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# How to Classify Arguments

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## 1. THE DEDUCTIVE-INDUCTIVE DISTINCTION

A classical way to classify arguments is to divide them into deductive arguments and inductive ones. This famous distinction, however, causes many theoretical and practical problems, if it is applied to everyday argumentation (cf. Govier 1987; Nolt 1987; Weddle 1987). Even more important is the fact that the manifold varieties of everyday argument cannot be exhausted with the deductive/inductive-dichotomy (even if it is taken for granted that it could be successfully applied). This holds true also for classifications introducing one or two further types of inference, cf. e.g. Peirce's abduction or Govier's concept of conduction and (a priori) analogy or von Wright's practical syllogism (Peirce 1973; Govier 1987; von Wright 1974).

## 2. FIELD-DEPENDENT CLASSIFICATION

Another way of classifying arguments which tries to overcome the difficulties of the classical dichotomy is to classify them according to fields of argumentation, that is, institutional or situational contexts in which they occur. But this leads to unsatisfying consequences: first, there is the difficulty of the number of fields to be distinguished. If one would consider many, even very specific contexts of argumentation, the number of arguments would explode, or at least become very high. Second, there is the problem that many arguments occur in similar, if not identical form in various fields of argumentation. This way, many redundancies and repetitions would follow from this treatment. So I consider a classification according to fields of argumentation only as a interesting *further* way of categorizing arguments, but not as the first or principal one.

## 3. SEMANTIC CLASSIFICATION

I choose another way to classify arguments, following the tradition of ancient and medieval Topics (and Rhetoric). This way considers the semantic properties of premisses and conclusions, especially the semantic rules granting the transition from premisses to conclusion. Disregarding features of special contexts and situations, that is, at a high level of abstraction, one can

distinguish about 20 classes of such semantic rules, which were called 'topoi'/'loci' in the ancient and medieval topical tradition and can be equated with Toulmin's warrants (cf. Toulmin/Rieke/Janik 1984: 213f.).

I don't, of course, follow the topical tradition without criticism. In this tradition, many principles of classification, e.g. the distinction between descriptive and normative forms of argumentation, were not treated consistently. Moreover, the schemes of argumentation usually were not formulated explicitly (with the important exception of medieval topics). Questions of demarcation were only rarely dealt with. This criticism holds true also for the most influential modern approach to classifying arguments according to the topical tradition, namely, the typology of Perelman/Olbrechts-Tyteca (1971).

Later attempts to classify arguments semantically, that is, to establish semantically-motivated classes of argumentative schemes, reached higher degrees of explicitness and consistency, cf. e.g. Schellens (1985) and Van Eemeren/Kruijer (1987). While Van Eemeren/Kruijer only outline a typology of schemes of everyday argumentation, Schellens gives a detailed description with a high degree of explicitness and consistency covering a great variety of types of everyday argument. But still, I think, some further subdivisions and subtypes have to be introduced to cover at least the majority of examples found in representative samples of argumentative texts.

## 4. MY OWN TYPOLOGY

So in the following, I present my own typology, which is more detailed than the one of Schellens. I start with what I call the basic prototype of argumentative schemes. It consists of 3 parts: the warrant, the argument and the conclusion. (I use the term 'argument' rather restrictively in the sense of the part of the scheme giving the reason(s) for or against a controversial opinion). This scheme covers (apart from argumentation by examples) all more context-specific instances of simple (i.e. not compound) argumentation:

Warrant

Argument

Therefore: Conclusion

But of course, it has to be extended to deal with complex forms of argumentation (cf. Van Eemeren/Grootendorst (1984: 93).

Furthermore, I distinguish descriptive and normative schemes. Descriptive schemes contain only descriptive propositions in their premisses and conclusions; normative schemes contain descriptive *and* normative propositions in their premisses and normative propositions in their conclusions. Moreover, I distinguish 'real' and 'fictitious' schemes of argumentation. 'Real' schemes contain only propositions concerning the 'real' world and are formulated in the indicative mood; 'fictitious' schemes contain propositions

concerning some possible world and are formulated in the subjunctive mood; sometimes, however, there are fictitious schemes with both propositions in the indicative mood and propositions in the subjunctive mood. From a logical perspective, fictitious schemes have been treated by Lewis (1973) as counterfactual inferences. Finally, I distinguish pro- and contra-argumentation. Whereas in schemes of pro-argumentation a controversial claim is supported, contra-argumentation tries to refute a controversial claim. I consider all the dichotomies mentioned above as indispensable for the classification of every argumentation. However, often it is rather difficult to assess whether an argumentative utterance belongs to one or another class of the dichotomies. E.g. there are hardly any context-independent indicators which would enable us to differentiate clearly between descriptive propositions (being true or false/probable or improbable) and normative propositions (being right or wrong/acceptable or unacceptable) (cf. Zillig 1982).

Similarly, pro- and contra-argumentation can't be simply distinguished by the presence or absence of negation-marking morphemes (cf. Mieville et al. 1989), so both verbal and situational context and background knowledge have to be taken into account.

In the following, I give some examples of the distinctions mentioned above. I formulate each scheme in as abstract and general a form as possible. I start with an example of a descriptive scheme, taking a causal scheme of prediction:

If cause A is the case, effect B will be the case.

Cause A is the case.

Therefore: Effect B will be the case.

An example of a normative scheme is the following one, containing as warrant the so-called 'rule of justice' (cf. Perelman/Olbrechts-Tyteca 1971:218ff.):

If A and B are equal (similar), they have to be valued/treated equally (in a similar way).

A and B are equal (similar).

Therefore: A and B have to be valued/treated equally (in a similar way).

An example of a very abstract formulation of a fictitious scheme is the following one:

If p were the case, q would be the case.

Suppose p were the case.

Then: q would be the case.

Fictitious argumentation enlarges the argumentative possibilities of discussants considerably; however, it evokes a standard criticism, namely, the remark that fictitious argumentation always uses possible circumstances in possible worlds which are more or less different from the 'real' world: this way fictitious argumentation can always be criticized as untenable or irrelevant as far as real circumstances are concerned. Nevertheless, I consider fictitious argumentation as indispensable for everyday argumentation, especially as far as discussions about actions or events in the future are concerned. Moreover, some forms of fictitious argumentation are important also in scientific contexts (e.g. as 'reductio ad absurdum'; cf. Fisher 1988: 82ff. on 'suppositional arguments').

Apart from the general distinctions just mentioned, I classify argumentative schemes as to the types of warrants (cf. below) and the status of warrants as premisses or conclusions. Thus, I distinguish 'warrant-using' (warrant = premiss) from 'warrant-establishing' (warrant = conclusion) schemes. Instances of the latter are typically found to use examples: in everyday argumentation, usually one or two examples are used as a basis for a generalization and thus to establish a rule to be used as a warrant in further discussion. Besides warrant-using and warrant-establishing schemes I distinguish argumentation by analogy and authority, which can't be easily integrated into the first two classes: as Govier (1987: 59ff) has shown, argumentation using analogies is often case-by-case argumentation, where no general warrant is involved (neither used as premiss nor established as conclusion); and authorities can be used to establish a warrant, but this is not the only function of argumentation by authorities. Moreover, argumentation by authorities uses a warrant, but this warrant differs from all other warrants, which are much more specific as far as the semantic relationship (e.g. cause-effect, ends-means, genus-species, part-whole, etc.) is concerned. See the following version of a descriptive authority-scheme:

If authority A says that p is true (probable), p is true (probable).

Authority A says that p is true (probable).

Therefore: p is true (probable).

Therefore, in my typology, I distinguish four major classes and about 20 subtypes of schemes of everyday argumentation (See Figure 1). I can't discuss this classification in detail here, but I will add a few remarks. First of all, the distinction between warrant-using and warrant-establishing schemes can't be equated with the deductive-inductive distinction. That's due to the fact that everyday argumentation is almost never 'deductive' in the sense of being formally valid and/or starting from universal true premisses. In the case of normative schemes one even cannot speak of truth at all, if it is assumed that normative propositions are 'right' or 'wrong' rather than 'true' or 'false'. Similarly, warrant-establishing schemes are not 'inductive' in the sense of scientific inductive reasoning: often, in everyday argumentation, only a few

examples are given, which are typical and, therefore, qualitatively probable, but not quantitatively sufficient in the sense of being statistically significant samples (cf. Scriven 1987:29). Moreover, very often argumentation by examples illustrates or confirms an implicitly-used warrant rather than establishing it by generalization. Finally, it has to be stated that the plausibility of schemes of everyday argumentation always rests on the acceptable application of the general schemes to specific situations and contexts. Here always the possibility of exceptions - rebuttals in the sense of Toulmin - has to be considered. (For a detailed discussion of the typology cf. Kienpointner 1992: 250ff, where I explicitly formulate about 60 schemes).

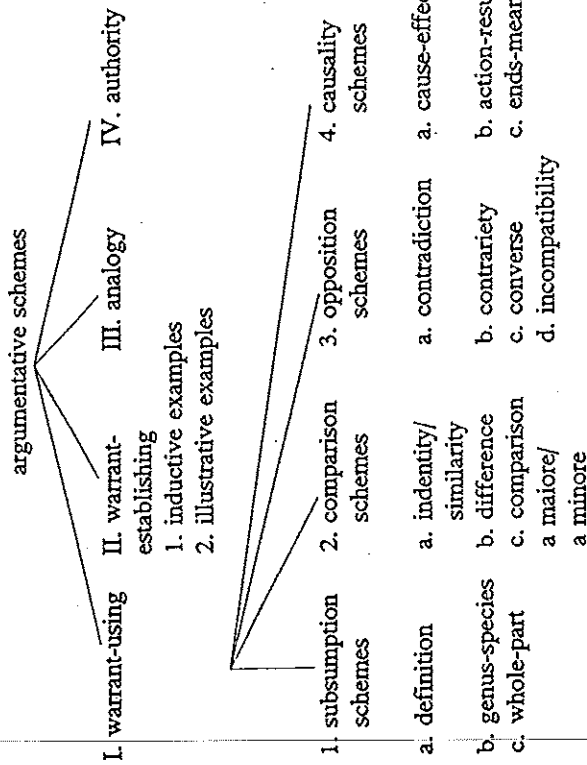


Figure 1. Typology of Argumentative Schemes

5. AN EXAMPLE

In the following, I will illustrate my typology with the presentation of one particular scheme, namely, the comparison scheme a *maioire/a minore*-schemes. I will treat mainly descriptive versions of a *maioire/a minore*-schemes. This type of argumentation was introduced by Aristotle (Top. 115a 6ff.; Rhet. 1397b 12ff.) and throughout the topical tradition it kept its place in the catalogues of *topoi/loci*. Perelman/Olbrechts-tyteca (1971: 343) cite it among their arguments of double hierarchy, calling it argumentation 'a fortiori'. The plausibility of a *maioire/a minore*-argumentation rests upon the following assumptions: if a descriptive proposition p is true, a proposition q

which has more *prima facie* probability than p, should also be true (a *minore*); if a descriptive proposition p which has more *prima facie* probability than a proposition q, is false, then q should also be false (a *maioire*). The same holds for normative propositions being more or less right or wrong on scales of positive or negative values. In everyday argumentation, only rarely the differing degrees of probability or normative appropriateness can be fixed with precise quantitative scales. A *maioire/a minore*-argumentation can be portrayed (as far as its descriptive versions are concerned) by Figure 2.

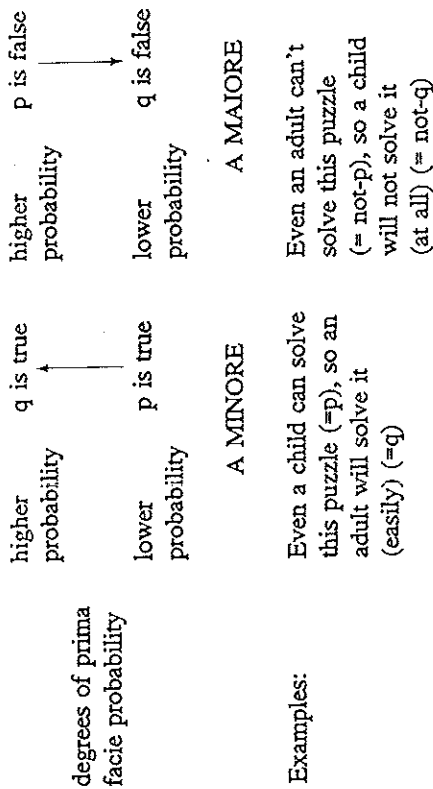


Figure 2. Descriptive a *maioire/a minore* argumentation

General versions of descriptive a *maioire/a minore* argumentations could be given as follows:

- (1) **A MINORE**  
 If even X has property P, and Y's having P is more probable than X's having P, then Y has P.  
 (Even) X has P.  
 Therefore Y has P.
- (2) **A MAIORE**  
 If even X does not have property P, and Y's having P is less probable than X's having P, then Y does not have P.  
 (Even) X does not have P.  
 Therefore: Y does not have P.

The plausibility of (1) and (2) can be questioned as follows:

- can X and Y really be compared according to their respective probability of having quality P?
- is it really more probable that X has P/is it really less probable that Y has P?
- is it really true that X has P?/does not have P?

This general criticism can be supplemented on a more context-specific level; e.g. in the examples mentioned above it has to be considered whether you are arguing about average adults and average children (and average puzzles, after all). I now start to present some examples of a *maioire/a minore*-schemes, mostly taken from a collection of newspaper editorials, comments, letters to the editor, advertisements and novels. As usual in everyday argumentation, almost never do all parts of schemes (1) en (2) or their normative counterparts appear explicitly. Sometimes only (part of) the warrant in (1) or (2) is given (cf. I.); often, the argument is given and the conclusion appears as a rhetorical question (cf. II.); often the argument alone is presented (cf. III.). An important indicator for a *maioire/a minore*-argumentation in English is the particle 'even', classified as a 'focusing subjunct' by Quirk et al. (1985: 604). More specifically, Quirk et al. state that particles like 'even' are 'additive subjuncts' that indicate 'that the utterance is additionally true in respect of the part focused' (ibid.). But, of course, 'even' is not always present in a *maioire/a minore*-argumentations.

In the following, I list some utterances according to the distinctions I.-III. mentioned above. Due to lack of space, I can only add a minimum of (critical) comments:

#### I. Warrant (partially) explicit:

If we don't respect the demands of equity between the two natural halves of the human race, I don't see how we can expect equity to be taken seriously where the interests of smaller groups are affected. (Toulmin/Rieke/Janik 1984: 411)

I assume that after the antecedent of this conditional construction, the implicit assumption 'and it's more probable that demands of equity between men and women are respected' has to be added; moreover, the argument 'Actually, we don't (even) respect the demands of equity between men and women' and the conclusion 'So I don't see how we can expect equity to be taken seriously where the interests of smaller groups are affected' (= the consequent of the explicit conditional construction) have to be supplemented.

#### II. Argument and conclusion explicit (the latter formulated as rhetorical question):

Our veterans cannot get housing loans, why should immigrants to Israel?

(Jerusalem Post, April 18 1990, p.4)

Since you seem unable to discern the difference between sports and editorial, how can you tell the difference between music and noise? (Jackson 1987: 223)

Sure there are idiots. And I have given them credits. There are bigger idiots in the Government. It is up to me to be more rigorous than the electorate? (Govier 1987: 113)

In the first example, a normative a *maioire* argumentation of U.S. senator Robert Dole is quoted. In the context, the commentator criticizes it as giving 'populist reasons' for the reduction of financial aid for Israel. Thus the commentator wants to show that Dole's argumentation is an instance of the ad *populum* fallacy. This is a criticism questioning the honesty of Dole's argumentation, rather than the relevance of the argumentation resting on the following implicit warrant:

If (even) U.S. veterans cannot get housing loans - which would be more appropriate -, immigrants to Israel should not get housing loans.

In the second example, a letter to the sports editor of a college newspaper the editor's criticism of the basketball band is attacked with a descriptive a *maioire* argumentation: the editor is accused to have misplaced his criticism in the sports column. The underlying warrant is:

If you (even) seem unable to discern the difference between sports and editorial (and this is relatively simple), you cannot tell the difference between music and noise.

This argumentation is questionable in two ways: the tenability of the argument can be doubted (that is, the argument could be classified as ad *hominem*; cf. Jackson 1987: 223), and its relevance is not beyond doubt, too: a person specialized in music could still know little or nothing about text-types in newspapers (of course, a sports editor *should* know much about them).

In the third example, a university teacher defends himself against the reproach of letting students pass exams without adequate competence. His argumentation, too, can be questioned as to the relevance of the argument (cf. the different reconstructions in Govier 1987: 113f., especially the criticism of making a right out of two wrongs). The implicit normative warrant of this a *maioire* argumentation could be reconstructed as follows:

If there are (even) bigger idiots in the government - which is less acceptable than the existence of idiots among students -, I need not be

more rigorous than the electorate (i.e., I can pass students lacking competence).

### III. Argument explicit:

Even Mikhail Gorbachev, who authorized creation of the cooperatives in the first place, complained about price-gouging and warned: "We have to take into account the mood of the people." (Newsweek, October 9, 1989, p. 8)

Even Yoichi Funabashi, chief economics reporter for the Asahi Shimbun, the respected Tokyo daily, acknowledges that the United States "couldn't very well allow a deal like that. Japan is America's top competitor in that field." (Newsweek, October 9, 1989, p. 25)

Even former Chancellor and Ostpolitik architect Willy Brandt conceded that "the time has gone when one can deal with (East Germany) in a step-by-step manner." (Time, October 9, 1989, p. 12)

The warrant underlying these three examples could be reconstructed on a more abstract level as follows (due to lack of space, I comment on only the first two examples):

If even person X upholds opinion Y - and it would be more probable that X holds the opposite opinion Z -, opinion Y must be highly plausible/right.

In the first example, the great difficulties of establishing private cooperatives in the U.S.S.R. are estimated to be indeed real problems; the plausibility of the claim is supported by a descriptive a minore argument: this argument quotes Gorbachev, who as the initiator of economic reforms is most unlikely to speak against them. Gorbachev, however, stresses the necessity of taking care of the mood of the people, who are suspicious about the negative consequences (e.g. 'price-gouging') of the establishment of private enterprise. Similarly, in the second example, a Japanese reporter is quoted, defending the Reagan government's blocking the acquisition of a big U.S. chip producer by Fujitsu. This normative a minore argument, too, receives its strength from the fact that it is *prima facie* most unlikely that a Japanese would defend this preventive measure as being right. This form of argumentation could be criticized by looking for rebuttals which would show that the respective persons don't uphold their 'normal' views and/or have biased opinions in the case under discussion.

I end by giving two examples of fictitious a minore argumentation. I take them from A. Christie's novel *Death on the Nile*. (Note that also *within* the

fictional universe of discourse of the novel the two examples are instances of fictitious argumentation.)

He would have wanted to marry her even if she had been practically penniless, instead of one of the richest girls in England. Only, fortunately, she was one of the richest girls in England.

A. Christie, *Death on the Nile*. Glasgow: Collins (Fontana Paperbacks) 1984, p. 10)

Even if I were to - kill her, you couldn't stop me. (Jacqueline de Bellefort)  
No - not if you were willing to pay the price. (Hercule Poirot)  
(*ibid.*, p. 50)

In the first example, Lord Charles Windlesham reflects upon his possible marriage to Linnet Ridgeway. His descriptive a minore argumentation is rather explicit: only the conclusion is left out. The argumentation consists of a counterfactual warrant and a factual argument. The conclusion remains implicit, being almost evident: if Windlesham would have married Linnet Ridgeway even under the counterfactual condition of her complete poverty, it's most plausible to conclude to marry her, given the real circumstance that she is very rich.

The second a minore argumentation is more implicit. In this dialogue-fragment, Jacqueline de Bellefort tells Christie's mastermind Hercule Poirot explicitly only the counterfactual warrant. The argumentation and the conclusion remain implicit and could be reconstructed from the context as follows:

I'm only bothering Linnet Ridgeway and Simon Doyle with scenes of jealousy - which is a less important (not even criminal) offence -, so you can't stop me (at all).

Poirot is convinced by this argumentation, but reminds Jacqueline de Bellefort of the consequences of killing (and as all readers of *Death on the Nile* know, she had to bear the consequences).

### 6. CONCLUSION

The example of the a *maiore/a minore* argumentation has shown the applicability of a semantic classification to instances of everyday argumentation. Of course, there are many problems I could not treat sufficiently here, especially the methods for the explicitization of unexpressed premisses. Concerning the scheme I took as my example, I want to add the final remark that a *maiore/a minore* argumentation has interlingual and intercultural relevance. This can be demonstrated by the existence of the scheme of

argumentation in other languages (e.g. in German, it is indicated by the particles 'sogar', 'erst recht', 'nicht einmal'; cf. Engel 1988: 764ff.; in French, it is indicated by the particle 'même' cf. Anscombe/Ducrot 1983: 57ff.) and in other cultures (for the use of a maiore/a minore argumentation in ancient Greek and Latin rhetoric cf. Kienpointner 1992, 180f.)

## REFERENCES

- Anscombe, J. and O. Ducrot, (1983): *L'Argumentation dans la langue*. Bruxelles: Mardaga.
- Aristotle (1958): *Topics and Sophistical Refutations*. Ed. by W.D. Ross. Oxford: Oxford University Press.
- Aristotle (1959): *Rhetoric*. Ed. by W.D. Ross. Oxford: Oxford University Press.
- Eemeren, F.H. van and R. Grootendorst (1984): *Speech Acts in Argumentative Discussions*. Dordrecht: Foris.
- Eemeren, F.H. van and T. Kruiger, (1987): *Identifying Argumentative Schemes*. In: Eemeren, F.H. van et al. 3A. 70-81.
- Eemeren, F.H. van, R. Grootendorst, J.A. Blair and Ch.A. Willard, (eds.) (1987): *Argumentation: Across the Lines of Discipline (-PDA 3). Argumentation: Perspectives and Approaches (-PDA 3A). Argumentation: Analysis and Practices (- PDA 3B)*. Dordrecht: Foris.
- Engel, U. (1988): *Deutsche Grammatik*. Heidelberg: Groos.
- Fisher, A. (1988): *The Logic of Real Arguments*. Cambridge: Cambridge UP.
- Govier, T. (1987): *Problems in Argument Analysis and Evaluation*. Dordrecht: Foris.
- Jackson, S. (1987): *Rational and Pragmatic Aspects of Argument*. In: Eemeren, F.H. van et al. 3. 217-227.
- Kienpointner, M. (1992): *Alltagslogik*. Stuttgart: Frommann-Holzboog.
- Lewis, D.K. (1973): *Counterfactuals*. Cambridge/Mass.: Harvard University Press.
- Miéville, D. et al. (1989): *La négation. Contre-argumentation et contradiction*. Neuchâtel: Centre de recherches sémiologiques.
- Nolt, J.E. (1987): *Dilemmas of the Inductive/Deductive Distinction*. In: Eemeren, F.H. van et al. 3A. 418-425.
- Peirce, Ch.S. (1973): *Lectures on Pragmatism/Vorlesungen über Pragmatismus*. Hg. v. E. Walther. Hamburg: Meiner.
- Perelman, Ch. and L. Olbrechts-Tyteca, (1971): *The New Rhetoric: A Treatise on Argumentation*. Notre Dame/Indiana: University of Notre Dame Press.
- Quirk, R./Greenbaum, S./Leech, G./Svartvik, J. (1985): *A Comprehensive Grammar of the English Language*. London/New York: Longman.
- Schellens, J. (1985): *Redelijke Argumenten*. Utrecht.
- Scriven, M. (1987): *Probative Logic: Review & Preview*. In: Eemeren, F.H. van et al. 3. 7-32.
- Toulmin, St., R. Rieke and A. Janik, (1984): *Introducing to Reasoning*. New York: Macmillan.
- Weddle, P. (1987): *Informal Logic and the Deductive-Inductive Distinction*. In: Eemeren, F.H. van et al. 3. 383-388.
- Wright, G.H. van (1974): *Erklären und Verstehen*. Frankfurt/M.:
- Zillig, W. (1982): *Bewerten*. Niemeyer: Tübingen.