Causal Intersentential Relations: 
A Discourse as Process View

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ABSTRACT

This corpus-based study shows an innovative way of analysing causal intersentential relations (ISR's) in English, taking a global discourse view and moving beyond the limitations of previous studies. This stance has helped to a) identify the existence of alternative means of signalling causal ISR's, besides conjuncts, such as: a great proportion of integrated intrinsic signals, certain peripheral signals and extrinsic signals; and b) to establish a wide variety of factors which are vital for an adequate understanding of this aspect of discourse, but which have hardly been considered in previous accounts. Some of these factors refer to: 1) pragmatic aspects of the signalling of ISR's; 2) the modifications to basic causal ISR meaning through the use of integrated signals; 3) how the explicit signalling of causal ISR’s is intimately intermingled with questions of the macrostructuring of discourse; and 4) the prospective nature of some signals.

1. INTRODUCTION

The purpose of this paper is to present an investigation into the expression of causal intersentential relations (henceforth ISR’s) as they appear in an argumentative text in English. A typical expression of causal ISR’s is, according to my data, the conjunct so. Although signals like so may also

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occur intrasententially, only their intersentential use will be considered in the present study.

Two main points will be developed. First, some background information about the study will be given: the reasons why it has been carried out, its object of study, the theoretical approach and method adopted, and the corpus analysed. And second, an outline of the results that this approach has revealed will be sketched.

2. RELEVANCE OF THE STUDY

The present descriptive study originates from the realization of two main facts. On the one hand, there are very few monographic studies of the expression of causal ISR's today and, on the other hand, they generally offer a very limited view of the complexity of the phenomenon in authentic discourse. But in what way?

First, there are scant systematic studies of causal ISR's in authentic corpora. There is still too much reliance on intuitions, a characteristic typical of previous linguistics. As Sinclair's work on the COBUILD project at the University of Birmingham has shown beyond any margin of doubt, native-speaker intuitions about the possible uses of words are extremely unreliable. And such intuitions are likely to be even more unreliable at the level of intersentential relations, where subtle semantic and especially pragmatic differences abound.

A direct consequence of this lack of systematic corpus analysis is that the statements about the use of the various signals of the presence of these relations do not distinguish between text types (Werlich, 1983) or between genres (Swales, 1990), not even between the basic oral and written modes. However, it is widely accepted today that we need to specify the discourse type since it has proved to be a major factor in the linguistic configuration of texts (cf. Biber & Finnegan, 1991).

Third, some studies tend to consider this phenomenon globally, without distinguishing between intra and intersentential relations (cf. Martin, 1983, 1992; Crombie, 1985). But it is vitally important to realise that they are not interchangeable in discourse, as van Dijk (1977) explains. The realizations at the two levels do not coincide, nor are the relations themselves exactly the same. There are also semantic constraints on what can be conjoined interclausally. Above all, the pragmatic factors vary considerably, especially as concerns questions of emphasis and the distribution of given and new information. In addition, the signals that express intersentential relations play a more important role in the macrostructuring of text and a study of those is likely to prove most fruitful for a better understanding of texts and discourse.
Lastly, most studies of ISR's focus their attention exclusively on one particular means of signalling these relations, on the kind of elements which are often collectively called *conjuncts*, including expressions such as *thus, then* and *therefore*. This is clearly due to the continuing isolated sentence orientation of grammars today (Quirk et al., 1985). However, as will be proved, there are alternative means of signalling such relations besides conjuncts (see also: Crombie, 1985; Hyde, 1990; Moreno, 1992, 1994; Winter, 1977).

Having outlined the main characteristics and limitations of previous accounts of ISR's, it now remains to explain the particular approach that has been adopted in the present analysis, which has drawn upon Hyde's (1990) to a great extent.

3. SCOPE

The scope of the study has been limited to only one type of ISR: causal relations. Thus it leaves out the other three important types, i.e. adversative, additive and temporal relations, which are included in Halliday & Has-an’s classification (Halliday & Hasan, 1976), on which the study is based, and are considered thoroughly in Hyde (1990).

4. OBJECT OF STUDY

Let us begin by defining causal ISR’s in order to be able to define causal ISR signals subsequently.

Broadly speaking, a causal intersentential relation can be seen essentially in terms of the following simple schema:

\[ C \rightarrow E; C = \text{cause}, E = \text{effect} \]

where a unit or block of one or more sentences, \( C \), stands in a specific causal logico-semantic relation \( \rightarrow \) to a contiguous unit or block of one or more sentences, \( E \), \( C \) and \( E \) being two semantic units which express, broadly speaking, a cause and an effect respectively.

Let us take the following example:

\[ \text{[1]} \]

\[ C \text{ [Interpretation must always be a matter of matching up what is new to what is familiar: ideas can only be understood in reference to established categories of thought].} \]

\[ E \text{ [There is always the tendency, therefore, to adjust ideas so that they conform to what is conventional and customary.]} \]

(Widdowson, 1990: 38/30)
In [1], an ISR of inferred consequence is established between the first semantic unit, C, which expresses a cause and the second unit, E, which expresses an effect, or a consequence.

The terms cause and effect are used in a broad sense to accommodate both a semantic and a pragmatic interpretation (Halliday & Hasan, 1976).

Let us now consider a further example:

[2] E [Total rejection of behaviourist theory is no more reasonable than total acceptance]. r C [For when one considers the matter, it is clear that there must be some aspects of language learning which have to do with habit formation.]

(Widdowson, 1990: 11/24)

In [2], by contrast, it is the first semantic unit which expresses the effect, or inferred consequence, and it is the second semantic unit which expresses the cause. In this latter case, we say that the causal ISR is reversed.

The relation itself can be explicitly signalled or not. In the examples above: therefore and for are the causal ISR signals that express the relation. The present study has only focused on those which are explicitly signalled by means of any kind of lexico-grammatical configuration, which, following Hyde (1990), have been termed causal ISR signals. This is only due to the fact that the real object of the study is the expression of causal ISR's and they must, therefore, be explicitly signalled. However we must not lose sight of the fact that a great proportion of causal ISR's hold in texts implicitly.

Thus, causal ISR signals can be broadly defined as elements which express causal logico-semantic meaning of a presupposing, connective nature and which range over the total semantic content of contiguous stretches of text.

Let us consider the following two elements of the definition: presupposing, connective nature. This means that the causal logico-semantic meaning expressed by the signal is connective or relational, since it relates two semantic units, and the interpretation of one of the semantic units related as an effect presupposes or depends upon the interpretation of the other as a cause, or vice versa.

5. THEORETICAL FRAMEWORK, METHOD, AND CORPUS

Text interpretation is considered as a general cognitive capacity which incorporates all kinds of extralinguistic knowledge along with linguistic knowledge itself in a tremendously complex inferential process. And this has important implications and consequences for the present analysis. Thus, in
this discourse analysis view of causal ISR’s, there has been an attempt to examine all the facets of the process of interpretation.

All the possible variations in the signalling of causal ISR’s have been considered, bringing together in a global presentation all the different means involved. This has been possible by giving precedence to the semantic and pragmatic meanings of causal ISR’s over any particular grammatical category of the signals which express them.

There has also been an attempt to distinguish between these variants and find possible discourse-motivated explanations for such variation. Likewise, possible ambiguous forms and other problems, as well as facilitating systems, in the identification of causal ISR’s have been taken into account.

In short, this study considers ISR’s from a broad discourse analysis point of view, without losing sight of the extralinguistic factors which may have entered into the configuration of the text.

In order to carry out the study systematically, a corpus consisting of a predominantly argumentative text was elaborated. The argumentative text chosen was Widdowson’s academic book: Aspects of Language Teaching. The word corpus is used to refer to a collection of textual material, of the written or spoken mode, which is stored on computer for the purposes of linguistic research (cf. Renouf, 1987: 2). In this particular case, the corpus is based on written material, and it consists of the main body of the above-mentioned book, which means approximately 66,543 words.

According to Werlich (1983), «if grouped together on the basis of their dominant contextual foci, texts may be classified into five text types: description, narration, exposition, argumentation, and instruction... Argumentation is the type of textual communication in which the encoder proposes relations between concepts of phenomena and makes his propositions in explicit or implicit opposition to deviant or alternative propositions» (Werlich, 1983: 39-40). It was assumed that choosing an argumentative text as the primary source of data for the study would guarantee the occurrence of a great number of causal relations and that some of these would be explicitly signalled. In this particular corpus 447 instances of causal ISR signals were identified.

An obvious limitation of this study is that the corpus is not truly representative of the whole population of argumentative texts. Besides, since the corpus is formed by a text written by one author only, the results might also be affected by the writer’s idiosyncratic use of ISR signals. This study should then be considered as exploratory. Hence, the statements made about the use of causal ISR signals should not be extrapolated to other types of text, not even the argumentative type until further research is carried out to confirm the present results.

Having provided the general outline of the study, it is now time to move on to the results.
6. RESULTS

Let us consider figure 1, where the various causal intersentential semantico-pragmatic categories identified in the text are shown: General Causal (GCA), Reversed General Causal (RGC), Result (RES), Purpose (PUR), Reason (REA), Reversed Reason (RRE), Conditional (CON), Reversed Conditional (RCO), Reversed Polarity Conditional (RPC) and Respective (RSP). (Figure 1 about here.)

As can be seen, most of these categories are those found in Halliday & Hasan's classification (1976), and they are broad enough to accommodate both a semantic and a pragmatic interpretation, or a mixture of both.

Each of these categories was analysed in terms of various criteria, some of which lead to the following main types of variants, represented schematically as follows:

[4] C. In consequence, E.
In these examples, there is a causal ISR between the two causal semantic units C and E. Another shared feature between them is concerned with *aphoric direction*, disagreeing on this point with Hyde (1990) and with my previous standpoint (Moreno, 1992, 1994). In my view, all these signals are anaphoric-cum-cataphoric, that is, they establish the causal ISR both by looking backward, encapsulating the first conjoin, and by looking forward, prospecting the second conjoin. In other words, when the reader’s eyes reach them, (s)he is automatically bound to interpret the first conjoin as a cause (or an effect) of what (s)he is now expecting to come: an effect (or a cause, depending on the type of causal ISR involved).

The only real justification for distinguishing between anaphoric and cataphoric signals is the following. In anaphoric signals such as [3-7], the fulfillment of the prospection created takes place in the sentence where the signal appears. In cataphoric signals such as [8-9], the prospection is only satisfied by reading the following sentence or stretch of text.

Let us now look at distinctive features. In [3], *So* is an adverb particle which signals a General Causal Relation. In [4], *In consequence* is a sentence adverbial which signals the causal relation of Result, or Consequence. But what is important here, is to observe the fact that both expressions, and also [5], usually called conjuncts, play a peripheral role in the sentence. In fact, many such signals are normally separated off by commas from the rest of the sentence, and either appear in sentence-initial position or are contained within the thematic portion of the sentence. These are the kind of expressions which, following Hyde (1990), have been termed *peripheral ISR signals* in this study.

In [6], [7] and [8], *means, reason and reasons* are *integrated ISR signals*. Integrated signals are not peripheral. They are expressed by elements which constitute the central categories of sentence structure -mainly nominal or verbal elements. For instance, in [6], the ISR signal is the verbal element *means* and expresses a causal ISR of deduced or inferred consequence. In [7], the signal is the nominal element *reason* and expresses a causal ISR of reason. And, in [8], the nominal element *reasons* expresses a causal ISR of reversed reason.

A *further distinction* which can be seen in these schematic examples is concerned with the placement of the signal. All the peripheral ISR signals in [3], [4], and [5] are within the domain of the semantic content of the second unit, or conjoin, no matter whether it is the cause or the effect. By contrast,
integrated signals are always within the domain of the semantic content of the conjoin which is functioning as the effect, no matter whether it is the first or the second conjoin.

Lastly, the signal *why*, contained in [9] occupies a whole sentence to itself. This leads to a further concomitant distinction within ISR signals, that is, all the signals contained in both [3], [4], [5], [6], [7] and [8] are intrinsic signals. In them, the ISR signal itself is contained within the domain either of the first conjoin or of the second conjoin, forming part of the same sentence (or block of sentences) which expresses the semantic content of that conjoin. The signal contained in [9], on the other hand, is an *extrinsic* ISR signal. It occupies a sentence to itself, which expresses no part of the semantic content of either the first conjoin or of the second conjoin.

We have then, two basic variants, as can be seen in figure 2: extrinsic (3.8%) and intrinsic ISR signals (96.2%). Intrinsic signals may be divided in turn into two subtypes: peripheral signals (including conjuncts) (70.46%) and integrated signals (29.54%). (Figure 2 about here.)

This demonstrates that there are alternative means of signalling causal ISR's besides conjuncts, although it is true that, in the text analysed, integrated and extrinsic signals are less frequent than conjuncts, as we can see in figure 2. There is a relatively high proportion of integrated signals, nearly a third, compared to peripheral signals. However, out of all the causal ISR signals registered in the book (447), only 3.8% were extrinsic. Nevertheless, different proportions might be found in other genres and text types.
My main point is that these alternative means, integrated intrinsic and extrinsic causal ISR signals, play a very important role in the interpretation of the relation they signal and also in the organization of discourse, as we shall see. Let us consider a few more examples, presented schematically as follows in order to appreciate their discourse structure more clearly:

[10] C. This suggests that E. (26/16)
[12] C. The paradoxical effect of this has been E. (55/12).
[13] E. There are a number of reasons for this. C. (122/21)

All these examples show a causal ISR between the two semantic units related; and the causal nature of the relationships can be demonstrated, for instance, by the fact that the connections in each case could equally well be expressed (in broad terms, of course) by the use of a causal conjunct such as consequently, as a result or for (with the necessary grammatical modifications).

However, the writer has chosen not to use conjuncts but to use these alternative means instead. So what is there in these signals that is not found in a conjunct? And what might be the possible discourse-motivated reasons for using them? Let us take examples [10-14] in a wider context one at a time:

[10] C. [We cannot exercise caution unless we know how to interpret such findings in terms of actual conditions, other than those which define the relative validity of these findings.] r E [This suggests that it is not the findings, the products of enquiry, that we should apply but the process of enquiry, the conceptual analysis, observation and experimentation which research exemplifies.] (26/16)

In [10], the causal ISR being signalled is one of inferred or deduced consequence, and it is being expressed by a verbal element: suggests. This is preceded, as is usually the case, by a demonstrative pronoun, this, which acts as the subject of the verb and scopes over the whole of the first conjoin, encapsulating it (cf. Sinclair, 1992).

Perhaps the most important characteristic of verbal causal ISR signals is the fact that they allow the ISR meaning to be qualified in various ways and to various degrees, whereas conjuncts are in some sense, so to put it, monolithic in their expression of ISR meaning. Evidence in this regard is provided by [11]:

[11] So Lado quite clearly recognizes the ability to communicate as the primary objective of language learning and conceives of structural practice
only as a means to that end. C [The essential difference between his position and that of those who advocate communicative language teaching would seem to lie not in any disagreement about the centrality of communicative purpose but in the concept of communication itself]. r E [And this difference necessarily leads to different proposals as to how the ability to communicate should be taught.] (118/25)

In this instance, the anaphoric verbal signal leads allows the presence of modality, expressed by the modal adverb necessarily, which modalises the ISR causal meaning itself. On the other hand, the deictic element which acts as subject of the verbal signal is realized by a nominal expression, this difference, which encapsulates and refocuses (cf. Sinclair, 1992) the semantic content of the first conjoin, and it is used to characterise and comment on it.

[12] C [This view of research in respect of language teaching has, as I showed in Chapter 2, led to an unfortunate separation of roles which has proved damaging to the pedagogic cause: the researcher as the producer of truth on the one hand, and the language teacher as a consumer of it on the other.] r E [The paradoxical effect of this has been to put the researcher, including the one who claims to be working within applied linguistics, at a remove from the only contexts of application which can provide substantiating evidence for the relevance of the research.] (55/12)

In [12], the result ISR meaning is conveyed by a nominal signal acting as head of a noun phrase, which is the subject of the copula be. As can be seen, a nominal ISR signal may also be modified and expanded in various ways. In this case, it is modified by an attributive adjective, paradoxical, which is evaluating the nature of the effect.

Let us consider example [13] in full form now:

[13] E [It is, of course, the mediation view which has become prominent over the past fifteen years.] There are a number of reasons for this. r

C [For one thing, language teaching has been sensitive to developments in the study of language: the extension of the scope of linguistic description beyond the sentence, the study of actually occurring language in context, the interest in speech acts and pragmatics. At the same time, work in second language acquisition has suggested that it is the creative exploitation of language to achieve purposeful outcomes which generates the learning process itself. Both language use and language learning, it would appear, are to be characterized in terms of mediation.

There is another influence at work as well. The medium view is associated with authority. With its emphasis on transmission and conformity, it promotes the conservation of established social values and is consistent with a concept of education as the means of maintaining
conventions and persuading people into their acceptance. Such an ideology is not well suited to the spirit of the age, at least as this is perceived in some parts of the world. It has been called into question on the grounds that it perpetuates the rule of privilege and denies the rights of self-determination and dissent. The mediation view is obviously more attuned to more liberal ideas, allowing as it does for discovery and self-expression. It emphasizes initiative rather than initiation, the autonomy of learning rather than the authority of teaching. Its consistency with what would seem to be a more enlightened social and educational ideology might seem reason enough to accept it as self-evidently preferable without further question. And some people, it would appear, have accepted it on these grounds, inspired by the humanistic fervour of the times.\textendash{} (122/21)

In [13], the nominal ISR signal, \textit{reasons}, is modified by a quantifier, \textit{a number of}, which anticipates that various reasons will be given in the following discourse. Thus this nominal signal alerts the reader as to the imminent up-coming ISR and as to how the discourse will be organised. Furthermore, since the stretch of discourse expressing those reasons is very large, before these are expressed they are signalled explicitly by various means: \textit{for one thing, at the same time and there is another influence at work as well.}

Extrinsic signals, such as the previous one, play perhaps one of the most important roles in the macrostructuring of discourse for two reasons. On the one hand, extrinsic signalling confers special emphasis and prominence on the conveying of ISR meaning, through the information and intonational features associated with full sentence status (Hyde, 1990). On the other hand, these signals show a marked tendency to scope, both anaphorically and cataphorically, over extensive chunks of text. Consider now example [14]:

\[14\]
\begin{quote}
E \text{\textemdash{}Now one may think that this kind of interactional engagement is just a quaint and rather Dickensian remnant of the past, to be dismissed out of hand and clearly to be condemned as bad practice.\textemdash{} But on what grounds?}\r

C \text{\textemdash{}Well, we might invoke a more enlightened ideology and say that the kind of education promoted by this type of interaction is one which forces the individual into conformity with existing patterns of power, schools the pupils into maintaining an iniquitous social structure which favours a self-appointed elite and effectively acts as an instrument of disenfranchisement. The pupils are put in this position in the classroom so that they can be more effectively kept in their place in social life. We may indeed, as many others have done, challenge the idea that there needs to be any clear definition of role at all. We may wish to think of the classroom engagement as being not a position-oriented but a person-oriented interaction (to use Bernstein's distinction, see Chapter 9) and so get rid of all this cumbersome ritual. No sartorial signs of office,}
\end{quote}
no gown, no suit or tie—just a sweatshirt and sneakers. No position and no imposition. «Don't call me Sir. Don't call me Mr Brown. Call me Dave.» Don't call me Miss. Don't call me Miss Brown. Call me Liz.» Equal opportunities and human rights...

So we might object to the traditional interaction I have presented on the ideological grounds that it runs counter to enlightened educational thinking. It is fundamentally undemocratic. But we could also object to it on more expedient and practical grounds by saying that, whatever the moral or political or social objections might be, such an interaction is to be proscribed because it is inconsistent with the kind of pedagogic transaction needed to facilitate language learning. It just does not create the right sort of enabling conditions. Now this is a very different sort of objection and needs different arguments to sustain it. It might be pointed out, for example, that such a rigid definition of role impedes the natural learning process since it does not allow for learner initiatives: it does not give the learner scope to draw on the available resources of intuition and inventiveness, or to engage freely the procedures for learning which he or she has acquired through a previous experience of language. Nor does such a role definition allow for the provision of group work (see Brumfit 1984a: Chapter 5; Wright 1987: Section 2.3). We might adduce evidence from research on the «Good Language Learner» (see, for example, Naiman et al. 1978) and on natural second language acquisition (see Ellis, 1985) in support of the contention that such a close adherence to fixed prescribed roles in the classroom is detrimental to effective (and affective) learning...

In this example, on what grounds is organising several paragraphs of the text. Again, the different arguments adduced to support the claim made in conjoin E are signalled explicitly through some kind of device to remind the reader that there is still a prospection to be fulfilled. In this case, such a device consists in repeating the same thematic pattern to introduce each of the arguments given, in which a modal auxiliary is recurrent: might, may and could.

Some extrinsic signals found in the corpus were organising even larger stretches of text. For instance, in [15] above, the nominal signal conclusion scoped anaphorically over the whole previous text and cataphorically over the rest of the book.

7. CONCLUSION

Thus, the study presented in this paper has revealed the existence of alternative means of signalling causal ISR's, besides conjuncts, such as: a great proportion of integrated signals and a minor but important group of extrinsic signals,
It has also helped to show a wide variety of factors which are vital for an adequate understanding of this aspect of discourse, but which have hardly been considered in previous accounts. Some of these factors refer to:

1) pragmatic aspects of the signalling of ISR's, such as emphasis;
2) the modifications to basic causal ISR meaning which are made possible through the use of integrated intrinsic signals and extrinsic signals (modalisation, quantification and descriptive attribution);
3) how the explicit signalling of causal ISR's is intimately intermingled with questions of the macrostructuring of discourse; and
4) the ways in which texts alert the reader as to what upcoming ISR is imminent through the use of cataphoric signals.

In conclusion, these results are important as additional evidence that corroborates Hyde's (1990) main point: that only by taking this global discourse view of causal ISR's, is it possible to appreciate a wide variety of aspects of the signalling and interpretation of causal ISR's which are vital for an adequate understanding of this aspect of discourse.

A possible topic for further research might be to contrast the different types of modification to these signals between various discourse types and genres, and try to find out in what ways they vary (e.g. in terms of frequency, degree of modality, semantic fields of attribution, and so on) and why they might vary in such ways. This kind of investigation would probably yield very interesting results in the field of variation studies (Biber & Finnegan, 1991).

NOTES

1 This paper is edited from the transcript of a talk I gave to the Madrid 5th International Systemic Workshop in July 1993. This version has greatly benefited both from the interesting suggestions of John Hyde and Angela Downing and from the plenary and informal discussions at Madrid, particularly from the comments of John Sinclair, Gordon Tucker and Michael Jordan.

2 This text is Widdowson, H.G. (1990). Aspects of Language Teaching. Oxford: Oxford University Press. I wish to thank both the author of the book, H. G. Widdowson, and the editorial, Oxford University Press, for their permission to convert the text into electronic form and to use some fragments of it as evidence for my claims.

3 The notion of sentence is understood as the fragment of text contained between two stops, or between a stop and a colon if the following fragment is a clearly independent unit.

4 For any reader wishing to refer to a wider context, these two figures stand for the page and the line in which the causal ISR signal occurs in the text analysed.

REFERENCES


