan, 1979.)

An unfortunate but hardly surprising side-effect of this sort of pseudo-communication is that students' attention tends to wander. Consequently, teachers maintain a brisk pace in their questions, and try to ensure prompt and brief answers in return. This is usually quite feasible for the students since what they say requires little thought (the same question often being asked several times) and little language (mostly single phrases or short "sentences"). Teachers quickly "correct" any errors, and students equally quickly appreciate that what they say is less important than how they say it.

Such work may be useful for developing grammatical accuracy (although this has never been shown). It is unlikely, however, to promote the kind of conversational skills students need outside the classroom, where accuracy is often important, but where communicative ability is always at a premium.

Group work can help a great deal here. First, unlike the lockstep, with its single, distant initiator of talk (the teacher) and its group interlocutor (the students), face-to-face communication in a small group is a natural setting for conversation. Second, two or three students working together for (say) five minutes at a stretch are not limited to producing hurried, isolated "sentences". Rather, they can engage in
cohesive and coherent sequences of utterances, thereby developing discourse competence, not just (at best) a sentence grammar. Third, as shown by an earlier study (Long, Adams, McLean and Castaños, 1976), students can take on roles and adopt positions which in lockstep work are usually the teacher’s exclusive preserve, and so practice a range of language functions associated with those roles and positions. While solving a problem concerning the siting of a new school in an imaginary town, for example, they can suggest, infer, qualify, hypothesize, generalize, or disagree. In terms of another dimension of conversational management, they can develop such skills — also normally practiced only by the teacher — as topic-nomination, turn-allocation, focusing, summarizing and clarifying. (Some of these last skills also turn out to have considerable psycholinguistic importance.) Last, given appropriate materials to work with and problems to solve, students can engage in the kind of information exchange characteristic of communication outside classrooms, with all the creative language use and spontaneity this entails, and where the focus is on meaning as well as form. In all these ways, in other words, they can develop at least some of the variety of skills which go to make up communicative competence in a second language.

2.3. **Group work helps individualize instruction**

However efficient it may be for some purposes, e.g. the presentation of new information needed by all students in a class, the lockstep rides roughshod over many individual differences inevitably present in a group of students. This is
especially true of the vast majority of school children, who, typically, are placed in classes solely on the basis of chronological age. It can also occur in quite small classes of adults, however. Volunteer adult learners are usually grouped on the basis of their aggregate scores on a proficiency test. Yet, as any experienced teacher will attest, aggregate scores often conceal differences among students in specific linguistic abilities. Some students, for example, will have much better comprehension than production skills, and vice versa. Some may speak haltingly but accurately, while others are fluent, but make lots of errors.

In addition to this kind of variability in specific SL abilities, other kinds of individual differences that are ignored by lockstep teaching include: students' cognitive/developmental stage, chronological and mental age, sex, attitude, motivation, aptitude, personality, interests, cognitive style, cultural background, native language, prior language learning experience, and target language needs. In an ideal world, these are all differences which would be reflected, among other ways, in the pacing of instruction, in its linguistic and cultural content, in the level of intellectual challenge it poses, in the manner of its presentation (e.g. inductive or deductive), and in the kinds of classroom roles students are assigned.

Group work obviously cannot handle all these differences, for some of which we even still lack easily administered, reliable measures. Once again, however, it can help. Small groups of students can work on different sets of materials suited to their needs. Moreover, they can do so
simultaneously, thereby avoiding the risk of boring other students who do not have the same problem, perhaps because they speak a different first language, or do have the same problem, but need less time to solve it. Group work, that is, is a first step towards individualization of instruction, which everyone agrees is a good idea, but which few teachers or textbooks seem to do much about.

2.4. **Group work promotes a positive affective climate**

Many students, especially the shy or linguistically insecure, experience considerable stress when called upon in the public arena of the lockstep classroom. This stress is increased by the knowledge that they must respond accurately and, above all, quickly. Should they pause longer than about one second before beginning to respond or during a response, or (worse) appear not to know the answer, or make an error, research has shown that teachers tend to interrupt, repeat or rephrase the question, ask a different one, "correct", and/or switch to another student. (See, e.g. Rowe, 1974; White and Lightbown, 1983.) Not all teachers do these things, of course, but most teachers do so more than they realize or would want to admit.

In contrast to the public lockstep arena, a small group of peers provides a relatively intimate setting and, usually, a more supportive environment in which to try out embryonic SL skills. After extensive research in British primary and secondary school classrooms, Barnes (1973, p. 19) wrote of the small group setting:

"An intimate group allows us to be relatively inexplicit and incoherent, to change direction in the middle of a
sentence, to be uncertain and self-contradictory. What we say may not amount to much, but our confidence in our friends allows us to take the first groping steps towards sorting out our thoughts and feelings by putting them into words. I shall call this sort of talk 'exploratory'."

In his studies of children's talk in small groups, Barnes found a high incidence of pauses, hesitations, stumbling over new words, false starts, changes of direction, and of expressions of doubt ('I think', 'probably', etc.). This was the speech of children "talking to learn" — talking, in other words, in a way and for a purpose quite different from that in which they would commonly engage in a full-class session. There, the "audience effect" of the large class, the perception of the listening teacher as judge, and the need to produce the short, polished product would all serve to inhibit this kind of language.

Barnes draws attention to another factor:

"It is not only size and lack of intimacy that discourages exploratory talk: if relationships have been formalized until they approach ritual, this, too, will make it hard for anyone to think aloud. Some classrooms can become like this, especially when the teacher controls very thoroughly everything that is said." (1973, p. 19.)

Release from the need for accuracy at all costs, in other words, and entry into the richer and more accommodating set of relationships provided by small group interaction promotes a positive affective climate. This, in turn, allows development of the kind of personalized, creative talk for which most aural-oral classes are trying to prepare learners.

2.5. Group work motivates learners

Several advantages have already been claimed for group work. It allows for a greater quantity and richer variety of language practice, practice that is better adapted to individual
needs and conducted in a more positive affective climate. Students are individually involved in lessons more often, and at a more personal level. For all these reasons, and because of the variety it inevitably introduces into a lesson, it seems reasonable to believe that group work motivates the classroom learner.

2.6. Summary

Thus far, five benefits have been considered which are obtainable from the use of group work as, at the very least, a complement to lockstep instruction. To reiterate, improvements in the quantity and quality of student talk, in the degree of individualization of instruction, in the affective climate in classrooms, and in student motivation, are each important, as any teacher would agree. Together, it is suggested, they make a compelling argument.

In addition to pedagogical arguments, however, there now exists independent psycholinguistic motivation for group work in SL teaching. This takes the form of some recent work on the role of comprehensible input in SLA, and on the nature of non-native/non-native conversation. It is to this work that we now turn.

3. Group work: a psycholinguistic rationale

3.1. Comprehensible input in second language acquisition

A good deal of research has now been conducted on the special features of speech addressed to SL learners by native speakers (NSs) of the language or by non-native speakers (NNSs) who are more proficient in it than the learners are. Briefly, it
seems that this linguistic 'input' to the learner, like the speech caretakers address to young children learning their mother tongue, is modified in a variety of ways (among other reasons) in order to make it comprehensible. This modified speech, or "foreigner talk", is a reduced, or "simplified" form of the full adult NS variety, typically characterized by shorter, syntactically less complex utterances, higher frequency vocabulary items, and the avoidance of idiomatic expressions. It also tends to be delivered at a slower rate than normal adult speech, and to be articulated somewhat clearer. (For a review of the research findings on 'foreigner talk', see Hatch, 1983, chapter 9. For a review of similar findings on "teacher talk" in SL classrooms, see Chaudron, in press, and Gaies, 1983a.)

It has further been shown that NSs, especially those (like ESL teachers) with considerable experience at talking to foreigners, are also adept at modifying not just the language itself, but the shape of the conversations with NNSs in which the modified speech occurs. They help their non-native conversational partners to both participate and comprehend in a variety of ways. For example, they contrive to make topics salient by moving them to the front of an utterance, saying something like 'San Diego, did you like it?', rather than 'Did you like San Diego?' They use more questions than they would with other NSs, and employ a number of devices for clarifying both what they are saying and what the NNS is saying. The devices include clarification requests, confirmation checks, comprehension checks, and repetitions and rephrasings of their own and the NNSs'
utterances. (For a review of the research on conversational adjustments to NNSs, see Long, 1983a.)

When making these linguistic and conversational adjustments, it is important to note, speakers are concentrating on communicating with the NNS, i.e. their focus is on what they are saying, not on how they are saying it. As with parents and elder siblings talking to young children, the adjustments come naturally from trying to communicate. While their use seems to grow more sophisticated with practice, they require no special training.

A recent study by Hawkins (in press) has shown that it would be dangerous to assume that the adjustments always lead to comprehension by NNSs, even when they appear to have understood, as judged by the appropriacy of their responses. On the other hand, at least two studies (Chaudron, 1983; Long, in press) have demonstrated clear improvements in comprehension among groups of NNSs as the result of specific and global speech modifications, respectively. Other research has further demonstrated that the modifications themselves are more likely to occur when both native and non-native speakers start out a conversation with information the other needs in order for the pair to complete some task successfully. Tasks of this kind, called "two-way" tasks (as distinct from "one-way" tasks, in which only one speaker has information to communicate) result in significantly more conversational modifications by the NS (Long, 1980, 1983b). This is probably because the need for the NS to obtain unknown information from the NNS makes it important for the NS to monitor the NNS's level of comprehension, and hence, to adjust further
and further until it is adequate for the NNS to perform his or her part of the task.

There is also a substantial amount of evidence consistent with the idea that the more language that learners hear and understand, or the more comprehensible input they receive, the faster/better they learn. (For a review of this evidence, see Krashen, 1980, 1982; Long, 1981, 1983b.) Krashen has proposed an explanation for this, which he calls the 'Input Hypothesis', claiming that how learners improve in a SL is by understanding language which contains some target language forms (phonological, lexical, morphological or syntactic) which are a little ahead of their current knowledge, and which they could not understand in isolation. Ignorance of the new forms is compensated for by hearing them used in a situation, and embedded in other language that they do understand:

"A necessary condition to move from stage i to stage i+1 is that the acquirer understand input that contains i+1, where 'understand' means that the acquirer is focused on the meaning and not the form of the utterance."

(Krashen, 1980, p. 170)

Whether or not simply hearing and understanding the new items is both necessary and sufficient for a learner later to use them successfully is still unclear. Krashen claims that speaking is unnecessary, useful only as a means of obtaining comprehensible input. However, at least one researcher (Swain, in press) has argued that learners must also be given an opportunity to produce the new forms - a position Swain calls the "comprehensible output hypothesis". What many researchers do agree upon is that learners must be put in a position
of being able to negotiate the new input, thereby ensuring that the language in which it is heard is modified to exactly the level of comprehensibility they can manage.

As noted earlier, the research shows that this kind of negotiation is perfectly possible, given two-way tasks, in NS/NNS dyads. The problem for classroom teachers, of course, is that it is impossible for them to provide enough of such individualized NS/NNS opportunities for all their students. It therefore becomes essential to know whether two (or more) non-native speakers working together during group work can perform the same kind of negotiation for meaning. This question has been one of the main motivations for several recent studies of NNS/NNS conversation, often referred to in the literature as "interlanguage talk". The focus in these studies of NNSs working together in small groups is no longer just the quantity of language practice students are able to engage in, but the quality of the talk they produce in terms of the negotiation process.

3.2. Studies of interlanguage talk

An early study of interlanguage talk was carried out by Long, Adams, McLean and Castaños (1976) in intermediate level adult ESL classes in Mexico. The researchers compared speech samples from two teacher-led class discussions to speech from two small group discussions (two learners per group) doing the same task. To examine the quantity and quality of speech in both contexts, the researchers first coded moves according to a special category system designed for the study. "Quality" of speech was defined by the variety of moves and "quantity" of speech was defined by the number of moves. The findings were that
the amount and variety of student talk was significantly greater in the small groups than in the teacher-led discussions. In other words, students not only talked more but also used a wider range of speech acts in the small group context.

In a larger study, Porter (1983) examined the language produced by adult learners in task-centered discussions done in pairs. The learners were all NSs of Spanish. The 18 subjects (12 NNSs and 6 NSs) represented three proficiency levels: intermediate learner, advanced learner, and native speaker. Each subject participated in separate discussions with a subject from each of the three levels. Porter was thus able to compare interlanguage talk with talk in NS/NNS conversations, as well as to look for differences across learner proficiency level. Among many other findings were the following of relevance to the present discussion.

First, with regard to quantity of speech, Porter's results supported those of Long et al: learners produced more talk with other learners than with NS partners. In addition, learners produced more talk with advanced level than with intermediate level partners because the conversations lasted longer when advanced learners were involved.

Next, to examine quality of speech, Porter measured the number of grammatical and lexical errors and false starts, and found that learner speech showed no significant differences across contexts. This result regarding quality contradicts the popular notion that learners are more careful and accurate when speaking with NSs than when speaking with other learners.
Other analyses were in the area of interactional features of the discussions, where no significant differences were found in the amount of repair by NSs and learners. 'Repair' was a composite variable, consisting of confirmation checks, clarification requests, comprehension checks, and three communication strategies (verification of meaning, definition request, and lexical uncertainty). Porter emphasizes the importance of this finding, suggesting that it shows that learners are capable of the negotiation of repair in a manner similar to NSs, and that learners at the two proficiency levels in her study had equal competence to do repairs. A related and not surprising finding was that learners made more repairs of this kind with intermediate than with advanced learners.

On examining a subset of repair features, the communication strategies, more closely, Porter found very low frequencies of these "appeals for assistance" (Tarone, 1981). Additionally, learners made the appeals in similar numbers whether talking to NSs or to other learners (28 instances in four and a quarter hours with NSs, and 21 instances in four and a half hours with other learners.) She suggests that her data contradict the notion that other NNSs are not good conversational partners because they cannot provide accurate input when it is solicited. The point is, learners rarely ask for help no matter who their interlocutors may be. It would appear that the social constraints that operate to keep foreigner talk repair to a minimum (McCurdy, 1980) operate similarly in NNS/NNS discussions.

Further evidence of these social constraints is the low frequency of other-correction by both learners and NSs. Learners
corrected 1.5\% and NSs corrected 8\% of their interlocutors' grammatical and lexical errors. Also of interest is the finding that learners miscorrected only 0.3\% of the errors their partners made, suggesting that mis-corrections are not a serious threat in unmonitored group work.

The findings on repair were paralleled by those on another interactive feature labeled "prompts" (words, phrases or sentences added in the middle of the other speaker's utterance to continue or complete that utterance). Learners and NSs provided similar numbers of prompts. One significant difference, however, was that learners prompted other learners five times more than they prompted NSs; thus, learners got more practice using this conversational resource with other learners than they did with NSs.

Overall, Porter concludes that although learners cannot provide each other with the accurate grammatical and sociolinguistic input that NSs can, learners can offer each other genuine communicative practice, including the negotiation for meaning that is believed to aid SLA. Confirmation of Porter's findings has since been provided in a small-scale replication study by Wagner (1983).

Two additional studies of interlanguage talk are those by Varonis and Gass (1983) and Gass and Varonis (in press). In the first study, the researchers compared interlanguage talk in 11 non-native conversational dyads with conversation in four NS/NNS dyads and four NS/NS dyads. Like the learners in Porter's study, the NNSs were students from two levels of proficiency in an
intensive English program, but unlike Porter's subjects, these learners were from two native language backgrounds, Japanese and Spanish. Varonis and Gass tabulated the frequency of what they term "non-understanding routines", which indicate that there has been a lack of comprehension and which, via repair sequences, lead to negotiation for meaning.

The main finding in the Varonis and Gass study was a greater frequency of negotiation sequences in non-native dyads than in dyads involving NSs. Across the types of NNS pairs, most negotiation occurred when the NNSs were of different language backgrounds and different proficiency levels; the next highest frequency was in pairs sharing a language or proficiency level, and the lowest frequency was in pairs sharing both language background and proficiency level. On the basis of these findings, Varonis and Gass argue for the value of non-native conversations as a non-threatening context in which learners can practice language skills and obtain input made comprehensible through negotiation.

Building on this study, Gass and Varonis (1983) next examined negotiation by NNSs in two additional communication contexts: what Long (1980) calls "one-way" and "two-way" tasks. In the one-way task, one member of a dyad or triad described a picture which the other member(s) drew. In the two-way task, each member heard different information about a robbery, and the dyad/triad was to determine the identity of the robber. The participants, who were grouped into three dyads and one triad, were nine intermediate students from four different language backgrounds in an intensive ESL program.
In this study, Gass and Varonis looked for differences in the frequency of negotiation sequences across the two task types: the finding was that there were more indicators of non-understanding on the one-way task, but the difference was not statistically significant. They suggest that there may have been more need for negotiation on the one-way task because of the lack of shared background information involved. A second concern in the study was the role of the participant initiating the negotiation. The finding was not surprising: the student drawing the picture in the one-way task used far more indicators of non-understanding than the describer did. A third finding related to the one-way task was a decrease in the number of non-understanding indicators on the second trial: familiarity with the task seemed to decrease the need for negotiation, even though the roles were switched, with the students doing the describing and the drawing changing places.

As in their earlier study, Gass and Varonis argue that negotiation in non-native exchanges is a useful activity in that it allows the learners to manipulate input. When input is negotiated, they maintain, conversation can then proceed with a minimum of confusion; additionally, the input will be more meaningful to the learners because of their involvement in the negotiation process.

In another study of non-native talk in small group work, this time in a classroom setting, Pica and Doughty (in press) compared teacher-fronted discussions and small group discussions on (one-way) decision-making tasks. Their data were
taken from three classroom discussions and three small group discussions (four students per group) involving low-intermediate level ESL students. Their findings on grammaticality and amount of speech echo those of Porter (1983). Pica and Doughty showed that student production, as measured by the percentage of grammatical T-units per total number of T-units, was equally grammatical in the two contexts. Students did not pay closer attention to their speech in the teacher's presence. In terms of the amount of speech, Pica and Doughty found that the individual students they chose to study talked more in their groups than in their teacher-fronted discussions, confirming previous findings of a clear advantage for group work in this area.

Pica and Doughty also examined various interactional features in the discussions. They found a very low frequency of comprehension and confirmation checks and clarification requests in both contexts and pointed out that such interactional negotiation is not necessarily useful input for the entire class as it is usually directed by and at individual students. In the teacher-led context, it serves only as a form of exposure for other class members, who may or may not be listening, whereas such negotiated input directed at a learner in a small group is far more likely to be useful for that learner. Finally, an examination of other-corrections and completions showed those features to be more typical of group work than of teacher-led discussion, thus supporting the arguments for learners' conversational competence made by Porter and by Varonis and Gass.

In a follow-up study, Doughty and Pica (1984) compared language use in teacher-fronted lessons, group work (four
students per group) and pair work on a two-way task. Participants had to give and obtain information concerning the disposition of flowers to be planted in a garden. Each started with an individual felt-board displaying a different portion of a master plot. At the end of the activity, all participants were supposed to have constructed the same picture, which they compared against the master version then shown to them for the first time. The researchers compared their findings with those from their earlier study, in which a one-way task had been used, with students in both studies being of equivalent ESL proficiency.

Doughty and Pica found that the two-way task generated significantly more negotiation work than the one-way task in the small group setting, but found no effect for task type in the teacher-led lessons. ‘Negotiation’ was defined as the percentage of conversational adjustments over the total number of T-units and fragments, with clarification requests, confirmation checks, comprehension checks, self- and other-repetitions, both exact and semantic, constituting the adjustments examined. Clarification requests, confirmation checks and comprehension checks, in particular, increased in frequency (from a total of 6% to 24% of all T-units and fragments in the small groups) with the switch to a two-way task in the second study.

When task-type was held constant, Doughty and Pica found that significantly more negotiation work (again measured by the percentage of conversational adjustments to total T-units and fragments) occurred in the small group (66%) and pair work (68%)
than in the lockstep format (45%), but that the amounts in the small group and pair work did not differ statistically significantly from one another. With regard to the amount of speech in each format, more total talk was generated in teacher-fronted lessons than in small groups on both types of task, and more total talk on two-way than on one-way tasks in both teacher-fronted and small group discussions. However, the 33% increase in the amount of talk in the small groups was six times greater than the 5% increase provided by the two-way task in teacher-led lessons. Teacher-fronted lessons on a two-way task generated the most language use, and small group discussion on a one-way task produced the least. Doughty and Pica note, however, that the high total output in the teacher-fronted one-way discussions was largely achieved by close to 50% of the talk being produced by the teachers, whereas teachers could not and did not dominate in this way on the garden-planting (two-way) task. Thus, students talked more on the two-way task whether working with their teachers or in the four-person groups.

Doughty and Pica note that the percentage of negotiation work to total talk was lower in teacher-fronted lessons on both one-way and two-way tasks. This finding, they suggest, may indicate that students are reluctant to indicate a lack of understanding in front of their teacher and an entire class of students, and so do not negotiate as much comprehensible input in whole-class settings. This suggestion was supported by the researchers' informal assessment of students' actual comprehension, as judged by their lower success rate on the garden-planting task in the teacher-led than in the small group
discussions. Doughty and Pica conclude by emphasizing the importance not of group work per se, but of the nature of the task which the teacher provides for work done in small groups.

One other quantitative study of the ways learners are able to negotiate for meaning is that by Gaies (1983b). Gaies examined learner feedback to teachers on referential communication tasks. The participants were ESL students of various ages and proficiency levels and their teachers, grouped into twelve different dyads and triads. The students were encouraged to ask for clarification or re-explanation wherever necessary to complete their task of identifying and sequencing six different designs described by the teacher. On the basis of the audio-taped data, Gaies developed an inventory of learner verbal feedback consisting of four basic categories (responding, soliciting, reacting and structuring), and 19 subcategories. Of interest here are Gaies' findings that: (1) learners used a variety of kinds of feedback, with reacting moves being the most frequent and structuring moves the least frequent, and (2) learners varied considerably in the amount of feedback they provided.

Finally, several non-quantitative studies have contributed insights into interlanguage talk. Bruton and Samuda (1980) studied errors and error treatment in small group discussions based on various problem-solving tasks. Their learners were adults studying in an intensive course and were from a variety of language backgrounds. Their main findings were that (1) learners were capable of correcting each other
successfully, even though their teachers had not instructed them to do so, and (2) learners were able to employ a variety of different error treatment strategies, among which were the offering of straight alternatives and the use of repair questions.

In general, the learners' treatments were much like those of their teachers, except that the most frequent errors treated by the learners were lexical items, not syntax or pronunciation. Bruton and Samuda also noted that in ten hours of observation, there was only one case in which a correct item was changed to an incorrect one by a peer, and furthermore, students did not "pick up" many errors from each other, a finding also reported by Porter (1983). Bruton and Samuda make the point that while learners seem able to deal with apparent, immediate breakdowns in communication, several other more subtle types of breakdown did occur which the students did not (and probably could not) treat. They suggest that learners have explained to them the various kinds of communication breakdowns that can occur, and be taught strategies for coping with them, and also that they be given explicit error-monitoring tasks during group work.

Somewhat related to this work on error treatment is the analysis by Morrison and Low (1983) of monitoring in non-native discussions. Morrison and Low point out that their subjects not only monitored their own speech, self-correcting for lexis, syntax, discourse, and truth value without feedback from others and in a highly communicative context, but also monitored the output of their interlocutors. This interactive view of
monitoring, of making the struggle to communicate "a kind of team effort" (p.243) includes the kind of negotiation that Varonis and Gass are describing. The transcripts presented by Morrison and Low, however, show a wide divergence in the extent to which groups pay attention to and provide feedback on their members' speech. While some groups seem to be involved in the topic and help each other out at every lapse, other groups appear inattentive to the speaker's struggles to communicate, and are totally absorbed in their own thoughts.

3.3. Summary of research findings

The research findings reviewed above appear to support the following claims.

3.3.1. Quantity of practice

Students receive significantly more individual language practice opportunities in group work than in lockstep lessons (Long et al, 1976; Pica and Doughty, in press; Doughty and Pica, 1984). They also receive significantly more practice opportunities in NNS NNS than in NS NNS dyads (Porter, 1983), and more when the other NNS is of higher rather than the same SL proficiency (Porter, 1983), and more on two-way than on one-way tasks (Doughty and Pica, 1984).

3.3.2. Variety of practice

The range of language functions (rhetorical, pedagogic and interpersonal) practiced by individual students is wider in group work than in lockstep teaching (Long et al, 1976).

3.3.3. Accuracy of student production

Students maintain the same level of grammatical
accuracy in their SL output in unsupervised group work as in "public" lockstep work conducted by the teacher (Pica and Doughty, in press). Similarly, the level of accuracy is the same whether the interlocutor in a dyad is a native or a non-native speaker (Porter, 1983).

3.3.4. Correction

The frequency of other-correction and completions by students is higher in group work than in lockstep teaching (Pica and Doughty, in press), and not significantly different with NS and NNS interlocutors in small group work, being very low in both contexts (Porter, 1983). There seems to be considerable individual variability in the amount of attention students pay to their own and others' speech, however (Gaies, 1983b; Morrison and Low, 1983), and a suggestion that training students to correct each other can help remedy this (Bruton and Samuda, 1980). During group work, learners seem more apt to repair lexical errors, whereas teachers pay an equal amount of attention to errors of syntax and pronunciation (Bruton and Samuda, 1980). Learners almost never mis-correct during unsupervised group work (Bruton and Samuda, 1980; Porter, 1983).

3.3.5. Negotiation

Students engage in more negotiation for meaning in the small group than in teacher-fronted, whole-class settings (Doughty and Pica, 1984). NNS NNS dyads engage in as much or more negotiation work than NS NNS dyads (Porter, 1983; Varonis and Gass, 1983). In small groups, learners negotiate more with other learners who are of different SL proficiency than themselves.
(Porter, 1983; Varonis and Gass, 1983), and more with learners from different first language backgrounds (Varonis and Gass, 1983).

3.3.6. Task

Previous work on NS NNS conversation has found two-way tasks to produce significantly more negotiation work than one-way tasks (Long, 1980). The findings for interlanguage talk have been less clear, with one study (Gass and Varonis, in press) not finding this pattern, and another (Pica and Doughty, in press) appearing not to do so, but actually not employing a genuine two-way task. The latest study of this issue (Doughty and Pica, 1984), which did use a two-way task, i.e. one requiring information exchange by both or all parties, supports the original claim for the importance of task-type, with the two-way task significantly increasing the amount of talk, the amount of negotiation work, and impressionistically, the level of input comprehended by students, as measured by their task achievement. Lastly, it seems that familiarity with a task decreases the amount of negotiation work it produces (Gass and Varonis, in press).

4. Implications for the classroom

The research findings on interlanguage talk are generally supportive of the claims commonly made for group work. Most obviously, increases in the amount and variety of language practice achievable through group work are clearly two of its most attractive features, and must appeal to teachers of almost any methodological persuasion.
The fact that the level of accuracy maintained in unsupervised groups has been found to be as high as that in teacher-monitored lockstep work should help to allay fears that lower quality is the price to be paid for higher quantity of practice. The same is true of the finding that monitoring and correction occur spontaneously (although variably) in group work, and that it seems possible to improve both through student training in correction techniques, if that is thought desirable. The apparently spontaneous occurrence of other-correction probably diminishes the importance sometimes attached to designation of one student in each group as leader, with special responsibility for monitoring accuracy. However, group leaders may still be needed for other reasons, such as ensuring that a task is carried out in the manner the teacher or materials writer intended. (See Long, 1977, for further details concerning the logistics of organizing group work in the classroom.)

For many teachers, of course, concern about errors occurring and or going uncorrected has diminished in recent years, since second language acquisition research has shown errors to be an inevitable, even "healthy" part of language development. In fact, some teachers have been persuaded by theories of second language acquisition, such as Krashen's Monitor Theory, and or by new teaching methods, such as the Natural Approach, to focus exclusively on communicative language use from the very earliest stages of instruction. Many others, while not abandoning attention to form altogether, are eager to ensure that their lessons contain sizable portions of
communication work, even though this will inevitably involve errors.

For these latter groups of teachers, the most interesting findings of the research on interlanguage talk do not concern quantity and variety of language practice, nor accuracy and correction, but rather, the negotiation work in NNS/NNS conversation. The finding (in each of five studies which have looked at the issue) that learners can accomplish as much or more of this kind of practice working together as with a NS is very encouraging.

The related finding that students of mixed SL proficiencies tend to obtain more practice in negotiation than same proficiency dyads suggests that teachers of mixed ability classes would do well to opt for heterogeneous (over homogeneous) ability grouping, unless additional considerations dictate otherwise. The fact that greater amounts of negotiation tend to be achieved by students of mixed native language backgrounds also suggests grouping of students of mixed language backgrounds together where possible. For many teachers of multilingual classes, this would in any case have seemed preferable as one means of avoiding the risk of developing "classroom dialects" intelligible only to speakers of a common first language - a phenomenon also avoidable through students having access to speakers of other target language varieties in lockstep work or outside the classroom.

The finding concerning mixed first language groups does not mean, of course, that group work will be unsuccessful in monolingual classrooms, as pertain in many EFL situations. To
reiterate, the research shows clearly that the kind of negotiation work of interest here is also very successfully obtained in groups of students of the same first language background. Things simply seem slightly better still with mixed language groups.

Finally, the research on interlanguage talk to date has been somewhat mixed with regard to its findings on claimed advantages for two-way over one-way tasks in NS NNS conversation. However, recent work on this issue seems to indicate that the claims are probably justified in the NNS NNS context, too.

Further, it appears to be the combination of small group work (including pair work) with two-way tasks that is especially beneficial to learners in terms of the amount of talk produced, the amount of negotiation work produced, and the amount of comprehensible input obtained.

In this light, teachers might think it desirable to include as many two-way tasks as possible among the activities students carry out in small groups. It is obviously useful to have students work on one-way tasks, such as telling a story (the listener does not know) or describing a picture (which the listener attempts to draw on the basis of the description alone). Because one participant starts with all the information in such tasks, however, the other group member(s) has/have nothing to "bargain" with, and this lack of information needed by the speaker limits the listener's ability to negotiate the way a conversation develops. (Some one-way tasks become monologues rather than conversations, in fact.)
In conclusion, the writers are encouraged by the early findings of what it is hoped will develop as a coherent and cumulative line of classroom-oriented research: studies of interlanguage talk. Together with theoretical advances concerning the role of input in second language acquisition, they have already contributed a psycholinguistic to the existing pedagogic rationale for group work in the SL classroom.

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