

IS O. DUCROT'S "NEGATION LAW" FALLACIOUS?

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DUCROT'S PROGRAM OF AN « INTEGRATED RHETORIC »

A rupture

Our general framework challenges the opposition between semantics and pragmatics as it has been introduced by the neo-positivists and then used by most semanticists, especially American....

« L'argumentation dans la langue » (1975) in *L'argumentation dans la langue* (chap 2) 1988 (AL)

A « new » paradigm

For me, reasoning and argumentation belong to two quite different orders, the order commonly called « logic » and the order that I will call « discourse » [...]

[In a discourse], the link between utterances has an internal origin; it is based on the very nature of the utterance or, if you prefer, its meaning, not on the state of the world it refers to.

« Argumentation et raisonnement » in *Les échelles argumentatives (Argumentative scales)* (EA)



DUCROT'S PROGRAM OF AN « INTEGRATED RHETORIC »

« ... the question is whether the starting point of the description of statements in natural language should be to determine their truth values.... »

Theses

« ... one of our basic postulates is that to semantically describe the infinity of the [possible] utterances, it is possible to use the preliminary description of a more abstract system, the system of sentences (*phrases*) (a term we now prefer to “utterance”...) »

“Echelles argumentatives, échelles implicatives, et lois du discours” in AL (chap 3)

« ...the leading idea of the [my] theory of argumentation is that the sense of a sentence (*énoncé*) contains an allusion to its possible continuation » (EA, p 11)

« ...all the sentences (*énoncé*) of a language get their meaning from the fact that they are given to lead to a specific kind of conclusion » (EA, p 11-12)

A new (linguistic) version of the Kantian analytic / synthetic distinction ?



DUCROT'S METHOD

Ducrot's most typical method is the plausibility, or implausibility, of some linguistic sequences.

Problem (See « Argumentation et raisonnement » in EA)

Who is the most reliable of X and Y to help you making clear some points about *La Comédie humaine* (a huge set of Balzac's novels) ? knowing that:

- (1) X hasn't read all of Balzac's novels.
- (2) Y has read some of Balzac's novels.



DUCROT'S METHOD

Who is the most reliable of X and Y to help you making clear some points on La Comédie humaine (a huge set of Balzac's novels) ? knowing that:

- (1) X hasn't read all of Balzac's novels.*
- (2) Y has read some of Balzac's novels.*

Ducrot (and « logic » !) : Y is more reliable than X
Empirical psychology : X is more reliable than Y

Ducrot explains:

- (2) can be followed by « So, Y can perhaps help you »
- (1) can't be followed by « So, X can perhaps help you »

Ducrot sees a connection between his « integrated rhetoric » and Aristotle's *Topica* :

« It is about the relations between utterances that the common sense of a time takes as plausible: you can influence judges and voters to show that. [...] In a particular society, some utterances are characterized by the power they have to lead towards some others »

(EA, p 11)



SUMMARY

Ducrot does not deny the existence of occasional « logical » relations and psychological effects

But « the pragmatic value » of persuasion by means of his « integrated rhetoric »

- does not depend on a local « conversational frame » (~~Grice~~)
- does not depend on the agents (interaction)
- only depends on an ideal [my term] language used by ideal speakers
(« Structuralism of ideal discourse » (EA, p 11))
- («standard») logic is not « fondamental » for semantic analysis
- « psychology » (subjective or general) is irrelevant



DUCROT'S NEGATION LAW

Two versions

Short

« Si c est un argument pour r , $-c$ est un argument pour $-r$ »

(AL, chap 4 « Lois logiques et lois argumentatives », p 99)

« *If c is a reason for r , $-c$ is a reason for $-r$* »

Long

« Nous considérons comme **une loi empirique** que, si un énoncé p est utilisé par un locuteur pour soutenir une certaine conclusion, sa négation (notée $-p$) sera considérée par ce même locuteur comme un argument pour la conclusion opposée » (EA, p 27)

« *We take as an **empirical law** that if a statement p is used by a speaker to support a certain conclusion, its negation (written $-p$) will be considered by the same speaker as an argument for the opposite conclusion*”.



DUCROT'S NEGATION LAW

« Si c est un argument pour r , $-c$ est un argument pour $-r$ »
« *If c is a reason for r , $-c$ is a reason for $-r$* »

Evidence

« ... une quasi régularité suggérée par l'observation des énoncés » (AL, p 99)
« ... *a quasi-regularity suggested by the observation of utterances* »

NB: To establish his law, Ducrot calls only to « empirical » considerations, not his « integrated rhetoric »

- He provides confirming examples (So, his law sometimes works ...)
- He grants counter-examples. (EA, p 28) (I bet I could provide a counter-example for each confirming example...)
- He does not provide any systematic (statistical) empirical support

MY CONCLUSION : The « empirical » support of his law is weak ...



DUCROT'S NEGATION LAW

- « Si c est un argument pour r , $-c$ est un argument pour $-r$ »
 - « *If c is a reason for r , $-c$ is a reason for $-r$* »

Ducrot also indirectly calls to Aristotle's authority (*Topica* 2, 113...)

« Rapprochant la sémantique argumentative de la *Rhétorique* et des *Topiques* d'Aristote, Eggs (1978), signale que notre *Loi de Négation* reprend le « lieu des contraires » souvent énoncé par Aristote: « ...s'il n'existe aucune consécution [**parallèle ou croisée**] entre le contraire de l'un des termes du problème et le contraire de l'autre, il est clair qu'il n'en existe pas de l'un à l'autre de ces termes ... » *Top.* 113b ...

[...]

En remplaçant dans le texte des *Topiques* « contraire » par « négation » [!!!!] et « consécution » par « possibilité d'argumenter » [!!!!] , on obtient immédiatement notre *Loi de Négation*, qui donne à la notion « être un argument pour » un comportement qu'il serait absurde d'attribuer à la notion logique d'implication définie en termes de valeur de vérité. » (AL, p 101)

“By making a link with Aristotle's argumentative semantics of the *Rhetoric* and the *Topica*, Eggs (1978) points out that our Law of Negation takes up the “commonplace of opposites” often stated by Aristotle: “... if there is no “relation of following” [**directly or conversely**] between the opposite of one of the terms of the problem and the opposite of the other, it is clear that there is no relation between the two terms...” *Top.* 113b.

[...]

By replacing in the text of the *Topica* « contrary » by « negation » [!!!!] and “follow upon” by “possibility to argue”, we immediately get our Negation Law, which gives to the notion of “being an argument for” a behavior that it would be absurd to attribute to the logical notion of implication (entailment?) defined in terms of truth value.”



DOES ARISTOTLE SUPPORT DUCROT'S NEGATION LAW ?

« Si c est un argument pour r , $-c$ est un argument pour $-r$ »
« *If c is a reason for r , $-c$ is a reason for $-r$* »

What does Aristotle say?

On Sophistical Refutations (167b): About the paralogism (fallacy) of the « consequent » (not about negation...)

« La réfutation qui tient au conséquent se produit parce que l'on croit que la relation de conséquence est réciproque. En effet, chaque fois qu'il est nécessaire que, si ceci est, cela soit, **on** croit que si cela est, il est nécessaire que ceci soit aussi ». (Brunschwig)

« *The refutation which depends upon the consequent arises because **people** suppose that **the relation of consequence is convertible**. For whenever, suppose A is, B necessarily is, **they** then suppose also that if B is, A necessarily is.* »

(Pickard-Cambridge)



DOES ARISTOTLE SUPPORT DUCROT'S NEGATION LAW ?

And in Topica 2, 113b 15 ...

Four « types of opposition »... (Contradiction, contrary, privation (and possession), relation)

Contradiction

« Examiner les termes contradictoires ... en ordre croisé »

« Si par exemple l'homme est animal, ce qui n'est pas animal n'est pas homme »

« ... « **homme** » implique « **animal** », mais ce n'est pas « **non-homme** » qui implique « **non-animal** », c'est à l'inverse « **non-animal** » qui implique « **non-homme** ». On doit donc poser qu'il en est ainsi dans tous les cas »

« *You should look for arguments among the contradictories of your terms, converting the order of their sequence...* »

« *If man be an animal, what is not an animal is not a man » and likewise also in other instances of contradictories... »*

« *'animal' follows upon 'man', but 'not-animal' does not follow upon 'non-man', but conversely 'not-man' upon 'non-animal'. In all cases, therefore, a postulate of this sort should be made.* »

Aristotle does not support Ducrot's law in the case of contradiction.

Aristotle : « *If c is a reason for r, - r is a reason for - c* » (« *Converse* », « *croisé* », « *Contraposition* »)



DOES ARISTOTLE SUPPORT DUCROT'S NEGATION LAW ?

« Si c est un argument pour r , $-c$ est un argument pour $-r$ »
« *If c is a reason for r , $-c$ is a reason for $-r$* »

Contrary (Ducrot's point)

« Examiner aussi les contraires, pour voir si le contraire de l'un des termes implique bien celui de l'autre, soit en ordre parallèle, soit en ordre croisé. »

Des cas croisés, des cas parallèles....

« ... la « bonne forme » entraîne la santé, mais ce n'est pas la « mauvaise forme » qui entraîne la maladie, c'est la maladie qui entraîne la « mauvaise forme ». **Mais ce croisement est peu fréquent dans le cas des contraires, la consécution s'y fait le plus souvent en ordre parallèle** ».

Août 22: Réfutation sophistiques: 5 et 28. L'argument de Melissus est fallacieux parce qu'il estime que l'opposé du premier entraîne l'opposé du second. Trad Hecquet-Devienne

« Then look also at the case of the contraries of S and P in the thesis, and see if the contrary of the one follows upon the contrary of the other, either directly or conversely... »

Some cases are direct, other converse...

« ...Health follows upon vigour, but disease does not follow upon debility; rather debility follows upon disease. In this case, then, clearly the sequence is converse. **Converse sequence is, however, rare in the case of contraries; usually the sequence is direct.** »

Here we note a partial agreement between Aristotle and Ducrot.



DOES ARISTOTLE SUPPORT DUCROT'S NEGATION LAW ?

Privation/possession

« Le croisement n'existe pas dans le cas des privations, **la consécution devant toujours s'y faire en ordre parallèle**, comme de « vue à sens » et de « cécité à insensibilité ». »

« *In the case of such privations the converse sequence does not occur: **the sequence is always bound to be direct**: e.g. as sensation follows sight, while absence of sensation follows blindness.* »

Relation

« On doit également traiter les relatifs de la même façon que la privation: en effet, **dans ce cas encore, la consécution est parallèle. Par exemple, si le triple est un multiple, le tiers est un sous-multiple.** [...] Objection: il n'est pas nécessairement vrai que dans le cas des relatifs, la consécution se fasse comme on vient de le dire: en effet, le sensible est connaissable, mais la sensation n'est pas connaissance. Il faut dire toutefois que la légitimité de cette objection n'est pas universellement admise...»

« *The case of relative terms should also be studied in like manner to that of a state and its privation: for **the sequence of these as well is direct; e.g. if 3/1 is a multiple, then 1/3 is a fraction** [...] An objection may be made that there is no necessity for the sequence to take place ... in the way described: for the object of sensation is an object of knowledge, where as sensation is not knowledge. The objection is, however, not generally received as really true....* »

Aristotle supports Ducrot ... but in a different field.



DOES ARISTOTLE SUPPORT DUCROT'S NEGATION LAW ?

(My) general conclusion about the evidence supporting Ducrot's law:

There are cases supporting it So, Ducrot's law is not always false.

It would rather be a Law of contraries than a Law about negation.



TWO FORMAL FALLACIES

Four similar (« Stoic ») formal arguments using the same conditional and playing on the order of the terms and the presence (or not) of a double negation.

Two (deductively) valid forms:

Modus ponens

If p, then q	<i>Si c'est de la bile, c'est jaune</i>
p	<i>C'est de la bile</i>
Therefore	<i>Donc</i>
q	<i>C'est jaune</i>

Modus tollens

If p, then q	<i>Si c'est de la bile, c'est jaune</i>
- q	<i>Ce n'est pas jaune</i>
Therefore	<i>Donc</i>
- p	<i>Ce n'est pas de la bile</i>

Two fallacious (« attractive ») forms:

Affirming the consequent (Ar. « Consequent »)

If p, then q	<i>Si c'est de la bile, c'est jaune</i>
q	<i>C'est jaune</i>
Therefore	<i>Donc</i>
p	<i>C'est de la bile</i>

Denying the antecedent (Ar. bad contrad.)

If p, then q	<i>Si c'est de la bile, c'est jaune</i>
- p	<i>Ce n'est pas de la bile</i>
Therefore	<i>Donc</i>
- q	<i>Ce n'est pas jaune</i>

Ducrot's negation law ?

NB1: Conditionals have been a thorny topic at least since the Philo/Diodorus debate





WHAT « LOGIC » SAYS

To avoid a misunderstanding about « what logic says » ...

Does « logic » say that the following three propositions cannot be true at the same time ?

1. p is a reason for q (If p then q)
2. $\neg p$
3. $\neg q$

Si c'est de la bile, c'est jaune
Ce n'est pas de la bile
Ce n'est pas jaune

NO ! Logic does not forbid this possibility. Logic only says that 1 and 2 are not *sufficient* to conclude 3. In other words, 3 cannot be warranted on the only basis of 1 and 2.

1. p is a reason for q (If p then q)
2. $\neg p$

Si c'est de la bile, c'est jaune
Ce n'est pas de la bile

Therefore (is abusive, risky ...)

3. $\neg q$

Ce n'est pas jaune

Many contemporary authors have tried to explain or « save » this fallacy. For instance you can conceive many alternatives making weaker claims ... e.g. when 1 and 2 are true, 3 is likely or probably true ... Pragmatic considerations (not in Ducrot's sense) have also been considered.



UNCONDITIONAL FALLACIES

« Si c est un argument pour r , - c est un argument pour - r »
« *If c is a reason for r , - c is a reason for - r* »

Objection: Despite its form, Ducrot's law is not about a matter of « logical conditional »

But the fallacy does not depend on the conditional form, but on the justification of a consequence

« **Denying the antecedent** » in Ducrot's words :

« Si c est un argument pour r , - c est un argument pour - r » **Ducrot's law !**
« *If c is a reason for r , - c is a reason for - r* »

Remember: Aristotle condemns it in the *Topica* about contradiction :
« **'animal' follows upon 'man', but 'not-animal' does not follow upon 'non-man', but conversely 'not-man' follows upon 'non-animal'. It all cases, therefore, a postulate of this sort should be made.** »



WILL DUCROT DROP LINGUISTIC FOR PSYCHOLOGY?

Aristotle and Ducrot make two psychological (or anthropological) empirical claims :

« *The refutation which depends upon the consequent arises because **people** suppose that the relation of consequence is convertible. For whenever, suppose A is, B necessarily is, **they** then suppose also that if B is, A necessarily is.* »
(Aristotle ... AC)

« *The refutation of denying the antecedent arises because **people** suppose that the relation of consequence works directly with the negation. For whenever, suppose A is, B necessarily is, **they** then suppose also that if -A is, -B necessarily is.* »
(Ducrot rephrased and converted to mass psychology? ... DA)

Or, more vaguely, as is well-known: « People often mix necessary and sufficient conditions »...

Like Ducrot's law, a fallacy can have « ... une quasi régularité suggérée par l'observation des énoncés » (AL, p 99) « ... a quasi regularity suggested by the observation of utterances (statements?) »

Hence : Since there are confirming cases, when is Ducrot's law correct?



WHEN IS DUCROT RIGHT ?

Ducrot gave us a hint : « *By replacing in the text of the Topica «contrary» by «negation» ... »*

« *a quasi-regularity suggested by observation* » : a confusion between « contrary », « opposite » and « negation ».

What is the contrary of « hot » ? What is the negation (contradiction?) of hot ?

I suggest : *The contrary of « hot » is « cold » (warm is left somewhere between)*
The negation of « hot » is « non-hot » (including warm)

Let us presume the simple unconditional relation (for instance about a bath):
« Hot therefore pleasant. » (If it is hot, it is pleasant)

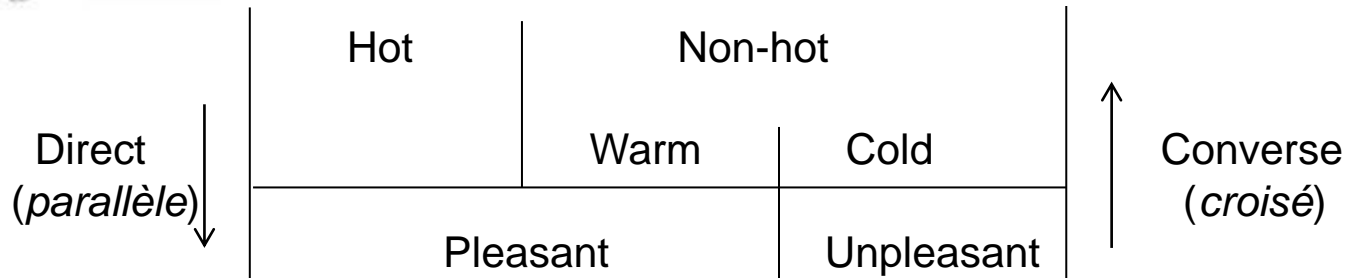
Therefore

- « Not hot therefore unpleasant » (Negation Law)
- « Cold therefore unpleasant » (Contrary Law)



WHEN IS DUCROT RIGHT ?

Suppose we also have: « Warm therefore pleasant », then :



In this configuration (among possible other ones), we have :

- « Hot therefore pleasant. »
- « Warm therefore pleasant. »
- « Cold therefore unpleasant »

What about « negation » ?

Contradiction : « Unpleasant » therefore « Non-hot »

Ducrot's Negation law : « Non-hot » therefore « Unpleasant »

Ducrot's Contrary law : « Cold » therefore « Unpleasant »

OK

Sometimes OK

OK

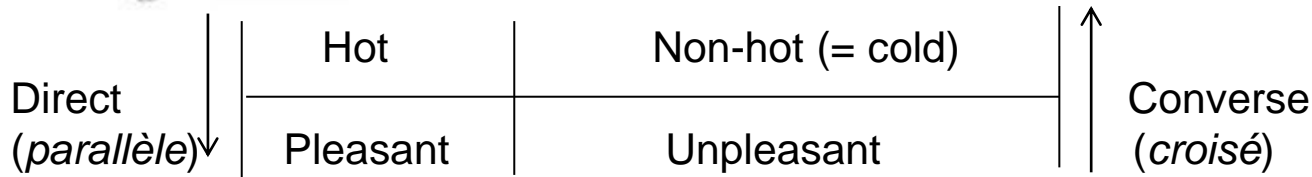
The trouble comes from the intermediate case ...





SOMETIMES DUCROT IS RIGHT

Two dichotomies, so that contradiction and contrariety match.



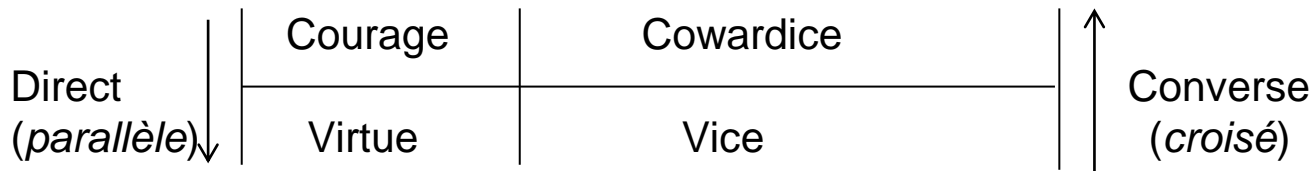
« Contradiction » : OK

Ducrot's Negation law : OK

Ducrot's Contrary law : OK

100% of success !!! (Logical equivalence !)

This is the case of one of Aristotle's example of « direct » contrariety : « ... *the sequence is direct in a case such as that of courage and cowardice : for upon the one of them virtue follows, and vice upon the other...* »



But is « non virtue » vice ? As Aristotle stresses it, there might be objections ...



CONCLUSION

Ducrot would have made a good (but already well-known) point if he had mixed two things that he wrote and taken into account my addition :

« *We take as ~~an empirical law~~ a quasi-regularity suggested by the observation of utterances that if a statement p is used by a speaker to support a certain conclusion, its negation (written $\neg p$) will OFTEN be considered by the same speaker as an argument for the opposite conclusion*”

And doing that, I (kindly) accuse him of committing the fallacy of hasty generalization, by calling a law what is, up to now, at most a quasi-regularity.



Thank you for your attention !