WHEN CONSEQUENCES ARE CAUSES.
TEXTS AS GUIDED PATHS[1]

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ABSTRACT. *Causation is a very important structuring principle of our perception of reality, but causation is, very often, imposed, and it basically depends on the observer and his or her perspective. It will be illustrated here how causation can be manipulated, as well as the relevance of this fact for language and communication. In scientific texts, the reader is guided through an evaluative process whose main goal is persuasion, but in this kind of message there is little room for manipulation concerning the ordering of causes and consequences. Logical fallacies, which may appear in ordinary conversation but also in more specialized varieties of linguistic usage (e.g. political language) illustrate it better. However, where this manipulative resource excels is in messages constructed around big metaphorical mappings. This is exemplified with the case of the treatment of the Gulf War in the mass media, as Lakoff (1992) very clearly explains.*

Moreover, we have that mass media exchanges between two different sides normally try to assign causes and consequences in a manipulative manner too, and there is a last example presenting this fact. Finally, our conclusion shows how all these possibilities share some configurational properties.

1. INTRODUCTION

The topic of this paper is discourse and apparent causation. Causation may be defined as the act of agency by which an effect is produced; also, the necessary connection of events through cause and effect. Thus, causation is normally seen as a cause-effect relationship, wherein events can be objectively identified; but, in fact, this

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relation may be imposed on reality, its adequate perception depending on the observer and his/her perspective. This does not mean that real causation does not exist, since apparently there are some events that precede others and the former are necessary for the latter to become true, that is, there are causes and consequences. However, it can be shown here how causation can be manipulated, and this is very relevant indeed for language and communication. The purpose of this paper will be to illustrate this notion of "manipulated causation" by means of examples like evaluative manipulation in scientific texts, argumentative fallacies, and guided interaction.

That reality can be constructed and modified through communication is a fact, and the interested reader is referred to look at available works on this topic, for instance, Watzlawick (1977).

2. What causes what? Playing with causes and effects

Causes and effects can be moved around, which allows for manipulation of "what causes what" and thus creates an illusion. Since this instance is done in magic tricks all the time, let us illustrate this by looking at a simple card trick here ("The Hourglass Card Trick", Fulves 1992: 1):

> "1. The Hourglass Card Trick
>
> This trick is a swindle from start to finish. A simple placement is combined with an audacious location of the chosen card. At no time does the magician touch the deck. The effect contains the odd constraint that it can be performed only at certain times of the day.
>
> A spectator shuffles his own pack and removes any six cards. From these he selects one for himself. He takes the balance of the deck and deals it into two face-down heaps, dealing a card alternately on each heap until he has dealt all the cards. The spectator places the chosen card on either heap. Then he places the remaining five cards on either heap. Finally, he places the heap that does not contain the chosen card on top of the other heap. The chosen card has thus been buried in the middle of the pack. lt appears to be hopelessly lost but, in fact, it lies twenty-ninth from the top of the deck.
>
> Glance at your watch and announce the time as, for example, 3:26. The spectator adds the number of the hour to the number of minutes (in this example 3 + 26) to get 29. Then he counts down to the twenty-ninth card and finds that it is his card.
>
> The trick must be performed at these times:
> 1:28 7:22 2:27 8:21 3:26 9:20 4:25 10:19 11:18 6:23 12:17
>
> Rather than take a chance that the spectator might miscall the time, glance at the watch, letting him see the time, then call out whichever of the appropriate times given above it happens to be. When the spectator adds the numbers and counts down to that number, he finds his card."

In this trick there is a short preparation, whose aim is to show that a chosen card is lost in the middle of the pack, buried under a number of cards. However, this is not true. Since the whole pack has 52 cards, and we have taken out 6 (leaving 46), the two heaps have 23 (46/2) each. Now, the rest is clear. The chosen card is the 29th from above, but the spectator does not know anything. The trick is already done. It is just a question of making the spectator say 29, by announcing a time that gives as a result this figure. Of course, to get this result, the trick must be performed at certain times of the day, and it must be the magician himself who calls out the exact figure.

In this situation, not only does it seem not to exist any logical cause for the outcome, but also a connection is established between the time that is announced and the number of cards to be counted. The spectator finds it so impossible that he/she credits it as an act of magic.

The result could have been presented in a less subtle way. If the magician had said "count 29" instead of resorting to time figures, the spectator would have suspected that the position of the card in the deck has been manipulated. Nevertheless, with this presentation, it is impossible to guess where the trick is.

This outcome is similar from both the magician and the spectator's perspectives. However, the causes are very different. The logical, rational, real cause of the discovery of the spectator's card is the special arrangement of the heaps. This is the magician's perspective. From the spectator's point of view, there is a magical force that has put the card there, and there is even a causal link between the time of the day and the card moving, pushed by that magic force, to its place.

The guide to this perception of an imaginary cause has been the magician himself, through special presentation techniques.

I want to show here how there may be a similar kind of manipulation also in texts. With that aim in mind we can approach two different "genres": scientific research articles vs. political, opinion, or "mass media" texts, which have different ways of presenting evidence. Scientific texts do not show this kind of manipulation very explicitly, whereas opinion texts have other resources to alter the normal chain of causes and consequences.

3. SCIENTIFIC TEXTS AS EVALUATION

Hunston (1993, 1994) proposes a model that shows how certain scientific texts can be interpreted as an evaluation process[2]. More precisely, scientific research articles are

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2. Some of the examples and many of the ideas presented here were already put forward in the excellent research carried out by M. J. Luzón (1996), who explored the way in which procedural vocabulary was used to convey the author's presence by means of opinions and evaluation of what was being said. As suggested in the text, this can also be a useful persuasive device.

based on a value system to which they adhere. Positive value is associated with certainty and generality, and the scientist tries to make general those claims that are "certain". The further away from experimental results the more general the claim, but also the less certain, which makes us look for a way to meet a balance. In order to give 'certainty' to the claim, there are certain techniques of which the scientific writer needs to be aware. We know, for instance, the importance of the recognition or the citation of a researcher's work by other members of the scientific community. Accordingly, the writer tries to convince everybody that his/her work is good. He/she has to demonstrate that what was uncertain or unknown is now probable or highly probable and tries to prove that the results have been obtained using an appropriate method in a manner consistent and congruent with the results of well-founded theories. Persuasion is, therefore, part of scientific discourse, since all the argumentation is built with the purpose of proving the final assertion. The information is presented in such a way that it leads unavoidably to a conclusion.

Hunston distinguishes three elements which are important for this evaluative process. They are *status, value* and *relevance*. The *status* of a sentence is "the writer's degree of certainty and commitment towards the proposition" (Hunston 1993: 60-61). According to this, any sentence is placed on a scale from most certain to least certain. Different points on the certainty scale are the following: *known, certain, probable, possible, unlikely, untrue, unknown* (Hunston 1993: 61). *Known* statements are normally statements about background knowledge, which provide context. Statements that are *certain* are normally part of the enclosed discourse of the research article, reporting the experiments or factual information. When the author comments on this research, we have propositions that go from a *highly probable* to a *possible* status. The author's statement itself can also be considered to have different degrees of possibility. Here it is important to bear in mind that modals and other devices that are normally used to express status can be determined not only by facticity but also by politeness principles.

Value is a judgement in terms of quality, according to which something can be either good or bad or some value in between. The assessment is normally made on "the fit between aspects of theory and practice" and on "the usefulness of a piece of information". This information can be previous knowledge (either good or bad) or the author's own research (normally considered good).

The third element, *relevance*, assesses how significant or relevant is the surrounding text to the argument of the discourse. Relevance markers evaluate the discourse itself.

These elements work in the text developing evaluation in time, creating a pattern that appears in research papers. As Hunston (1994: 200) says: "Results are given further and further degrees of interpretation, thereby representing a gradual movement away from what is certain towards what is significant". We have a structure in which the paper

starts with a proposition, the research question. Then, there is a commentary and interpretation of the facts (the findings), which involves the accumulation of supporting data and positive evaluation. The conclusion is, in fact, an interpretation of the findings. However, in the reader's mind it becomes and assertion. According to this, the status of the final claim is highly dependent on the value of the different sentences which lead to this claim.

Two ways in which this evaluation is carried out is through the use of full verbs or by using modals.

Let us see how this evaluative progression takes place in scientific texts through the use of full verbs, commenting on several examples:

(1) *In this study we try to apply Schmidt's model...*

(2) *This study attempted to demonstrate...*

(3) *According to the results we had from previous studies, we hypothesized that...*

(4) *The hypothesis is that the main source of distortion comes from...*

(5) *Here we show that the main factor in determining...*

(6) *We report here that the remaining trace of liquid in some...*

(7) *We found that the low-level radiation showed...*

(8) *In our experiment, we discovered new facts that...*

(9) *We considered that there was only a small quantity of...*

(10) *It was estimated that only a very minute amount of radiation was needed*

(11) *We think that our results have some significance...*

(12) *We believe that further research needs still to be carried out*

(13) *The results of our experiment support the main hypothesis*

(14) *These results make us conclude that...*

(15) *This study indicates, in a very clear way, that...*

In (1) and (2) we have sentences used for a statement of purpose or introduction to a hypothesis, which is normally the starting point when reporting about an experiment. Normally, the clause that complements the verbs signalling a statement of purpose is an indirect question, giving it the status *unknown*.

In (3) and (4) the hypothesis is already introduced, which introduces a status higher in the probability scale (now it is *quite possible*). The introduction may also present the main claim, with the status *probable* or *highly probable*. This is normally done with verbs such as "propose" or "suggest".

There are also factive verbs which imply that the proposition is based on a great deal of evidence or that the author is objective. This is the case in (5) and (6). The status now is again *highly probable*.

Whenever a statement of observations or a statement of findings is made, as it is the case in (7) or (8), the proposition is given the status *certain*.

From that, the research report goes to the interpretation of results, which also has different possibilities for assignment of status. We many times find verbs that indicate mental research acts, as in (9) and (10), with the status *quite possible*. Even though all statements are based on evidence, the reference to mental acts lowers the degree of certainty to a certain extent. This is even lower with personal judgements, opinions or beliefs, as in (11) or (12), where the status is just *possible*.

However, the status is going up again with expressions in which we find verbs indicating correspondence between theories, hypothesis and data, as in (13). The status now is *quite probable*.

Research papers end with a statement of the main knowledge claim answering the research question that was put forward at the beginning (examples (14) and (15)). This kind of statement has a higher probability status *(highly probable* or *probable)*.

Finally, in (16) we have an example of "conclusion". The writer evaluates the information as highly probable, since it has been reached through a deductive process going through several premises. This is an interpretation of results which has a very high status on the certainty scale.

Thus, summarizing, we have two main phases in the argumentation put forward in a research article, namely, a first one in which empirical data are presented and contrasted with already established evidence, and a second one in which there is judgement, evaluation and interpretation of these data. In both sequences there is a movement from uncertainty to certainty which is transmitted to the reader, who is led to believe that there is complete certainty at the end. If we look at the examples presented here, we have the following steps, according to the status conveyed:

(16)

(A) UNKNOWN —-> PROBABLE —-> HIGHLY PROBABLE/CERTAIN ===>
(B) POSSIBLE —-> QUITE PROBABLE —-> HIGHLY PROBABLE —->
    NEARLY CERTAIN

The reader is guided through the whole evaluative process, in order to pursue a certain effect on him/her. However, in research articles this evaluative structure does not allow much manipulation with respect to the ordering of causes and consequences.

With other kinds of texts, of a more argumentative nature (e.g. opinion, political pamphlets, etc.) it is easier to play 'causation tricks' and the contents can be manipulated, so that the audience is led to believe that consequences are causes and vice versa. Normally, there is some 'hidden' consequence which the speaker may use as a powerful manipulative device. I will give a few examples of the kind of reasoning that is used for some of the arguments that can be found. We can start by looking at some common logical fallacies that can be exploited for manipulation purposes.

4. CAUSATION ON A STATIC LEVEL: LOGICAL FALLACIES

In the trick we saw in the first section, there were no temporal clues for the causal relation. In fact, the time of the day is only mentioned at the end. However, its precedence as a cause is inferred.

New causation links can be created even if there are no temporal sequencing clues. In language, this kind of manipulation is exemplified in logical fallacies, which are accepted as "legal" inferences by many people and can therefore be used either for attributing artificial causes to certain states (that become results) or for assigning results to still other states (that are then seen as causes).

If we look at a typical deductive argument, it may have the following form *(Modus ponens)*:

(17)

1. if A, then B
2. A takes place
Deduction: Then also B takes place

e.g. *If the bell rings, then somebody is at the door. The bell rings. Therefore, somebody is at the door.*

The typical fallacy here is the following:

(18)

1. if A, then B
2. B takes place
Wrong deduction: Then also A takes place

e.g. *If the bell rings, then somebody is at the door. Somebody is at the door. Therefore, the bell rings.*

We can also have fallacies in inductive arguments which use quantifiers. Take for instance this one:

(19)

1. Most A are B
2. A takes place
Induction: Then A should most probably be B

e.g. *Most plants are green. This is a plant. Therefore, it should be green.*

This sounds right. But the problem comes when *most* stands for *many* or *some*. Let us imagine somebody making the following deduction: *Many politicians are corrupt. My neighbour is a politician. Therefore, he is corrupt.*

In some fallacies, the premises that lead us to the conclusion have no logical import. This is done, for instance, when there is an appeal to the consequences of a belief, as happens in the following example:

(20)   *People have a great desire to have more money and pay less taxes. Therefore, it is necessary that we put a remedy to all this.*

Here, we have reversed the argument, for manipulative purposes: We want to lower taxes and make everybody believe that we do it not because we want to but rather because it is necessary according to the desires of the population.

Another case is the appeal to fear, of which we have the following example. Somebody says:

(21)   *This is the only possible course of action. If we don't do it, there will be chaos everywhere.*

Again, we want to do something, but at the same time we make people think it is they who decide. Since the alternative is frightening, we do it because everybody wants to.

In other cases, it may be the case that it is the interlocutor who changes the argument, making it less credible. This is what happens in arguments "ad hominem" (against the man). As an example, we have a politician saying the following:

(22) *The only solution is selling the company to private investors. The socialists say it is better to keep it in the hands of the state, but they say that because they are socialists. So, they have no solid basis for their argument.*

Here, we want to privatize a company. In order to do that, we create an illusion in which that is the best thing to do, because the opposite is false, since the supporters of the alternative idea cannot support their view with arguments.

These cases that I have just shown are not clear cases of creation of new cause-consequence links. Some argumentations that can be considered as such are genetic fallacies, as when somebody in the opposition says the following:

(23) *The Minister was in the Hitlerite Youth when he was three. With that sort of background, the new plan for improvement of the economy must be a fascist plan.*

Other resources are personal attacks (where some unfavourable information about a person is presented and any claims that same person presents are considered false because of that), false dilemmas (where either claim X or claim Y is true, claim X is presented as false, and then, because of that, claim Y is assumed to be true), etc. They may even appear in different combinations. We can see this in (21), where there is also a false dilemma on top of the appeal to fear.

In all these cases, we can see how logical causes are assigned in a misleadingly faulty way. This is done all the time in argumentations that take place in ordinary conversation.

5. CAUSATION AS A MANIPULATIVE DEVICE

Artificial causation in logical and pseudo-logical arguments is a very subtle way of manipulating the receiver's perception of causes and consequences, which operates at a very precise, concrete level. By contrast, the most comprehensive way of assigning causes to consequences takes place in big metaphorical mappings that are created in whole communication processes.

A very interesting study in this line was Lakoff (1992), where this author explains the different metaphor systems used in the media when talking about the Gulf War. Apart from the generally accepted metaphor for military and international relations, which Lakoff terms as Clausewitz's metaphor (WAR IS POLITICS PURSUED BY OTHER MEANS), there are also many other metaphors that are mentioned:

The State-as-Person system
   Strength for a State is Military Strength
   Rationality is the Maximization of Self-Interest
The Fairy Tale of the Just War
The Ruler-for-State metonymy

The Experts' Metaphors

The Rational Actor metaphor
The Causal Commerce System
Risks are Gambles
Rational Action (RATIONALITY IS PROFIT MAXIMIZATION)
International Politics is Business
War as Violent Crime
War as a Competitive Game
War as Medicine

        (Lakoff 1992)

Even though there is some consistency as far as the main points of the "official" argument are concerned, there are certain metaphors which at some points may yield different mappings and, therefore, create contradictory causation chains, which reveal the manipulation. Lakoff uncovers these contradictions: We have a war, and we need to assign some causes to this situation. The main question here is: Who and what caused the war? Sadam Hussein was assigned the villain role without dispute, according to the different possibilities we have in the metaphor of the Just War. However, there is no clear notion of whether Sadam behaved in a rational or in an irrational way (Lakoff 1992: 473). Another important issue in order to determine the causes of the war was whether Kuwait was a victim or not. Again, there is a clash, now between the imposed metaphor and the Iraqis' perception of reality (Lakoff 1992: 474). Lakoff also mentions many more reasons why the Iraqis should be resentful against Kuwait, which give a very peculiar picture of a country that had been pictured by Western media as a victim. Another convention is that of a necessary final result. An imposed result is victory. This is very well-defined "in a fairy tale or a game", as Lakoff says. However, it should be clear that the gulf crisis did not find an end after the Allies' recovering of Kuwait. "History continues" (Lakoff 1992: 474-5).

These metaphors are in some way biased, or at least don't tell the whole story. There is another perspective, which Lakoff calls "The Arab viewpoint". And, most importantly, the metaphors used serve the interests of certain people who are not exactly the soldiers that went to fight the war (Lakoff 1992: 477). Poor people, especially

blacks, who are highly represented in the lowest ranks of the military have reasons to believe that they were victims suffering the most from casualties, family separation, and other problems derived from this war. At the same time the highest ranks see with aquiescence how their budget is increased thanks to this war. The most hidden interests lie in fact in energy policy and world influence considerations by the White House (Lakoff 1992: 477-78).

In this account the distortion of causation chains has a clear motivation. And American media try to give a closed structure to the fairy tale by assigning America the role of "hero" that rescues the innocent victim (Kuwait) and punishes the villain (Sadam Hussein). However, Lakoff again shows how this is artificial, since it does not fit the hero profile, for several reasons. The role is artificial, the metaphor is imposed, and causes and consequences cannot be what the metaphor tells us.(Lakoff 1992: 479-480)

According to Lakoff's analysis, even if we agree with the official perspective, which assigns causation in a very straightforward way, we cannot deny that it can be considered as simplistic and, therefore, manipulative. It would be interesting to see how the media in the Arab world (especially in some countries) transmitted the Alliance's victory to the public. It should have been very different.

Let us bring here another media example. The examples with fallacies in the previous section showed how certain arguments could be used to create causes for attitudes and ideas which can be discredited later accordingly. A more sophisticated persuasive game can be played when messages from different sides on the communication line try to put the blame on each other. A good example of this is what happened on the tenth of July of 1997, when ETA offered a murderous bid to the Spanish government.

The terrorist organization had been keeping José Ortega Lara, a government official, in a damp and dingy cubbyhole several metres underground for one year and a half. The police finally found the place, very well disguised under a piece of machinery weighing several tons in a factory. As an answer to the police's action, ETA kidnapped Miguel Angel Blanco, a small Basque village –and very modest for that matter– town councillor who belonged to the governing party (the conservative PP), and sent an ultimatum: The government should group ETA prisoners in Basque prisons (a repeated claim from ETA's representatives for years, since ETA activists have been scattered in prisons all around Spain to avoid control from their organization), otherwise they would kill their hostage the following day. In fact, they knew this was a difficult demand to fulfil in only one day. The government's response was in the same line: They appealed to the people, asking them to demonstrate against ETA. Huge demonstrations took place all over Spain, with coverage by the public television network all day long. But not a word was said of ETA's claim. The new message was now: ETA should listen to the people and let the hostage go.

Unfortunately, ETA killed the man, which is perhaps what they wanted to do, but the government managed to get rid of any guilt, since there had only been a struggle between ETA and the Spanish/Basque people, not a struggle between ETA and the government.

Let us summarize the two "moves" in the following diagram:

(1) ETA:

MOTIVATION: "We want to punish the government"——->

ACTION: "We kidnap Miguel Angel Blanco."

A CONDITION is established: "If you don't group the ETA prisoners, then we will kill Miguel Angel Blanco" —————>

RESULT: "The killing will be caused by the lack of response from the government, so that they will be the ones to blame"

(2) GOVERNMENT:

MOTIVATION[1]: "We want ETA to let their hostage go..."

MOTIVATION[2] (MOTIVATION[1] is not possible): "...However, if that is not possible, we want to transfer the blame back to ETA"——>

CONDITION: "In order to do this, we have to change the situation. Now the people are looking at what we do; instead, they should be looking at what ETA does"

ACTION: Their message to the people is the following:"This is everybody's concern. If we all show that we are against ETA, maybe we will get their mercy".

RESULT: This proved to be wrong, but the blame had now moved back to ETA

In all these communicative situations, the "official" side makes use of resources which are frequently referred to by works on persuasion (cf. Perloff 1993, for instance): The use of evidence to support the message, vivid message appeals, fear, two-sided messages, implicit conclusions, source credibility, expertise and trustworthiness reflected by the originator of the message, etc. If we follow the elaboration likelihood model (Petty and Cacioppo 1986), a cognitive model of persuasion, the two examples in this section make use of the peripheral path of processing, since there may be low involvement on the part of the receiver of the message at the start. Due to this, the message does not need to be a very elaborated one, which requires central processing, but rather simpler and more direct. This is done very effectively by means of metaphorical mappings, like the ones reported in Lakoff's study on war propaganda, or the appeal to the feeling of the people in the last example about the ETA bid.

5. CONCLUSION

A general pattern can be inferred from these examples which can help us come to a unified view of what lies deep under manipulative arguments. In all of them we have a starting point with a certain departure situation and from there we follow a certain line either of action or of reasoning, which we could refer to as "explicit". Parallel to this situation, there is a "hidden" setup of things. From there we go to the desired effect which can come either as a surprising mismatch between what we expected and what we find (as in magic tricks) or as a subtly convincing conclusion of the argument. Let us look at Fulves' trick structure in order to put it in a diagram:
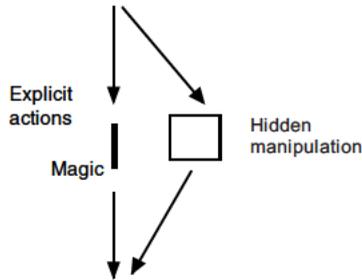

Figure 1. *The structure of a magic trick*

Here we can see that the new setup has been attained through a hidden manipulation.

In fallacies, the trick is now argumentative. By means of the appeal to beliefs, emotions, and faulty logical devices, we reach new mappings of values to arguments which play a role in the new conclusion:
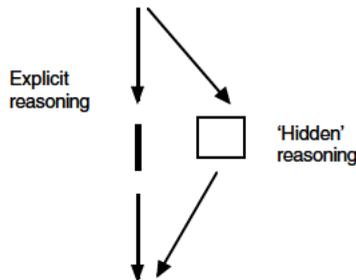

Figure 2. *Using fallacies*

In research articles, the author's use of modal devices and signalling verbs also assigns certainty values to facts and opinions in a natural progression which are then gathered at the end of the paper so that the reader is led to accept a high certainty value for the conclusion:
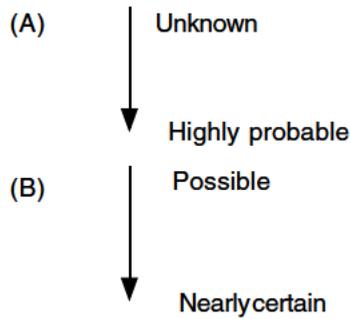
(A)   Unknown

Highly probable

(B)   Possible

Nearlycertain

Figure 3. *Increasing certainty in a research article*

In other big, complex mass media information transactions, large metaphorical structures give a very good hold for changing the match between facts and values. This is what happened in Lakoff's example about the Gulf War:

Explicit
reasoning   Mapping to
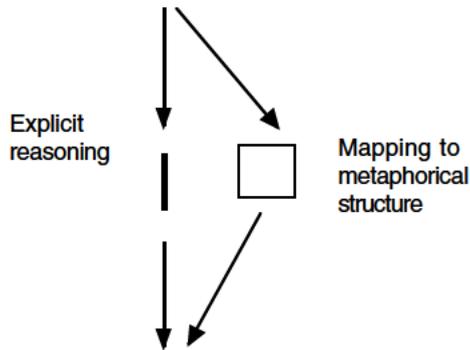metaphorical
structure

Figure 4. *The use of big metaphorical mappings*

As we can see, this kind of manipulation can be as simple or as complex structurally as we need. It is also important to point out that this resource may also be interactive, as my last example showed. A "dialogue", so to speak, may be held between two sides which use these techniques to produce different effects on those who follow the interaction from the outside. The last example had two moves, with this configuration:
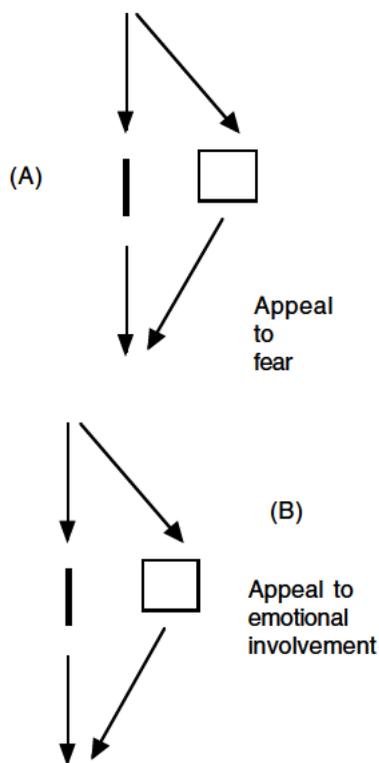
Figure 5. *ETA's bid and the government's response*

To close: It is striking to see how we as readers are so easily led by a writer to follow argumentations which in different hands may follow completely diverging lines. Once again, structure plays a role, but not as an abstract framework, but as a conceptual embodiment which adds meaning to facts and which can sometimes even create and change causes to the author's whim.

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