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Clause relations and macro patterns: cohesion, coherence and the writing of advanced ESOL students

THE WRITING OF EVEN ADVANCED ESOL STUDENTS CAN BE DIFFICULT to follow. This partly results from learners' difficulties in making their writing cohesive and coherent. The use of conjunctions contributes to cohesion and teachers often focus on these devices in writing lessons, but students may misuse and overuse these cohesive devices (Field 1994). One major source of coherence derives from the relationship of ideas. The use of sequences typical in English written text, such as hypothetical—real (McCarthy and Carter 1994), can help the reader infer the nature of a relationship. These sequences have been called *clause relations* (Winter 1977, 1994; Hoey 1994) and *macro patterns* (McCarthy and Carter 1994). This article discusses problems nonnative speakers of English may have in making their written texts cohesive and coherent and describes some instructional activities designed to help students achieve greater cohesion and coherence in their writing.

Cohesive devices

To make sense of a text, the reader needs to understand the connections between its parts. One way writers help the reader to do this is to make explicit signals of the type of relations between parts. One type of signal is conjunctions. The terms *conjunction* and *conjunctive devices* derive from Halliday and Hasan's (1976) description of text-internal cohesion in English. They categorised these devices into four groups to express additive, adversative, casual, and temporal relations between sentences. Conjunctions reflect the writer's positioning of one point in relation to another in creating a text. For example, the conjunctions *however* and *despite the fact* that can be used to reflect adversative relations. These conjunctions are highly teachable and feature in many published English language teaching materials, where they are often referred to as "connectives." Students often find them relatively easy to learn and start using them in their writing from early on.

Writers also make their writing more cohesive by using lexical ties, such as the use of word repetition, synonyms and antonyms, and superordinates. The general tendency in English language teaching has been to concentrate on teaching conjunctions rather than on lexical cohesion (Liu 2000). Liu offers a number of teaching suggestions to remedy this.

Teaching conjunctions sometimes leads students to overuse or misuse them. A study of student writers of English in Hong Kong showed that these students overuse conjunctions in contrast to native speakers (NS) who tend to use them sparingly (Wilcoxon and Hayward 1991). Another study comparing native speakers' and non-native speakers' (NNS) use of cohesive conjunctions in an essay task found that the NS and NNS students used an average of 2.9 and 5.3 cohesive conjunctions, respectively (Field and Yip 1992). The highest number, used by one of the Cantonese-speaking participants, was 15 conjunctions in one essay. The greatest difference between the two student groups in the use of conjunctions was found in the choice of devices used. The NS used a narrow range of devices (e.g., *also, however, therefore, and, so,* and *but*). The NNS used a far greater range, including some items (*moreover, besides, on the other hand*) that had not been used at all in the writing of the NS.

I would like to illustrate this problem with examples from the writing of two advanced NNS students. Student A originates from Hong Kong and has Cantonese as her first language. Student B originates from Taiwan and has Taiwanese as her first language. Both students are writing about research in English language teaching.

Student A

1. The researcher conducted one of the first L2 writing process studies. The researcher had two Spanish speaker subjects who composed aloud four times and were interviewed twice. Besides the effective behaviours, she identified some ineffective behaviour, among which include using the L1 for pre-writing and switching back and forth between the first and second language.

2. While one group (Group A) will be exposed to one treatment, the other group (Group B) will be exposed to the other treatment. However, each group will be exposed to both treatments twice altogether in the study.

In example 1 from Student A, we see the misuse of *besides*. There is no additive logical connection between the first and second sentence in this excerpt, and the conjunction *besides* is redundant and misleading. If I reformulated this, I would write *The researcher identified effective and ineffective behaviours. Ineffective behaviours included using the L1 for prewriting.…* In example 2 from Student A, the same kind of problem is seen. The conjunction *however* is misused. This conjunction signals contrast and is misleading because there is no contrast of ideas between the first and second sentences; the ideas in the second sentence are simply the next step in the research procedure. This excerpt could be improved by deleting the conjunction.

Student B

1. It has become increasingly clear that the teaching of L2 words and phrases isolated from their sociocultural context may lead to the production of language use which does not achieve its communicative purposes. In addition, knowing types of speech acts and the rules for their realisation are essential to L2 learners.

2. Both in American English and New Zealand English, agreement is the most common response type. However, studies

show agreement response included other strategies, such as: appreciation token, comment acceptance, praise upgrade, comment history, reassignment, and return compliment.

Student B has problems similar to Student A. In example 1, *in addition* is used although there is no additive type link between ideas. In example 2, *however* is used although there is no contrast of ideas between the first and second sentences.

The organization of ideas

Coherence in a text lies primarily in the ideas and content, not in the use of conjunctive devices. It is the order of ideas and how this order expresses the relationship between ideas that is important. An experimental study by Crewe, Wright, and Leung (1985) involved two versions of an academic text: one version had the original conjunctions left in and the second version had the conjunctions deleted. Two groups of students read the texts and answered the same set of comprehension questions on the content of the texts. No statistical difference was found in the level of comprehension between the two groups. The researchers concluded that conjunctions were less important for linking ideas in text than they had previously thought.

The use of conjunctions is an important way writers in English signal the links between ideas. But before considering whether to use them and which ones to use, writers need first to consider how their ideas are related and whether they are sequenced to reflect the nature of the relationship. Student writers have problems with this. Teaching conjunctions sometimes treats the symptoms of the problem rather than addressing the problem itself.

Macro patterns and clause relations are terms that refer to the underlying structures that different texts and text types have in common. According to Bloor (1990) readers or listeners make sense of a text by following the connections between its parts, that is, by looking for macro patterns and clause relations. There are certain patterns by which texts are typically sequenced and typical ways that one clause, sentence, or part of a text is interpreted in relation to another. To illustrate this concept, I have chosen sentences about interest rates. Look at the two sentences in the box below and consider how you interpret the second sentence in relation to the first. What overt signalling of this relationship between the two sentences could have been used?

> Interest rates on mortgages have risen to over 10%. The number of house sales is on a downturn.

The second sentence would probably be interpreted as a consequence of the event in the first sentence. This relationship could be overtly signalled with a conjunction, such as, *in consequence*, *thus,* or *therefore*. Even without overt signalling, however, the reader can infer this relationship.

Winter (1977, 1994) claims that there are two main ways that we interpret one sentence, clause, or utterance in relation to another: matching relation and logical sequence relation. Table 1 summarises Winter's system of analysis of clause relations.

Only two example sentences in the table have conjunctions as signalling words, however, the semantic relation exists whether or not it is overtly signalled. Signals spell out the nature of the relationship, but signalling is optional. Having an underlying logic of ideas that readers will easily recognise is essential.

Winter also identifies certain nouns, verbs, adjectives, and adverbs that function to signal the relationship of ideas (1977). They include *effects, result,* and *differences* and have an 'anticipation function' in that seeing one leads the reader to anticipate upcoming clause relations and therefore the relationship of ideas. In the example below, use of the word *difference* helps the reader anticipate that the upcoming text will involve a contrast of ideas.

> There is an important difference between a fixed and a floating home loan. A fixed loan is set at a rate and this stays unchanged for a set number of years. A floating mortgage rate can go up or down according to economic trends.

Hoey (1979, 1994) argues that there are pervasive macro patterns found in a number of expository texts. Two macro patterns are illustrated in Table 2.

CLAUSE RELATIONS		
Matching relation		
Sub-types	Relationship of ideas	Example
Compare	What is true of X is true of y	Mortgage rates fluctuated throughout the year in U.K. This was seen in New Zealand and Australia also.
Contrast	What is true of X is not true of Y	People with large mortgages will feel the effect immediately. Those with small mortgages will experience little effect in the short term.
Hypothetical–real	X is not true Y is true	Many believe that house ownership is a secure form of investment. In fact, it is little more secure than other forms of investment.
Logical sequence relation		
Sub-types	Relationship of ideas	Example
Cause–consequence	Y is the consequence of X	Mortgage rates are expected to remain high throughout the year and the number of new mortgages is expected to drop to pre-1999 figures.
Instrument–achievement	By doing X, Y occurs	Take out a 'fast-track' repayment scheme. This way you can greatly reduce the amount of interest you pay to the bank.

Table 1. Analysis of clause relations

Hoey (1994) identifies two other macro patterns pervasive in English: *general–particular*, i.e., a general statement followed by a specific example, and *preview–detail*, i.e., idea and then details. In reality, sometimes it can be difficult to distinguish between these two patterns. The following sample is an excerpt taken from a newspaper article on gardening. The excerpt can be seen as either of these two macro structures.

> Several things prevent bougainvilleas from flowering:
>
> • Too much fertiliser can stimulate excessive leaf growth at the expense of flowers.
> • Too much water can force leaf growth in preference of flowers.
> • Windy conditions can slow flower production tremendously, particularly in young plants.
>
> from *New Zealand Herald*
> May 13, 1998, p. 23

Instructional activities

ELT teachers can help advanced ESOL students gain more coherence in their writing by drawing students' attention to typical clause relations and macro patterns in English. To help my students with problems in organising their ideas in written English, I have devised some practical teaching activities. The objective of each activity is two-fold: to draw students' attention to typical patterns in English texts and to emphasize the need for writers to consider how their ideas are related and how to sequence ideas to reflect the nature of the relationships.

1. Raising awareness of patterns

This type of activity requires the teacher to bring in examples of texts that show coherence and cohesion. The students read through the text individually, then the teacher leads the class in discussion of the patterns in the text and how one part is related to another.

When using the sample text about polar bears (see below), I ask students what has been

the conventional thought about animals adopting offspring (in sentence 2) and what the new idea is (in sentence 3). I then highlight the sequence of sentences 2 and 3 as a hypothetical–real pattern, and ask about other relationships between sentences. For example, the relationship between sentence 1 and the set of sentences 2, 3 and 4 is preview–detail pattern, and the relationship between sentences 3 and 4 is the consequence–cause pattern. Following this, I ask students to suggest devices that can be used to overtly signal the relationship of ideas, such as the phrase *The reason for this is that* before sentence 4. I also point out that the text uses only one conjunction, but that we as readers are able to infer how the ideas are related.

Example: Polar Bears

1. Polar bear mothers may accidentally adopt other cubs because they are not very good at recognising their own.
2. Evolutionary theory suggests that animals should adopt offspring they are related to, such as nephews or nieces.
3. But a genetic study of polar bears by Nick Lunn of the Canadian Wildlife Service in Edmonton, Alberta, and his colleagues revealed that cubs recently adopted in the wild were completely unrelated to their adoptive mothers.
4. Polar bears are usually solitary and their ability to identify their cubs might not be very well recognised, the researchers suggest.

from *New Scientist*
May 20, 2000, p. 13

2. Reformulating

In this type of activity, I take the sentences from a text and separate them, often rearranging the order. The students are then asked to combine ideas by joining two or more sentences together and to articulate the nature of the relationship between them.

Example: Vitamin C Warning

1. Among smokers thickening rises fivefold.
2. There is bad news for the countless health fanatics who take vitamin C.
3. James Dwyer from the University of Southern California suggests avoiding very high doses of vitamins.
4. A study of 573 middle-aged men and women found that those taking 500 milligrams of vitamin C supplement per day, the equivalent of 10 oranges, had 2.5 times as much thickening of their arteries as people who took no supplements.
5. In high doses Vitamin C may clog up arteries, the American Heart Association meeting in San Diego heard last week.

Here are some combinations suggested by students:

• Sentences 3 and 4 form a consequence–cause pattern

James Dwyer from the University of Southern California suggests avoiding very high doses of vitamins. A study of 573 middle-aged men and women found that those taking 500 milligrams of vitamin C supplement per day, the equivalent of 10 oranges, had 2.5 times as much thickening of their arteries as people who took no supplements.

• Sentences 2 and 5 form a preview–detail pattern

There is bad news for the countless health fanatics who take vitamin C. In high doses

MACRO PATTERNS

Type	Pattern	Example
Cause–consequence	Situation	I was on sentry duty.
	Problem	I saw the enemy approaching.
	Response	I opened fire.
Instrument–achievement	Result–evaluation	I beat off the attack.

Table 2. Macro patterns

Vitamin C may clog up arteries, the American Heart Association meeting in San Diego heard last week.

- Sentences 4 and 1 form a contrast
  A study of 573 middle-aged men and women found that those taking 500 milligrams of vitamin C supplement per day, the equivalent of 10 oranges, had 2.5 times as much thickening of their arteries as people who took no supplements. Among smokers thickening rises fivefold.

Following this reformulating and combining activity, students are shown the original text to see how ideas were organised and any overt signalling used.

Original text: Vitamin C Warning

Bad news for the countless health fanatics who take vitamin C. In high doses it may clog up arteries, the American Heart Association meeting in San Diego heard last week. A study of 573 middle-aged men and women found that those taking 500 milligrams of vitamin C supplement per day, the equivalent of 10 oranges, had 2.5 times as much thickening of their arteries as people who took no supplements. Among smokers thickening rose fivefold. James Dwyer from the University of Southern California, who led the study, suggests avoiding very high doses of vitamins.

from *New Scientist*
March 11, 2000, p. 21

3. Creating text

Ultimately my goal is for students to be able to create their own texts that are coherent and cohesive and have ideas sequenced in such a way that the relationship between the ideas is evident to the reader. To work towards this goal, McCarthy and Carter (1994) suggest using blank frames. The following activity illustrates how I use frames in my teaching. This example concerning trees is taken from a unit on innovation.

I ask students to read about a piece of new technology that they find interesting in the *New Scientist* journal. They are given a blank frame with the headings Situation, Problem, Response, and Evaluation. While reading the article they have chosen from *New Scientist*, they write notes under each heading based on their reading and understanding of the text.

Example: Tree Standing

If trees are rotten inside, loggers often leave them standing for wildlife to nest in. So researchers at MIT and the University of Alaska are jointly patenting a non-destructive way of checking the health of trees. Several belts containing ultrasonic transceivers are slung around the tree, at spaced intervals. The transceivers generate pulses in a known sequence, and sensors detect when they arrive. The resulting pattern gives a 3D image of the interior of the tree.

from *New Scientist*
March 4, 2000, p. 9

Example: A completed frame

Situation	Many trees die of diseases.
Problem	Diseases often start internally and the trees are rotten inside initially.
Response	Researchers at MIT and University of Alaska are developing an ultrasonic belt that is slung around a tree. The ultrasonic belt contains transceivers. The transceivers make a pulse. The pulse makes a pattern showing an image of the tree's interior.
Evaluation	Many trees could be saved if the disease is caught early enough. My personal opinion is that it will be expensive and probably best used for rare tree species.

Afterwards, students report to the rest of the class on the innovation they have read about. They use their frame with the notes they made to help them sequence and signal relationships of ideas in their oral report. Later, they write a report on the article, again using the frame to help them with the organisation of content.

4. Editing

In this activity students review their writing with particular emphasis on the sequenc-

ing of ideas and the signalling of relationships between them. When my advanced students have done an initial draft of some writing, for example an essay or a report, I ask them to review it to locate where they have used conjunctions. They then reread their draft and mentally remove the conjunctions, then ask themselves *How are these two ideas (clauses, sentences, units) related?* If they find it difficult to articulate the nature of the relationship, I advise them to consider again one or more of the following solutions:

- include more information or remove the idea(s)
- change the sequence of ideas
- use a signalling device (conjunction)
- remove the signalling device because it is misleading or change it to a more accurate one

Conclusion

It is important that writing be coherent as well as cohesive. English language teachers have often emphasised teaching conjunctions (cohesive devices), but they can also usefully focus on coherence by teaching learners to sequence ideas logically. To work towards this goal, teachers should help learners understand the typical clause relations and macro patterns found in English texts. The teaching activities outlined in this article have been developed to help learners gain more insight into some of the possibilities for combining ideas and information in written English. It is hoped that these activities will provide teachers with some ideas for developing their own activities to promote coherence in students' writing.

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