

ISSA Proceedings 2014 ~ A Dialectical Profile For The Evaluation Of Practical Arguments

ABSTRACT: This paper proposes a dialectical profile of critical questions attached to the deliberation scheme. It suggests how deliberation about means and about goals can be integrated into a single recursive procedure, and how the practical argument from goals can be integrated with the pragmatic argument from negative consequences. In a critical rationalist spirit, it argues that criticism of a proposal is criticism of its *consequences*, aimed at enhancing the rationality of decision-making in conditions of uncertainty and risk.

KEYWORDS: critical discourse analysis, critical rationalism, critical questions, decision-making, deliberation, dialectical profile, policy evaluation, practical argument, uncertainty and risk

Introduction

This paper develops the analytical framework for the evaluation of practical arguments in political discourse presented in Fairclough & Fairclough (2011, 2012), where a more systematic “argumentative turn” was advocated for the field of Critical Discourse Analysis (CDA). It develops a proposal for a set of critical questions aimed at evaluating decision-making in conditions of incomplete knowledge (uncertainty and risk). The questions are briefly illustrated with examples from the public debate on austerity policies in the UK, following the first austerity Budget of June 2010 (Osborne 2010). For a more detailed analysis of the 2010 austerity debate, see Fairclough (2015).

Reasonable Decision-Making In Conditions Of Incomplete Information

Practical reasoning has been studied in informal logic and pragma-dialectics (Walton 2006, 2007a, 2007b; Walton, Reed & Macagno, 2008; Hitchcock 2002; Hitchcock, McBurney & Parsons, 2001; Garssen 2001, 2013; Ihnen Jory 2012) and sets of critical questions have been proposed for its evaluation. In what follows I will outline my own version of the critical questions for the evaluation of practical arguments, together with their theoretical underpinning, i.e. a critical rationalist view of the function of argument and of rational decision-making (Miller 1994,

2006, forthcoming). On this view, the function of argumentation is essentially *critical* and the best rational agents can do before adopting a practical or theoretical hypothesis is to subject it to an exhaustive critical investigation, using all the knowledge available to them. The decision to adopt a proposal A is reasonable if the hypothesis that A is the right course of action has been subjected to critical testing in light of all the knowledge available and has withstood all attempts to find critical objections against it. By critical objection I understand an overriding reason why the action should not be performed, i.e. a reason that has normative priority and thus cannot be overridden in the context. Essentially, criticism of a hypothesis is criticism of its *consequences*, not criticism of any premises on which it allegedly based. A critical rationalist view is anti-justificationist, and rationality is seen to reside in the *procedure* of critical testing; it is a *methodological* attitude.

Critical testing will necessarily draw on the knowledge or information that is available to the deliberating agents, and this is almost always limited. How should this knowledge be used if it is to enhance the rationality of decision-making? The critical rationalist answer is that knowledge should be used *critically*, in order to criticize and eliminate proposals, not inductively, i.e. not in order to seek confirmation of their (apparent) acceptability. Potential unacceptable consequences can constitute critical objections against doing A, unless critical discussion indicates that they should be overridden by other reasons.

Let us consider the case of risk first. If a definite prediction could be made that such-and-such unacceptable consequences will follow from doing A, this would provide an overriding reason why A should not be performed. But such definite predictions about the future are hard to make. On a critical rationalist perspective, rational decision making in conditions of risk can be made, however, without relying on probability calculations, by following a “minimax strategy” which says: “try to avoid avoidable loss” (Miller forthcoming). This can be done by insuring in advance against possible loss (e.g. insuring one’s property against various eventualities), or in the sense of making sure that there is some alternative route or some “Plan B” that one can switch to, should the original proposal start to unfold in an undesirable way, i.e. produce undesirable effects.

Unlike risk, which presupposes some calculation is possible, uncertainty does not involve *known* possible outcomes and frequencies of occurrence, derived from information about the past, but future developments which cannot be calculated.

Incomplete knowledge manifests itself in this case not only as “known unknowns” but also as “unknown unknowns”, and it is impossible to predict how the proposed action, as it begins to unfold, might interact with these. Economic policy, for example, involves primarily uncertainty rather than risk, as it unfolds against a background of unpredictable world events about which little if any calculation of probability can be made. The critical rationalist answer (Miller forthcoming) to the problem of uncertainty says that it is more reasonable to choose a proposal that has been tested and has survived criticism than one which has not been tested at all. In conditions of bounded rationality, a sub-optimal (“satisficing”) solution that is *known* to work, if available, is preferable both to an extended quest for a maximally rational solution or to the adoption of an untested, new proposal, however promising that proposal may seem.

Critical Questions For The Evaluation Of Practical Arguments

In pragma-dialectics (van Eemeren 2010), dialectical profiles are normative constructs associated with particular argumentation schemes. They are systematic, comprehensive, economical and finite. In light of my methodological commitment to critical rationalism, according to which “rational decision making is not so much a matter of making the right decision, but one of making the decision right” (Miller 1994, p. 43; Miller 2006, pp. 119-124), critical testing of a proposal by means of an ordered and finite set of critical questions should aim to enhance the rationality of the decision-making *process*, not to produce the “most rational” decision (Fairclough & Fairclough 2012, pp. 49-50).

I start from the (presumptive) practical argument scheme originally defined by Walton (2006, 2007a), which I am re-expressing as argumentation from circumstances, goals (underlain by values or some other normative source) and a means-goal relation (Fairclough & Fairclough 2012). This structure can be represented as follows:

The agent is in circumstances C.

The agent has a goal G.

(Goal G is generated by a particular normative source.)

Generally speaking, if an agent does A in C then G will be achieved.

Therefore, the Agent ought to do A.

A fundamental distinction is made by Walton (2007b) among three types of critical questions: questions that challenge the validity of the argument, questions

that challenge the truth of the premises and questions that challenge the practical conclusion. Along these lines, I am suggesting that challenging the practical conclusion is the most important type of testing, as it is the only one that can falsify (rebut) the practical proposal itself. It can do so, I argue, by means of an argument from negative consequence, i.e. a counter-argument, or an argument in favour of *not* doing A:

If the Agent adopts proposal A, consequence C will follow.

Consequence C is unacceptable.

Therefore, the Agent ought not to adopt proposal A.

Practical reasoning is a causal argumentation scheme (van Eemeren and Grootendorst 2004): the proposed action A will presumably result in such-and-such effect. But actions have both intended and unintended effects, and the same effect can result from a multiplicity of causes. First, the unintended effects can be such that the action had better not be performed, even if the intended effect (goal) can be achieved by doing A. If this is the case, then a critical objection to A has been exposed and the hypothesis that the agent ought to do A has been refuted. Secondly, among the alternative causes (actions) leading to the same effect, some may be preferable to others. If this is the case, as long as the goal and unintended consequences are reasonable, there is no critical objection to doing A, but some comparison between alternative proposals is possible so as to choose the one which is better in the context.

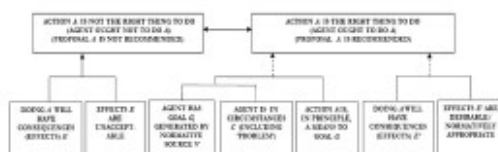


Figure 1. Practical reasoning in deliberative activity types: the deliberation scheme

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In deliberative activity types, the argument from goals and circumstances and the argument from negative consequence are related, I suggest, in the following way (Figure 1): the argument from negative consequence (on the left) is testing the *practical conclusion* of the argument from goals and circumstance (centre) and

can rebut that conclusion, if the undesirable consequence should constitute a critical, non-overridable objection against doing A.

If however the consequences are not unacceptable, then the agent may tentatively proceed with A, on the understanding that the proposal may still be rebutted at a later stage. The conclusion in favour of doing A can be thus strengthened by a presumptive argument from positive consequence (right-hand side). Saying that the effects are *not unacceptable* means that critical testing has not uncovered any critical objection to doing A: achieving the stated goals would (on balance) bring benefits, and the side effects would also be positive (on balance), as far as we can tell.

Deliberation is commonly said to involve a “weighing” of reasons, and the conclusion is said to be arrived at *on balance*. Against a context of facts that both enable and constrain action, and in conditions of uncertainty and risk (all of these being circumstantial premises), what is being weighed is the desirability of achieving the goals (and possibly other positive outcomes) against the undesirability of the negative consequences that might arise. Non-overridable reasons in the process of deliberation include any consequences that emerge on balance as unacceptable (e.g. unacceptable impacts on other agents’ non-overridable goals), as well as unacceptable impacts on the *external* reasons for action that agents have in virtue of being part of the social institutional world, what Searle (2010) calls *deontic reasons* – commitments, obligations, laws, moral norms. As institutional facts, these are supposed to act as constraints on action; going against them (e.g. by making a proposal that goes against the law or infringes some moral norm) is arguably unreasonable.

I suggest the following deliberative situation as a starting point: an Agent, having a stated goal G in a set of circumstances C, proposing a course of action A (or several, $A_1, \dots A_n$) that would presumably transform his current circumstances into the future state-of-affairs that would correspond to his goal G. Based on everything he knows, the agent is conjecturing that he ought to do A_1 (or A_2 or A_n) to achieve G. In order to decide rationally, the agent should subject each of these alternatives to critical testing, trying to expose potentially unacceptable negative consequences of each. If one or more reasonable proposals survive criticism, and are thus judged reasonable, the agent can then also test the arguments themselves, to determine whether any additional relevant fact in the particular

context at issue is defeating the inference to the conclusion that he ought to do A_1 ($A_2 \dots A_n$) in that context.

What is being evaluated, therefore, is primarily the proposal itself (the practical conclusion), and the way to do this is by examining its (potential) consequences. If more than one reasonable proposals have been selected, the arguments on which these proposals claim to rest can be evaluated as well, in order to choose the proposal that seems to satisfy a range of relevant concerns comparatively better than the others. A particular view of human rationality can be said to go hand-in-hand with this dialectical profile, a conception of bounded rationality (Simon, 1955; Kahneman, 2011): agents are reasonable in adopting a satisfactory (or “satisficing”) solution rather than in engaging in an extended quest for a “maximally rational”, “optimal” one. The point of asking the sequence of questions in the profile is therefore not to narrow down a range of alternative proposals to the one and only “best” one, but primarily to eliminate the clearly unreasonable ones from a set of alternatives. Critical testing will therefore fall into three kinds (Figure 2):

(1) Testing the premises of the argument from goals and circumstances, as a preliminary step to assessing the reasonableness of a proposal that should be able to connect a set of current state-of-affairs to a future state-of-affairs. This is needed because the proposal may be reasonable in principle, i.e. without unacceptable consequences, but may have little or no connection to the context it is supposed to address, and may therefore not be a “solution” to the actual “problem”.

(2) Testing the practical conclusion of the argument from goals, via a deductive argument from negative consequence. Applied recursively, this may lead to the rejection of one or more proposals and deliver one or more reasonable proposals for action (or none). The dialectical profile begins with the question aimed at the intended consequences of the proposal (here, CQ4).

(3) Testing the validity of the argument from goals, in order to choose one of the reasonable alternatives that have resulted from testing the practical conclusion; at this point, the critic will be looking at other relevant facts, besides those specified in the premises (e.g. other available means), that may indicate that doing A_n does not follow, thus suggesting that another reasonable alternative should be considered.

Challenging the rational acceptability ('truth') of the premises

(CQ1) Is it true that, in principle, doing $A_1 \dots A_n$ can lead to G?

(CQ2) Is it true that the Agent is in circumstances C (as stated or presupposed)?

(CQ3) Is it true that the Agent actually has the stated/presupposed motives (goals and underlying normative sources)?

Challenging the reasonableness of the conclusion

(CQ4) Are the intended consequences of doing $A_1 \dots A_n$ acceptable?

(CQ5) Are the foreseeable unintended consequences (i.e. risks) of doing $A_1 \dots A_n$ acceptable? [If not, is there a Plan B, mitigation or insurance strategy in place that can make it reasonable to undertake $A_1 \dots A_n$?]

Challenging the inference

(CQ6) [Among reasonable alternatives,] is A_n comparatively better in the context?

Figure 2. Critical questions for the evaluation of practical arguments

The critical questions (CQ) are summed up in Figure 2 and illustrated below:

CQ1 Is it true (rationally acceptable) that, in principle, doing A leads to G?

"Doing A leads to G" is a soft generalization that can be tested against all the information at the critic's disposal. There can be exceptions to it, which is why, as long as it is acceptable that in principle it is not impossible for the goal to be achieved by doing A, the critic can move on to the next questions. If it is not acceptable that it is in principle possible to achieve G by doing A, then a new conjecture is needed: the agent should go back to the starting point and, in light of his stated goal G, he should figure out another possible means.

One line of attack against austerity policies in the UK has challenged the means-goal premise. The critics have challenged the government's belief in the possibility of achieving economic recovery by means of austerity. Bringing examples from the Great Depression and from Japan's history of stagnation, they argued that, *in general*, by killing demand, austerity invariably fails to deliver the goals. According to these critics, some other means has to be sought and tested.

CQ2 Is it true (rationally acceptable) that the Agent is in circumstances C?

This amounts to asking whether the stated (or presupposed) circumstances (including the "problem") are such as they are being represented. If the answer is

negative, then the agent will be redirected to the starting point and will need to revise the description of the circumstances, then make a new conjecture about what action will resolve his problem. Critics of austerity have challenged the government's representation of the current situation in Britain (as an economy "in ruins", in a state of emergency similar to that of Greece) and its associated explanation. For example, they have denied that the crisis is one of excessive spending and the product of the Labour government's profligacy, insisting that it was the banking sector that caused the crisis.

CQ3 Is it true (rationally acceptable) that the agent is actually motivated by stated goals/ values/concerns?

Normally, it is taken for granted that this is the case. But sometimes arguments are *rationalizations*: the stated (overt) reasons are not the real reasons; there are other (covert) reasons driving the proposed action (Audi 2006). For example, critics of the government have challenged the government's alleged concern for "fairness", or have argued that austerity policies are in fact ideology-driven (Krugman 2010), and that the real goal is to "complete the demolition job on welfare states that was started in the 1980s" (Elliott 2010).

If either of these three questions yields negative answers, then the decision-making process is redirected to its starting point and will have to start again, with (a) a different means-goal premise; (b) a more accurate representation of what the situation/problem is, or (c) another overt goal or normative concern - one that is not in contradiction with the facts available to the critic. These three possible loops back to the starting point are designed to ensure that, before the proposal itself is actually tested at the next stage, there has been adequate critical scrutiny of a number of assumptions: that the situation *is* as described, the goals and values *are* those that are overtly expressed, and the proposed means *is* at least in principle capable of delivering the goal. These first three questions do not yet aim to achieve a narrowing down of potential proposals. They cannot be ordered among themselves and are not part of the dialectical profile. *Assuming there is intersubjective agreement* on an affirmative answer to these three questions, critical testing of the proposal itself begins with CQ4.

The main stage in the critical testing process is the testing of the practical conclusion, i.e. the proposal to do A_1 (or $A_2, \dots A_n$), or the conjecture (hypothesis) that doing A_1 (or $A_2, \dots A_n$) is the right thing to do. This is done by examining the

consequences of each proposal, based on all the information available. The following two questions, CQ4 and CQ5, should be asked for each conjecture $A_1 \dots A_n$, and failure to answer them satisfactorily may indicate that the proposal ought to be abandoned:

CQ4 Are the intended consequences of A (i.e. the stated goal) acceptable?

CQ5 Are the foreseeable unintended consequences of doing A acceptable? If not, is there an acceptable Plan B, or some other form of redressive action available?

CQ4 asks whether the stated goal (the intended consequence) is acceptable, and CQ5 asks whether the unintended consequences (should they occur) are acceptable, as far as they can be foreseen, based on all the facts at the critic's disposal. Ideally, "acceptability" is to be tested from all the relevant normative perspectives (e.g. rights, justice, consequences, other relevant concerns) and from the point of view of all the participants concerned. Not all relevant normative perspectives are equally important in each particular case, which is why a notion of ranking, of normative hierarchy is inherently involved at this point and the conclusion is typically arrived at "on balance", after a process of deliberation. The following question-answer possibilities seem to exist:

CQ4 Are the intended consequences of A (i.e. the stated goals) acceptable?

No, (based on everything we know) the intended consequences are unacceptable → Abandon A.

A negative answer means that there are critical objections to A. Abandoning A can mean either doing nothing (refraining from action) or can lead to renewed deliberation about goals, i.e. going back to the starting point, so as to revise the goal and then make a new conjecture about what action will deliver this goal. The intended goal is unacceptable if, for example, it comes into conflict with other goals (of the agent or other relevant participants) or with deontic reasons that have normative priority (e.g. if the agent's goal comes into conflict with someone's else's rights, and the latter emerge as non-overridable from a process of critical discussion).

The answer to CQ4 can also be affirmative:

Yes, (based on everything we know) the resulting state-of-affairs will be acceptable → accept A provisionally and proceed to CQ5.

The answer "yes" to this question means that there are no overriding reasons why the goal should not be realized. The proposal can be accepted provisionally and

questioning can move on.

The next question (CQ5) inquires about the proposal's potential unintended consequences. Proposals can be eliminated on account of unacceptable side effects if, based on all the facts or information available to the deliberating agents, it can be reasonably maintained, after a process of critical examination, that there is a risk that such-and-such effects may occur and that there is no way of handling that risk (see below) in a way that should enable the agent to proceed with doing A. If, based on all the information available, the answer to CQ5 is negative, then at least two possibilities exist:

No, based on everything we know, the unintended consequences are not acceptable à (a) abandon A, if unacceptable side effects constitute critical objections to doing A; (b) proceed with A tentatively, if there is a way of dealing with potentially unacceptable consequences, should they materialize.

Answer (a) means that there are objections against A that cannot be overridden, therefore the agent should abandon A, as it was originally conceived, go back to the starting point, choose a different conjecture and start the testing process all over again. For example, austerity policies have been deemed unacceptable because, even assuming the long-term stated goal to be acceptable, they were said to have unacceptable side effects, e.g. a dramatic reduction in employment possibilities for young people, or the risk of a "lost generation" (Blanchflower 2011).

Answer (b) means that the unintended consequences that might occur are in principle unacceptable but, in the context, they do not constitute critical objections to A. This could be for several reasons, all making implicit or explicit reference to a notion of strategy. For example, it could be that an effective way of dealing with the unintended consequences, should they actually arise, has been identified. There is, for example, a "Plan B" that the agent can switch over to at a later date (should emerging feedback be negative), which is why he can get on with doing A, assuming the negative consequences will not materialize (because, if they do, he will be able to change course). It is also possible that the agent is in some way "insured" against potential loss, so once again he can get on with the action and assume these losses will not happen. The agent can also get on with doing A if he can at the same time engage in a broader strategy of action, involving at least another parallel line of action, whose role is to mitigate the negative effects of doing A: while austerity creates unemployment, the

government could simultaneously engage in a job-creation strategy for young people. It is also possible to reasonably persist in doing A in the face of emerging negative feedback if it can be reasonably argued that more time is needed before the intended consequences begin to appear (the situation “needs to get worse before getting better”). Finally, it is possible to answer CQ5 in the negative and, although no Plan B or other redressive action may exist, still decide to go ahead with A, thereby taking the risk of an unacceptable outcome. In such cases, although levels of “confidence” in a positive outcome (or in negligible levels of risk) may be high, there is a rationality deficit, and deciding to do A would be similar to a gamble.

The critics and defenders of austerity policies have exploited all these possibilities. Early in 2011, a fall in GDP for two consecutive quarters prompted the government’s critics to call explicitly for the adoption of a “Plan B”. The fact that the Chancellor was not willing to change course was taken as a failure of rationality, and as allegedly showing how power and vested interests were trumping the force of the better argument. It was also argued that the government’s strategy was inadequate in not taking measures to mitigate the impact of austerity by sufficiently stimulating various alternative sectors that could provide employment and growth – green industries, infrastructure projects. In their defence, the government denied that the side effects constituted critical objections, insisted that more time was needed for austerity to bear fruit, pointed to measures put in place to mitigate the impact of austerity on the poor, stressed the imperative of sticking to medium-term goals for the success of the overall strategy, and also claimed that the situation (the Labour “legacy”) was more serious than had been anticipated, hence the need for a reinterpretation of what would, on balance, constitute acceptable and unacceptable consequences.

The answer to CQ5 can also be affirmative:

Yes, (based on everything we know) the unintended consequences are acceptable à accept A provisionally and move on to CQ6.

A positive answer to CQ5 means that critical discussion has not found any critical objections, so A can be accepted provisionally (subject to future rebuttal) and questioning can move on. By contrast, a negative answer will redirect the deliberating agents to an antecedent stage of the testing process: they will either have to make a new proposal or revise the current one so as to avoid the unacceptable consequences, and then test these again, or abandon the proposal

completely and refrain from action. They can only reasonably proceed with a proposal that could have unacceptable negative consequences if there is an effective form of redressive action available, some effective insurance or a way of changing course, should the negative consequences actually materialize.

So far, CQ4 and CQ5 have tested the practical conclusion and may have indicated that doing A is unreasonable. It is possible that not only one but several alternative proposals have survived criticism at this stage. Is there a way of choosing among them in a particular situation? This is where looking at the argument itself will be useful. The attempt will be to think of *other* relevant facts in the particular situation at issue, in light of which it may not follow that the agent ought to do A. One fact that can defeat the inference is the existence of other “better” means of achieving the goal (CQ6).

CQ6 Among reasonable alternatives, is A comparatively better in the context?

This judgment will involve various evaluative perspectives. If, for example, efficiency or cost-benefit analysis are relevant perspectives for an agent, then, if there are more efficient alternatives than A, or if there are alternatives which offer more benefits or fewer costs than A, then it does not follow that the agent ought to do A. But neither does it follow that the agent ought not to do A, unless some critical objection can be uncovered in the form of some unacceptable intended or unintended consequence.

At this stage in the dialectical profile, the question is one of choosing, *among the reasonable alternatives* that have emerged from CQ4 and CQ5, the one course of action that best corresponds to a particular agent’s *de facto* overriding concerns (value preferences). In the 2010 Emergency Budget, for example, Chancellor Osborne advocated a particular distribution of the financial consolidation: 80% of the savings were to come from spending cuts, while 20% from tax rises. It can be argued, even by defenders of austerity, that this ratio could have been slightly different, while still being reasonable from the government’s point of view. In the context, however, the 80:20 split was justified by a *de facto* concern to increase Britain’s attractiveness for business: it was a “better” alternative than other possible splits aimed at achieving the same total amount of savings.

If CQ4 and CQ5 can rebut the practical conclusion, CQ6 can defeat the inference from the premises to the conclusion. While failure to provide a satisfactory answer to CQ4 and CQ5 may indicate that the agent ought not to do A, failure to

do so in the case of CQ6 will not indicate that the agent ought not to do A (i.e. that doing A is unreasonable, seeing as no unacceptable consequences have been revealed by either CQ4 or CQ5), but merely that the argument is defeated in the context, once one or more relevant premises are added to the premise set.

Conclusion

The most important questions in the set above (CQ4 and CQ6) are aimed at testing the practical conclusion by examining its consequences (thus trying to find critical objections against doing A). A practical argument is not evaluated only in terms of the instrumental adequacy of proposed means to pre-given goals. The goals themselves, as intended consequences of action, should be challenged and, if found unacceptable, the deliberative process should start again, with a new goal. Questions CQ4-CQ6 can achieve a progressive narrowing down of possibilities for action: proposals are tested in light of their consequences and eliminated if these consequences are on balance unacceptable; a principled choice among several reasonable proposals is also possible, in light of various contextually-relevant evaluative perspectives. The dialectical profile (CQ4-CQ6) I have suggested – as well as the wider set of questions (CQ1-CQ6) of which it is a part – integrate deliberation about means and deliberation about goals within a recursive procedure, which includes, at every stage, a loop back to the starting point or to some antecedent stage. A notion of *normative priority* enables the elimination of unreasonable alternatives (those that the agent *ought not* to choose, i.e. those whose consequences would be on balance unacceptable), while a notion of *de facto priority* (based on contextual value preferences) can *subsequently* select one better alternative among a set of reasonable alternatives.

The deliberation scheme and its attached set of critical questions connect two argument schemes, showing how an argument from negative consequence is used in deliberative activity types to test the practical conclusion of an argument from goals and circumstances. It thus hopes to reflect more adequately decision-making as a process governed by bounded rationality. Critical testing is not, even ideally, aimed at discovering the “best” solution, but at “weeding out” the unreasonable solutions and thus narrowing down a set of options. Having done that, it may move on to identifying a subset of comparatively better solutions amongst those reasonable alternatives.

The profile also integrates considerations of uncertainty and risk. This makes it a more realistic picture of how people act. Agents are almost always willing to allow

action to proceed even in conditions of uncertainty and risk. They will not necessarily discard a proposal that could have serious negative consequences but will try to tailor their action in such a way as to allow them to make piecemeal adjustments and revisions, should those potential unacceptable consequences materialize. Often, however, they will take the risk of acting even when no such possibilities of redressive action exist.

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ISSA Proceedings 2014 ~ The Possibility Of Visual Argumentation: A Point Of View



Abstract: The verbal and the visual are different complementary means for argumentation, and there is an uncontentious fact that visual argumentation exists. And, visual argumentation can learn much more from Frege's theory of meaning, which is helpful for the theoretical basis or the philosophical ground of visual argumentation. Finally, some further far-reaching questions are brought forth, especially about the schemes of visual argumentation, and the relation of visual argumentation to artificial intelligence.

Keywords: artificial intelligence, philosophical ground, visual argumentation, the context principle, the scheme of visual argumentation

1. Introduction

The visual usually can convey much more meanings that cannot be expressed as well through the verb. Then, can the visual express an argument or an argumentation?

For example, there is a picture (see Figure 1).



Figure 1

When you as an audience see the picture, what would you think? Perhaps there are at least three possibilities:

- (1) you don't know about the related context, so you could not understand what on earth the picture wants to express;
- (2) you don't know about its related context. You don't care about what it wants to express. You direct your attention at the eyes, the fingers, the color of the picture, and even the pencil, and so on;
- (3) you know about the related context, so you could know this is a poster, which is the poster of Hope Project "Big Eyes Girl" in China, and it appeals to the people to donate.

Suppose you could know about the related contexts, and understand what the picture wants to express. Then, as an audience you could have different attitudes to what the poster expresses. For example, three kinds of attitudes are as follows□

Approver A: Yes, I will and prefer to donate to the Hope Project.

Objector B: No, I will not donate to the Hope Project, because I am not very rich, and I myself also need donation.

Objector C: No, I will not donate to the Hope Project, because I don't believe its organizer. But I prefer to donate to the poor directly.

When the audiences begin their argumentations in their brains, the argumentations seem to take place. Here, some questions will be raised, which are too diversified for a paper, so I will talk some of them roughly:

(1) What are the challenges to the possibility of the concept of visual argumentation (VA for short)? This is about the realistic possibility of visual argumentation.

(2) Why VA is possible in the realm of argumentation? That is to say, how to make sense of the logical possibility of VA?

(3) How can the visuals express an argument or argumentation[i]? And some further questions raised by VA, for example, the schemes of visual argumentation, and the relation of VA to artificial intelligence (AI for short).

I agree with Birdsell and Groarke that the first step toward a theory of visual argument must be a better appreciation of both the possibility of visual meaning and the limits of verbal meaning. (Birdsell & Groarke, 1996) It is obvious that Birdsell & Groarke talk about this issue from pragmatics, not from semantics. I think this is a proper route for talking about this question. The following examples will illustrate three kinds of possibility of visual meaning.

2. What can VA learn from Chinese traditional culture?

2.1 Three relevant examples

The followed three examples are respectively from “The Book of Changes” in the Six Classics, poem and painting, and Buddhism. “The Book of Changes” (pronounced Yijing in Chinese) is one of the oldest philosophical books in China. In fact, it is also a book of drawings, and its representative image is in Figure 2.



Figure 2

When you look at this picture at the first sight, what do you think about? Two

parts, and eight hexagrams. The clarity is that the hexagrams are not only changing, but also changing regularly. The vagueness is that what on earth the hexagrams express. If you don't know the explanation about them, and you are difficult to know the meaning of them well and truly, then you cannot tell what they express. So, the clarity is that what the visual itself is. The vagueness is about what on earth the author wants to express.

In this case, we can not tell determinately what the drawing expresses. So, not every visual expresses an argument, just as not every sentence group expresses an argument. Perhaps in the cases like this, the visual can express some proposition, but not argument, because the author's purpose is not to argument something, but to explain something. Now we turn to the next example, which is the poem and painting. In china, there is a saying, no poem, no painting, and no painting, no poem. That is meaning though poem and painting are two different ways to express human's feelings/thoughts, they are the sameness at the level of logic. For example, the followed is a poem written by Su Shi, who was a famous poet in Song dynasty. This poem is well-known in China. The poem (see Figure 3) is translated as followed.

[Song dynasty] Su Shi:

From the side, a whole range; from the end, a single peak.

Far, near, high, low, no two parts alike.

Why can't I tell the true shape of Lu-shan?

Because I myself am in the mountain.



Written on the Wall at West Forest Temple

The meaning of this poem is what we saw is affected by the visual angle. Perhaps someone will bring forth an objection-alike here: according to what this poem means, there seems to that, similarly, different audiences cannot have the same thing in their brains for the same visual. My reply is: in this kind of objection

there is a difference neglected. What the author faced was a natural object, here is the mountain named Lu-shan. What the audiences face are man-made objects, for example, a drawing or a picture. The makers usually, although not always, try to express clearly what they want to express by the visuals.

If we must make a reason by analogy any way, the elicitation of the example is that the audience will have different visions if they see an object from different point of view; similarly, the audience will have different visions if they see a visual from different point of view, but vision / idea is different from thought[**ii**]. And, there is a fact that they can see the same thing, for example, it is a mountain or some parts of the same mountain or a visual or some parts of the same visual. The conclusion is: the audiences are affected by the point of view, and the audiences can see the same thing which I will expound in the second part; and, in essence, poem and the drawing is the same one, because they are the different representations of the same one, which is a kind of status. So, to some degree, the verbal and the visual is the same one, because they are the representations of the same one, which is also a kind of status. The visual is different from not only object, but also idea. The Visual is alike the verbal because both of them are the description of the being. The visual and the verbal are different complementary means for argumentation.

The third example talks about, according to Zen Buddhism, the reflection on the relation between the subject and the object. The great master in Zen Buddhism Qingyuan Xingsi in Tang dynasty said:

What you have seen, the mountain is the mountain, and the water is the water.
What you have seen, the mountain isn't the mountain, and the water isn't the water.
What you have seen, the mountain is still the mountain, and the water is still the water.

What the above said is there are three levels of outlook in Zen Buddhism: world with me, world without me (anatman), and world beyond me. The elicitation of "three levels of outlook" is that, at bottom, the understanding on the visual is limited and affected heavily by the understanding ability of the audiences. The audience is an important factor that impacts the running of the argumentation. What visuals are is affected by many factors, such as the points of view, and the levels of outlook.

Here, perhaps an objection will be brought forth, that the visual is ambiguous regarding that the audience have different levels of outlook. My answer is: to some degree, this proves well that VA is possible. Argumentation is interpersonal from the surface form, but it is personal from the inner intention.

2.2 Replies to some objections

Along with the birth of VA, there are many objections surrounding it. Here at least two objections will be discussed as an opening.

Objection 1: If what we mean by “argument” is the act of advancing reasonable position in contexts of doubt and difference, then a picture cannot, independent of language, be an argument.

This objection focuses on whether the visual itself can express an argument, and the precedent condition is how to define the concept of argument. Just as there is no consensus on the definition of logic, there is also no consensus on the definition of argument. According to O’Keefe (O’Keefe, 1982), the concept of argument has two definitions. The concept of argument₁ is described as involving “a linguistically explicable claim and one or more linguistically explicable reasons”; and the concept of argument₂ is described as “overt disagreement... between interactants.” It is obvious that the concept of argument₁ is relatively strict, and the concept of argument₂ is relatively broadened. About the scope of the concept “argument”, although some scholars, for example, Perelman and Olbrechts-Tyteca (1969) and Blair (1996), think it should be strict; some scholars, for example, Willard (1989) and Hesse (1992), think it should be broadened. They think that the concept “argument” should be clarified from the point of interactive and argumentative communication. Visual arguments are a kind of enthymeme. Here, this opinion hides an important precondition which all discourse is productive of belief. (Hesse, 1992)

Van Eemeren, Grootendorst and Kruiger (1984) also argue that argumentation is necessarily verbal, and argumentation without the use of language is impossible. Toulmin, Rieke and Janik (1979) pointed out that “reasoning could not exist in the absence of language. Both claims and all the considerations used to support them must be expressed by some kind of a linguistic symbol system.” I think there is a fact worthy of noting, when these opinions were given, at that time there is no big data, so those scholars cannot realize the power of visual reasoning in virtue of the big data technology.

A systematic objection as Fleming argued (1996),

Argument is reasoning towards a debatable conclusion. It is a human act conducted in two parts (claim and support) and with awareness of two sides (the claim allows for and even invites opposition). By this definition, something which cannot be broken down into claim and support, and whose claim is not reliably contestable, is not an argument, whatever else it may be and how else it may participate in argument.

I don't deny the correctness of this opinion, but I must note that here is the concept of "argument", not the concept of "sentence group." As Woods and Walton (1982) said, an argument is a set of propositions that can be divided into two categories: premises and conclusion. The word used here in the definition is also proposition, not sentence. As to Fleming argues that a picture can not satisfy the two part structure of argument because "it lacks the internal linear arrangement that characterizes verbal discourse." (Fleming, 1996) For Fleming[**iii**], the visual sometimes can serve as support for a linguistic claim, but it itself cannot, without language, be a claim.

For this objection, my question is that, can no any picture really be an argument? Can some pictures, with a certain inner connection and structure, be an argument? The answer from the experience is: VA exists. It is well known that propositions can be expressed in any number of ways, including by signs, signals, and visuals. Fleming didn't divide different visuals into valid and invalid. But the reality is that, according to the province of argument, visuals can be divided into valid and invalid as well as sentence group. So, we must distinguish the valid visual expressions from other visual expressions. How is a visual expression valid? A visual expression is valid, if and only if it can be judged as true or false. No doubt, for instance, this kind of visual expression exists in the province of legal evidences.

Objection 2: Visual expresses as a form of persuasion and rhetoric, not independently an argument.

According to Blair (1996), there is no doubt that images can be influential in affecting attitudes and beliefs. Still, from the fact that images influence beliefs and attitudes it does not follow that such images are arguments, for there is any number of other ways of influencing attitudes and beliefs besides arguing. The concept of visual argument is an extension of rhetoric's paradigm into a new domain. If the persuasive function lies at the heart of rhetoric, then any form of

persuasion, including visual persuasion, belongs within rhetoric's province.

I don't deny that visuals sometimes take its persuasive function, but I don't think the persuasive function is its one and only function. Just as the functions of the verbal, they include persuasion, argument, imperative, and etiquette. Argument is just one of the functions of the verbal. So, are the functions of the visual just one? No, it is not the truth. In the next place, to some degree, the difference between argument and persuasion is clear. The main difference between argument and persuasion is the purposes of them. The purpose of argument is to prove something is true, and the purpose of persuasion is to persuade the audience regardless of the truth value. According to the intention of certain agent, the visual can be used for both the truth value and persuasion. So, visual expresses not only as a form of persuasion and rhetoric, but also independently an argument. If we expect to find VA in such things as dramatic paintings and sculptures, magazine and other static advertisements, television commercials and political cartoons, (see Bair, 1996) we will be disappointed that there is hardly any qualified one, because most of these visual expresses indeed are not expressions with truth value.

Blair also talked about the importance of VA (1996), and he argues that if suggestiveness is the aim, this is a virtue; where clarity or precision are desiderata, it is a disadvantage. Blair's main point is that visual arguments are not distinct in essence from verbal arguments. The argument is always a proposition entity, merely expressed differently in the two cases. Therefore VA is not a particular exciting conceptual novelty; they do not constitute a radically different realm of argumentation. According to Bair (1996), the attempt of conceive of the possibility of non-propositional argument comes up empty, and the possibility of non-propositional persuasion is possible. Here, the precondition of Blair's claim is that the visual can not express propositions distinctly and precisely.

Here, once again, it deserved great notice that the verbal is a kind of means for arguments, then is the verbal is the only and all media instrument though relatively it perhaps the most explicit form? I agree to Birdsell & Groarke (1996), vague and ambiguous are not the distinction between the visual and the verbal, and the visual meaning can be in some cases neither arbitrary nor indetermination; and both the visual and the verbal can convey claims and arguments. Blair mainly cited the concept of argument¹ to analyze the concept of

visual argument. What it would be like if citing the concept of argument² to analyze the concept of visual argument?

3. *The philosophical ground of VA: sense and reference*

If VA is possible, why so many scholars argue it is impossible? At least, probably there is one reason is that a very important difference is confused or neglected: the language and what the language expresses. About this difference, the first system research is Gottlob Frege's works "*Über Sinn und Bedeutung*." (On sense and reference).

The fundamental thoughts of Frege's theory of meaning are three differences: the first difference is between language and what language expresses, the second one is between concept and object, and the third one is between sense and reference. According to Frege's context of scientific researches, natural language is often mixed with rhetoric, psychology and others, but what language expresses is the focus. Here our emphasis is the difference between sense and reference (see Figure 4).

Figure 4:

language		sentence	proper name	concept word
What language expresses?	sense	thought	a part of the thought	a part of the thought
	reference	truth-value	object	concept

Figure 4

What can VA learn from Frege's theory of meaning? At any rate, VA itself keeps to some fundamental epistemological principles as followed: the context principle, the objectivity principle.

3.1 *The context principle*

The context principle is the central concept of the theory of VA. According to Frege, the context principle means that "never ... ask for the meaning of a word in isolation, but only in the context of a proposition" (Frege [1884/1980] x). In the same way, never ask for the meaning of a picture in isolation, but only in the context of where it occurs. If no knowing about the context of where a picture occurs, you have no knowing about the meaning of that picture.

Though in many instances in our culture the conditions of interpretation of visual expression are indeterminate to a much greater degree than is the case with

verbal expression (see Blair, 1996), but many of them are determinate yet. It is undeniable that some of them are very complicated, even the meanings of some visual claims or arguments obviously depend on a complex set of relationships between a particular image/text and a given set of interpreters. "Context" can involve a wide range of cultural assumption, situational cues, time-sensitive information, and/or knowledge of a specific interlocutor. (Birdsell & Groarke, 1996) For instance, some ancient frescoes can be deciphered in line with their contexts and some relevant theories by the experts.

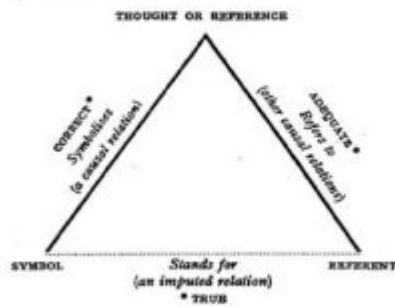
About the contents of the context, Birdsell & Groarke brought forth there are at least three kinds of contexts are important in the evaluation of visual arguments: immediate visual context, immediate verbal context, and visual culture[iv]. For the same visual in different contexts, it will perhaps have different meanings. For example, when Figure 2 is being seen by a person accustomed to Chinese culture, it will be associated with The Book of Changes and the law of changes. When it is being seen by a Korean person or certain persons accustomed to Korean culture, it will be easily associated with the national flag of Korean.

The contexts are the important hidden premises for a valid VA. They supply the basic premises for understanding it rationally, so they must be known by the audiences. The audiences who know about the contexts exclude the reasonable objections on the visual. Otherwise, the visual is obscure for the audiences, and as a result, VA fails to develop rationally. If necessary, providing keywords or sentences for a visual. That will be helpful for clearing up the misunderstandings in VA.

3.2 The objectivity principle

According to Frege, the difference between logic and psychology is distinct, but often confused by many mathematics and logicians. (see Frege [1884/1980]) He set up Begriffsschrift (a formalized language of pure thought modelled upon the language of arithmetic) to avoid the ambiguity of the natural language which involves a lot of psychological contents. Here, the objectivity principle refers to make a difference between language and what language expresses. If we present the triple relationship between language and what language expresses and things, it can be found from Ogden Triangle of Reference (Ogden and Richards, 1923, p.11) (See Figure 5).

Figure 5:



In Ogden Triangle of Reference, what symbol is? Symbol is sign, which can be the verbal or the non-verbal. That does not deny that the visual, which is a non-verbal form, can be also the symbol. It can be said that the verbal and non-verbal has the same status and influence in Ogden Triangle of Reference.

There are also both thoughts and ideas in VA. We must pay attention to that difference between them. Our goal here is to distinguish between logical contents and psychological contents in VA. Just as the sentences in the meaning of language, according to Frege, the language there refers to the declarative sentences, not any form of sentences. So, here we must define the scope and domain of VA to the field of the visual involving the truth value. For example, the visual is some kind of evidence, such as in the fields of legal argumentation or natural science. Of course, that straint does not deny other functions of VA, such as persuasion, explanation and rhetoric.

What is the difference between image and visual? Here, visual is objective, referring to everything relating to or using sight, and able to be seen. Image is subjective here, referring to a visual representation (of an object or scene or person or abstraction) produced on a surface in the mind. Some scholars, for example, Fox (1994b, p. 70, 77), think that the image is the "ultimate tool" of nuance, intimation, hint, and suggestion, so that imagemakers focus on values, attitudes, feelings, and effects, caring little about logic, proof, and argument. Perhaps some images make such effect, but many of them make other functions, such as argumentative effect. This opinion also neglected the logical difference between image and visual. Alike verbal sentences, visuals are also the expression of arguments, not the arguments themselves. The visual and what the visual expresses must be distinguished. This is a very important line.

Just as sentences have different types, drawings or pictures also have different

types. Here, a drawing or a picture refers to the visual which has an explicit record of facts or objects, and has clear topic understood by the general audiences. I argue that, like an assertive sentence in language, any of such drawings or pictures has its sense and reference. A visual itself has a meaning, which can be a proposition, as a datum. And, what the visual expresses is another meaning, as a claim. Common contexts are the hidden premises. Subsequently, an argument is formed, and the reference of which is relevancy, sufficiency and acceptability. For example, in Figure 1, the argument is as followed: I need donation, because I want to go to school, but I am very poor. Different audience has different responses to its reference, and their responses can be drawn into different pictures. Consequently, a VA is formed.

Postman (1985, pp. 72-73) said, "The photograph itself makes no arguable propositions, makes no extended and unambiguous commentary." Can the verbal itself make any arguable proposition? No. The verbal and the visual are two kinds of tools for any arguable proposition. Just as hand sign is also a kind of tool for the communication of the human being. Is hand sign the verbal or the visual? I think it is rather the visual.

In addition, Birdsell & Groarke (1996) brought forth the question of representation and resemblance. They are very important in a VA, because they may construct the argumentative aspects. This is also the third prerequisite for a satisfactory account of VA[v]. Note that the discussion of this question implies that the objectivity of VA.

4. Some further far-reaching questions surrounding the feasibility of VA

To take VA as a strand of argumentation theory, even provisional, will perhaps finally open a new lands for this world. As Birdsell & Groarke said (1996), "A decision to take the visual seriously has important implications for every strand of argumentation theory, for they all emphasize a verbal paradigm which sees arguments as collections of words." The fact is that, the paradigm is not unique, because arguments can be also as collections of visuals. About any type of informal logic theory, we will ask the possibility of its scheme, and its extensional application. VA is no exception.

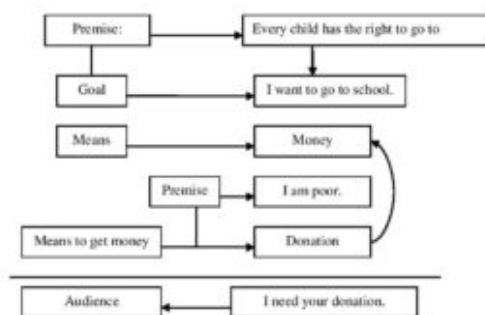


Figure 6

4.1 The schemes of VA

Are there any schemes to analyze a visual argument? Yes, the schemes of VA can be constructed, and the scheme will be helpful for analyzing, explaining, assessing, and reconstructing a visual argumentation.

For example, for the poster of Hope Project “Big Eyes Girl,” its scheme of the argument is as followed[vi].

In the above scheme, the major premise is from the context, which is a common sense: every child has right to go to school. The goal is from the visual itself, which can be told in the verbal or from what the picture expressed directly: I want to go to school. The means are also from the context: I need money to go to school because I have to buy pencils, exercises books, and so on. The minor premise also from what the picture expressed directly: I am poor and have no enough money to go to school. Finally, the conclusion is the result of the argument: I need your donation.

In addition, as to Figure 1, those three kinds of attitudes enumerated can be expressed by the pictures, and that is not only possible, but also feasible. For example, there are gesture language, silent movies, and children’s picture story books without any verbal.

Up to now, we can construct a structure for VA, which should include three factors: the context, the interpersonal argument, and the reasonability. This structure for VA can be expressed as $\langle C, I, R \rangle$. Any VA is a reasonability of an interpersonal argument in some certain context.

4.2 The relation of VA to AI

We are conditioned to reasoning and inference by virtue of the verbal, and don’t realize the possibility of the visual. In essence, VA is a new epistemology, which can make reasoning by the visual, not by the verbal and the voice. Now that VA is

possible, can we inference in virtue of the consistency, and the coherence of the visual?

Perhaps one day just like what we saw in the American TV serial named "Person of Interest," we can apply masterly the scheme of visual argumentation into AI, and consequently make the qualitative progress in the field of AI.

In the TV serial "Person of Interest," A computer genius built the machine, which can identify automatically who is criminal suspect and who is not. The machine can reason validly only by the visual reasoning. Of course, there should consist of the process of analyzing, contrasting and assessing the visuals in the machine. Everyone is being watched by the cameras all around, and everyone has the unique social security number. A social security number will be given by the machine if the corresponding person has the performance disobey the attributes, such as the consistency and the coherence, of visual reasoning. For instance, in certain set of the TV serial, a female doctor works as a doctor in a hospital and drinks all the nights in a bar for several days on end. This is abnormal for anyone because a person needs fixed sleep unless some wrong with him/her. So the number of this female doctor is given by the machine, and the story of the play proofs the correctness of the machine.

An objection may be brought forth, that the machine is man-made, which means its procedure coding is also man-made that cannot be totally the visual. But this does not deny that the reasoning is a different type from the verbal one. The important issue here perhaps is not whether VA can be running completely independent of the verbal, just as the argumentations with the verbal sometimes cannot be run well without any supports, but its running makes sense to the development of AI. Although this TV serial is fictional, the visual reasoning is rooted in reality, and for example, we can find their traces in some legal reasoning and argumentations. Meanwhile, the question of dynamic visual is being solved by the rapid development of the dynamic cognitive science. So, VA could have important relations to AI.

Of course, the ethics of visual argumentation will be on the agenda. Should we hand over our analyzing abilities and decision-making power to the computer? This is another matter, and the precondition is that VA has soundness, adequacy and completeness.

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NOTES

- i.** In this paper, I don't deliberately distinguish the difference between visual argument and visual argumentation, because in general the visual can express an argumentation if it can express an argument.
- ii.** See the second part, which clarifies the difference between idea and thought.
- iii.** Fleming provided a long bibliography for the rejection of the possibility of VA
- iv.** Birdsell & Groarke has given an explicit explanation for these concepts. I don't think they are sufficient contents for the context of a visual argument, for example, sometimes the indirect cues deserve much more attention, but I agree those three aspects are the fundamental contents.
- v.** According to Birdsell & Groarke, the other two prerequisites for a satisfactory account of VA are: we must accept the possibility of visual meaning, and we must make more of an effort to consider images in context.
- vi.** I wish to thank Douglas Walton for the original version of this scheme. Responsibility for the scheme and the views expressed here are, of course, mine alone

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ISSA Proceedings 2014 ~ Persuasion, Visual Rhetoric And Visual Argumentation

Abstract: It is often said that images are excellent persuasive means. However, if images are persuasive, can they also be argumentative? After discussing authors who have tried to fill the gap between rhetoric and argumentation (Perelman and Olbrechts-Tyteca, Reboul, Bonhomme), I will argue that the same figures or tropes can have both a persuasive and an argumentative function.

Keywords: metonymy, persuasion, visual argumentation, visual rhetoric.

1. Introduction

The relationship between visual rhetoric and visual argumentation is a topic to

which several essays have been dedicated. Some scholars deal with it in a general way (Blair, 2004; Kjeldsen 2012). Others focus on figures or tropes in particular (for antithesis, van Belle, 2009). Indeed, it has becoming a sub-field in the domain of visual argumentation. That said, the way in which visual rhetoric and visual argumentation have been related is not completely satisfactory. I will try to show that most attempts to link rhetoric and argumentation are based on the assumption that figures of rhetoric are above all persuasive. This assumption has a dramatic consequence upon visual argumentation, specifically because one argument against visual argumentation is that images are merely persuasive. As a result, considering visual rhetoric as persuasive would not reinforce visual argumentation, but rather critiques against it. Furthermore, another critique must be taken into account: in the frequent case of mixed media, i.e. when an argument is displayed in both words and images (such as in ads or commercials), the text alone is supposed to be argumentative, while the image would be merely persuasive (Adam & Bonhomme, 2005, p. 194 & 217).

So, in the first part of this paper, I will examine some of the principal ways figures of rhetoric and argumentation have been related in order to determine the extent to which figures have been considered as arguments. Then, in the second part, I will argue that some figures of rhetoric can be persuasive and argumentative at the same time.

Simply stated, I am interested in the argumentativity of figures. In saying this, I am using a French concept (*argumentativité*) that was coined by Ducrot and is used in the French theory of argumentation in order to refer to figures (Bonhomme, 2009; Plantin, 2009). This concept essentially suggests that an utterance can have an argumentative value instead of being limited to providing merely informational value (Anscombe et Ducrot, 1986, p. 91). Such an argumentative value comes from the fact that we can find, in an enunciate, elements that allow for a given conclusion by way of a commonplace, which Ducrot calls a *topos* (Ducrot, 1992). However, this concept is used in a slightly different way when applied to figures: in this case, it refers to their argumentative value, which can be considered as persuasive or argumentative, in this case when figures provide reasons to support a claim. Note that in what follows, I use the adjective “argumentative” with this restrictive meaning, unlike those who use it in a broader way, i.e. including all mean of influencing the addressee.[i]

Yet, why is the issue of the argumentativity of figures so important? Simply put, if

figures are considered to mainly have a persuasive role, it is hardly possible to see them as arguments, at least for those who believe argumentation and persuasion are mutually exclusive (Plantin 2012; Doury 2012; Micheli 2012).

It is generally accepted that persuasion is an important feature of images (Scott & Batra, 2003). It seems even that the syntagm “visual persuasion” is almost pleonastic since the supposed “essence” of image is closely related to persuasion (Hill, 2004). The problem, however, is that this understanding of images as persuasive does not have a positive connotation, as it is very often linked to propaganda. Propaganda and persuasion are indeed often seen as techniques for manipulating (Jowell & O’Donnel, 1992 ; Pratkanis & Aronson, 2001; Spangenburg & Moser, 2002), in particular regarding political posters (Seidman 2008) as well as advertising (Messaris 1997). This shows that we must be very careful when dealing with issues of visual persuasion. As we will see, this is all the more the case because figures of rhetoric are usually considered as persuasive, at least in French scholarship.

2. Figures of rhetoric and arguments

2.1 Perelman and Olbrechts-Tyteca

Perelman and Olbrechts-Tyteca are amongst the first to have drawn our attention to the relationship between figures of rhetoric and argumentation. These scholars were indeed interested in “showing why and how the use of certain figures of rhetoric can be explained by the need for argumentation” (Perelman & Olbrechts-Tyteca, 1970, p. 227). At its core, their theory aims to call into question the old understanding of figures of rhetoric as pure ornament, i.e. without any other function than “embellishment”. This would explain their need to distinguish between times when a figure is purely ornamental, and those when it may play a part in an argumentative process. For this reason, they consider “a figure to be *argumentative* if it brings about a change of perspective, and its use seems normal in relation to its new situation. If, on the other hand, the speech does not bring about the adherence of the hearer [...], the figure will be considered an embellishment, a figure of style” (Perelman & Olbrechts-Tyteca, 1970, p. 229; authors’ emphasis).

To be sure, the idea of considering figures from an argumentative standpoint was an important step forward for the field. However, it is insufficient to say that a figure is argumentative simply if it is accepted. Insofar as Perelman and Olbrechts-Tyteca consider that “the same figure, recognizable from its structure,

doesn't necessarily produce the same argumentative effect" (Perelman & Olbrechts-Tyteca, 1970, p. 232), they proposed their own classification of figures, aimed at emphasizing how figures can help argumentation. They organized figures into three categories: choice, presence, and communion. Indeed, this classification has the purpose of showing that "the effect, or one of the effects, certain figures have in the presentation of data is to impose or suggest a choice, to increase the impression of presence, or to bring about communion with the audience" (Perelman & Olbrechts-Tyteca, 1970, p. 232-233).

From this point of view, figures are considered as argumentative if they increase the adherence of the audience, which is a consequence of the concept of argumentation developed by Perelman and Olbrechts-Tyteca, i.e. a concept aimed toward influencing a given audience (Plantin, 1990, p. 16).

2.1.1 *Hypotyposis*

Interestingly, the first example of a figure they give is hypotyposis. This figure has a lot to do with images. According to Fontanier, for instance, "Hypotyposis paints things in a such a lively and dynamic way that it puts them, so to say, in front of our eyes and turns a narrative or a description into an image, a painting, a tableau vivant" (Fontanier, 1968, p. 390). They comment on this figure by writing: "It is therefore a way of describing events that make them present to our conscience. Could we negate the eminent part it plays as a factor of persuasion?" (Perelman & Olbrechts-Tyteca, 1970, p. 226). And they added: "If we neglect this argumentative role played by figures, their study will quickly be a vain hobby".

We can see in this quotation that hypotyposis is considered as a factor of persuasion. In turn, persuasion is assimilated to the argumentative role played by figures. The aim of the chapter on the relationship between figures of rhetoric and argumentation is indeed "to resituate argumentation figures in their proper place concerning the phenomenon of persuasion" (Perelman & Olbrechts-Tyteca, 1970, p. 231). Such a conception is not surprising, given that Perelman aims to reconcile rhetoric and argumentation. But it has, however, important consequences. From my point of view, playing a persuasive role is not enough to warrant seeing a figure as argumentative. If hypotyposis is eminently visual, we need to be sure that, beyond its effectiveness, it is also argumentative.

Yet within Perelman and Olbrechts-Tyteca's own classification of figures, hypotyposis belongs to the category of figures of presence. Besides hypotyposis, other figures belong to the same category: *ekphrasis* and *energeia*, among others,

since they have the same purpose: namely, to make the object of the discourse present (Perelman & Olbrechts-Tyteca, 1970, p. 235). However, once again, if such a figure is highly persuasive and contributes to the effectiveness of the discourse, is it also argumentative? I am not sure it is.

As we know, presence is very often visual. A well-known example of *energeia* – that Perelman and Olbrechts-Tyteca use when dealing with “presence” – is that of Caesar’s bloody tunic. This is a classic example that illustrates the use of concrete objects to move the audience (Perelman & Olbrechts-Tyteca, 1970, p. 157). Once more, I wonder whether such a very persuasive device can be considered as argumentative, since it is explicitly intended to move the audience through an appeal to pity. Aristotle described *energeia* as vividness, liveliness, “bringing-before-the-eyes”, (Rhetoric 1411b 24), but also limited its use and that of similar figures in so far as “it is not right to pervert the judge by moving him to anger or envy or pity” (Aristotle, *Rhetoric* 1354a 24-26). Unlike Cicero, Quintilian also wished to limit its use in courts (Quintilian, *Institutio Oratoria*, VI, 2, 1).

2.1.2 Phryne

A famous example of a similar rhetoric device is that of Phryne, a Greek courtesan known for her beauty. It has been said that Praxiteles used her as a model for his famous *Aphrodite of Knide*. She is also known for the legendary trial in which she was probably charged with impiety. According to some of the sources, such as Quintilian (*Institutio Oratoria*, II, 15, 9), the trial had a surprising turn of events. Just when it seemed that the verdict would be condemnation, her lawyer, Hypereides, (who was also, by the way, one of her lovers), removed Phryne’s robe and bore her breasts before the judges. Awe-struck by her beauty, and undoubtedly impressed with a sense of pity, they acquitted her.

The anecdote soon became a topos used to illustrate the persuasive power of rhetoric in Greek and Latin rhetoric treatises (Vouilloux, 1995, p. 102 & 109). It also illustrates quite well an appeal to pity based on sight (Lévy & Pernot, 1997, p. 6). For this reason, it is known to have inspired painters, like Baudouin and Gérôme (fig. 1).



Fig. 1. Gérôme, *Phryné devant l'Aéropage*, 1861.

Fig. 1. Gérôme, *Phryné devant l'Aéropage*, 1861.

Not surprisingly, Gérôme's painting has been used as an illustration in books on rhetoric and persuasion (fig. 2 & 3).

This shows again that we must be very careful when dealing with visual rhetoric and its relationship to argumentation. Hypotyposis and *energeia* belong, as we said, to figures of presence according to Perelman and Olbrechts-Tyteca's classification. However, increasing the feeling of presence (Perelman & Olbrechts-Tyteca, 1970, p. 236) is not necessarily an argumentative tool. To round up the story about Phryné, it's worth noting that after her acquittal, Athens published an official decree forbidding the use of the "appeal to pity" figure, in particular by exposing an accused individual to the judges (Lévy & Pernot, 1997, p. 6).



Fig. 2. Gérôme's painting illustrating a book

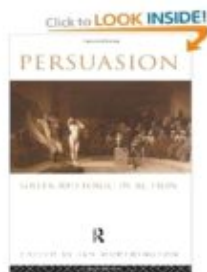


Fig. 3. Gérôme's painting illustrating a book

Fig. 2. Gérôme's painting illustrating a book

Fig. 3. Gérôme's painting

illustrating a book

Once again, why is presence so effective? It must be said that the word “presence” is rather deceiving in this usage. For Perelman, it is important because it makes something more present and “enhance[s] the value of some of the elements of which one has actually been made conscious” (Perelman & Olbrechts-Tyteca, 1970, p. 235). This is true. However, why is visual presence so effective? One way of understanding this effect is that presence is evident, or even self-evident. It should be noted that the effect of presence can also be rendered by another rhetorical tool, *enargeia*, sometimes confused with *energeia*^[ii]. Interestingly, when Cicero translated *enargeia* from Greek, he decided to invent a new word, instead of using adjectives available in Latin like *clarus* or *perspicuus*. As we know, the term created is “evidencia” (Lévy and Pernot, 1997, p. 10), based on *videre*, to see. Ironically, Perelman and Olbrechts-Tyteca – who have renewed the field of argumentation by explicitly rejecting the Cartesian concept of “*évidence*” (Perelman & Olbrechts-Tyteca, 1970, p. 4) – take for granted the argumentative value of presence as *enargeia* or *evidencia*!

The same holds true for another category of figures that, according to Perelman and Olbrechts-Tyteca, plays an argumentative role: that of communion. Its purpose is to create or confirm communion with the audience. Again, this is a very persuasive means. Also, from these examples, it should be clear that, for Perelman, the argumentativity of figures corresponds to their persuasiveness. Furthermore, Charles Hill, in his essay on the psychology of rhetorical images, shows that “vividness is almost a direct synonym of visualization”, and that “vividness enhances persuasiveness”, so that “vividness, emotional response and persuasion have all been shown to correlate to each other” (Hill, 2004, p. 32). So, even if presence is one of the four major rhetorical qualities of images – and is therefore crucial for visual argumentation (Kjeldsen, 2012, p. 240) – one can still wonder whether it is argumentative or persuasive. The problem, here, arises from Perelman’s understanding of argument as aiming to provoke or increase the adherence of the audience. Yet such an understanding doesn’t make it easy to distinguish between argumentative means (i.e. giving reasons to support a point of view) and non-argumentative means. Indeed, not all means used to influence an audience can be considered as argumentative. For this reason, it seems to me that it is not enough for visual argumentation to rely on *The New Rhetoric* to found the argumentativity of figures.

2.2 Reboul and Bonhomme

The same position has been adopted by some of Perelman and Olbrechts-Tyteca's followers. As is often the case, followers have a tendency to exaggerate when they adopt a systematic idea, i.e. in this case, considering that all the figures can be understood as argumentative. For example, in his book *Introduction à la rhétorique*, Olivier Reboul dedicates a chapter to the argumentative role that the figures of rhetoric may play. When Reboul writes about the "argumentative strength" of a figure, he is above all referring to its persuasive force. For him, a figure is rhetorical only "to the extent that it contributes to persuading" (Reboul 1991, p. 121). Hence the fact that his chapter includes figures – like rhythm – that are based on the sound of the words. This is not surprising, given his objective. As he puts it, "the rhythm produces a feeling of obviousness able to satisfy the mind, but also to enroll it" (Reboul 1991, p. 124). Indeed, how would it be possible to claim that *all* figures can be argumentative? Only from a broadened understanding of argumentation associated to persuasion, but also to pleasure. According to Reboul, Perelman's theory on the relationship between figures and argumentation "is too intellectualist, too oblivious of the figure pleasure, a pleasure deriving either from emotion or from comic, but always from pathos" (Reboul, 1991, p. 122).

Another interesting case in point is found in Marc Bonhomme. At the end of his book *Les figures clés du discours*, a few pages are dedicated to "argumentation through figures", in which he posits that besides their aesthetic function, figures also have "a practical end oriented toward the productivity of utterances. In this case, figures are seen as argumentation tools, influencing the opinions of their addressees and stimulating their adherence to the discourse that has been produced. More precisely, they work like persuasive speech acts playing with reasoning (to persuade), but above all on the affects (to hit)" (Bonhomme 1998, p. 88). Such an understanding is again very close to that of Perelman.

This same author developed this issue in a paper focused on the argumentativity of figures. In the introduction, he explains that, for him, there are three ways of understanding the relationship between rhetoric and argumentation. The first one is *convergence*: an argumentative discourse is considered to be rhetorical if its aim is to persuade. The second is *differentiation*: from this point of view, a discourse can be seen as rhetorical without being argumentative. And the third one is *inclusion*: in this case, argumentativity is only one amongst the different

dimensions of a rhetoric discourse. As a rhetorician, Bonhomme adopts this third option. This explains why he distinguishes five functions in a rhetoric discourse: aesthetic, phatic, pathemic, cognitive, and finally argumentative. According to the definition he gives, a rhetoric discourse plays “an argumentative function when, through different factors [...] the figures contribute to persuasion, acting on the addressee’s capacity to change their behavior. When it succeeds, such persuasion reinforces their beliefs and their convictions” (Bonhomme 2009, § 20).

Fig. 4 *The Island vineyard*, advertisement, France Soir Magazine, 1984



Fig. 4 The Island vineyard,
advertisement, France Soir
Magazine, 1984

According to this understanding, argumentation is a province of rhetoric, and rhetoric is (again) reduced to persuasion. This, in turn, has consequences on the way Bonhomme conceives of the argumentativity of visual figures. For example, for him, metonymy works as a transfer from agent to product, matter to product, product to place, and so on. He explains: «These isotopic transfers make it possible for advertising to manipulate the universe of the products so as to make them desirable for the public and trigger the act of buying» (Bonhomme 2009, § 46). An example given by Bonhomme in another paper (Bonhomme, 2008, p. 221) is an ad for a Corsican wine, *The Island vineyard* (fig. 4).

It relies upon the fact that the grapevine is shaped like the island of Corsica (fig. 5).

Hence Bonhomme’s analysis of the metonymy as a transfer from product to place. Here, it seems that this visual metonymy has a purely persuasive function, as it helps the consumer, at the moment of purchase



Fig. 4 The Island
vineyard,
advertisement,
France Soir
Magazine, 1984

choice, to associate wine and Corsica. Even though it is important to show that some figures play an important persuasive role in images, visual rhetoric cannot be confused, however, with visual argumentation if we consider the latter as providing reasons to support a claim. (Fig. 5 Map of Corsica)

2.2.1 *Metonymy*

In fact, Bonhomme's conception of the argumentativity of figures depends on his theoretical presuppositions, namely the rhetorical approach he applies to figures. But, besides this understanding of the rhetorical function of metonymy as persuasive, others interpretations are possible. For instance, Christian Plantin suggests that the mechanism that explains how metonymies work is like the mechanism that makes it possible to derive a conclusion from an argument. "In the metonymy of effect, the designation of the effect is replaced by that of the cause associated to it. In argumentation through consequences, the value judgment given to a consequence is transferred to its cause. The laws governing this kind of substitution of signifiers in a trope are not different from those that conclude to the acceptability of a cause from that of its effect (argument by consequences). We could therefore speak of a metonymic argumentation" (Plantin 2009, § 22). For sure, there are many images corresponding to this kind of metonymy of effects and causes. Let me examine one (Fig. 6).

I previously focused on this ad precisely because it recycles a series of paintings by Magritte (*La Belle Captive*) (Roque, 1983, p. 111-113). Here, I will analyze its argumentativity. So I'll first describe the contents and context of the ad. It is taken from an ad campaign used by a French savings that focuses on housing. The text in bold just below the house reads: "The Crédit Agricole savings housing plan is an investment to live at home". And below the road sign that points to the bank, there reads an inscription: "common sense close to your home," which served as a slogan as well as an identification code for the bank in the eighties, across multiple ad campaigns.



Fig. 6. Advertisement for Crédit Agricole, Havas Conseil, 1976

Fig. 6. Advertisement for Crédit Agricole, Havas Conseil, 1976

This ad represents a case of a mixed media argument. According to a classification I proposed, it is what I call a joint argument, i.e. an argument produced by using visual as well as verbal elements (Roque, 2012, p. 283). It is also important to note that in a joint argument, both parts (verbal and visual) contribute to the argument. In this case, the text alone doesn't advance all the reasons to open a savings account: the body text, printed in small letters, is a description of the savings program. The text below the picture of a house is also informative, explaining the purpose of the savings plan (to live in one's own house). And finally, the text "Common sense close to your home" could serve as a conclusion to the argument (in addition to its role of reinforcing the bank's brand), but not as the argument itself.

The image is based on a famous painting by Magritte that shows a canvas painting of a house that blends into the landscape in its background. The image relies upon a visual pun that pivots on the word "plan", namely a savings plan and

a house plan on paper. Rhetorically, it corresponds to a visual syllepsis, since the same graphic element can be perceived as being simultaneously part of two distinct sets (Noguez, 1974, p. 120). Now the house plan blends into the land where it is to be built. We could see it a metonymy of effect or otherwise of product and place. I have also suggested elsewhere (Roque, 2005, p. 275-276) that it could be understood as a particular case of metonymy, i.e. a metalepsis, since there is an inversion of cause (a savings plan) and consequence (building a house): in the image, the house is presented as having already been built.

The Magrittean image is quite effective, since it shows that the plan to have one's own house is not just a dream but can easily become real thanks to Crédit Agricole's savings plan. It is very persuasive, too: the house has a strong presence and helps suggest that it is easy to turn a dream into a house. If we consider the image as persuasive, it would be interesting to ponder whether it is also argumentative. But first of all, what is the visual argument here? We could say that it is something along the lines of: a saving account is a good investment because soon you'll be the owner of your own home. Therefore a savings account is a common sense investment. The reference to the "common sense" is important as a way of suggesting that opening a savings plan is a rational and good decision. Furthermore, if one accepts that the visual might be dialogic (Roque, 2008), I would like to suggest that this is the case here: the visual part of the argument also seems to be a proleptic[iii] response to a possible objection about time: how many years would I have to save money before having my own house? Yet the image collapses the distance between cause and effect, project and realization. Therefore it helps to think that a savings plan is a good investment.

So how are we to analyze the visual rhetoric used in such an ad? As persuasive or as argumentative? The response is: both. The syllepsis can be considered as persuasive, as it suggests that the house simultaneously belongs to representation (painted on a canvas) and reality (built in the estate). As for the metonymy, it can be seen as persuasive, like Bonhomme does, if we understand the metonymy as a transfer through contiguity, between the product (a house to be built thanks to a savings plan) and the place (the private housing estate where the house has to be/is built). Conversely, we can see it as argumentative, like Plantin does, in so far as the acceptability of the consequence (to be landlord) is transferred to the cause (to buy a savings plan). Finally, the prolepsis, when it is used to anticipate a possible objection, is argumentative, too. The conclusion we can draw from it is

that the same figure, in this case a trope (metonymy), can be understood either as persuasive or as argumentative. Therefore, these points of view are not exclusive. The fact that some visual figures are persuasive doesn't prevent them from also being argumentative, at least in some cases. This first conclusion already has an important consequence: visual images cannot be easily rejected from the field of visual argumentation for being persuasive if we succeed in showing that they also work argumentatively.

3. Peersuasion and argumentation

In a previously published paper, I made the following argument: since a figure can be persuasive and argumentative at the same time, a distinction should be made between a strong and a weak notion of visual argumentation. I proposed to call a visual argumentation "strong" when an image is fully argumentative, i.e. when it gives reasons in order to support (or criticize) a point of view. Conversely, it should be qualified as "weak" when it is merely persuasive and influences the addressee (Roque 2011, p. 98-99). Such a suggestion doesn't seem satisfying any longer. Why? Because it supposes that it would be possible to clearly distinguish which images would be "purely" persuasive and which are "purely" argumentative. In practice, such a distinction is challenging to apply. It turns out that persuasive and argumentative elements are often closely combined. The reason for distinguishing between strong and weak visual argumentation was to fortify visual argumentation as a well-founded field because it excluded visual persuasion from it. However, such a view also presupposes that persuasion is not rational. But there are indeed cases of rational persuasion, sometimes even ones that use emotional means of arousal (O'Keefe, 2012).

So, instead of separating persuasive and argumentative aspects, it is more convenient to accept that they often work together. This is, nevertheless, a controversial issue. Some authors hold that persuasion and argumentation should be carefully separated. My opinion is that in some cases - and visual argumentation is certainly one of them - persuasion and argumentation intersect and are intertwined (Nettel & Roque, 2012). This understanding corresponds to that held by informal logicians, like Ralph Johnson and Tony Blair, who claim that argumentation is rational persuasion (Johnson 2000, p. 149-150; Blair, 2012). Blair's analysis of different types of advertising is a good case in point (Blair, 2012, p. 75-77). In some advertisements, there is a mix of rational and non-rational - or irrational - reasons given for preferring one brand over others. Yet, if

“the argument is the effective persuasive tool [...] persuasion occurs through the use of arguments” (Blair, 2012, p. 76) and we have a case of rational persuasion.

Now, once we stop considering persuasion and argumentation as mutually exclusive, it becomes essential, when analyzing images, to determine whether or not persuasion is accompanied by a set of rational reasons provided to support a claim. Indeed, adversaries of visual argumentation could claim that in such cases, even though it is true that there is persuasion as well as argumentation, the persuasive role would be that of images.

For this reason it is important to better understand the relationship between figures of rhetoric and argumentation. Two different kinds of relationship have been envisaged: either figures help better present arguments, or figures are arguments themselves (Reboul, 1986, p. 184; Bonhomme, 1998, p. 88; Tindale, 2004, p. 59). In the first case, the relationship between figure and argumentation is extrinsic. In the second, it is intrinsic. When the relationship is extrinsic, the figure cannot be considered properly “argumentative”; it remains exterior to the argument and is merely persuasive most of the time. In the second case, it must be recalled that when a figure itself is an argument, this doesn’t necessarily mean that it cannot also be persuasive. Yet, what happens for the general relationship between persuasion and argumentation holds true, too, for the figures.

As we already saw, a trope like metonymy can be simultaneously seen as persuasive and argumentative. So it turns out that it is hardly possible to separate persuasive and argumentative aspects of a given figure. Furthermore, the distinction between extrinsic and intrinsic relationship is itself relative. Indeed, at the end of his 1986 paper, Reboul considers that the two different cases, extrinsic and intrinsic “are almost always indistinguishable” (Reboul, 1986, p. 186). For this reason, he relinquished the distinction when reprinting his paper as a chapter of his book (Reboul, 1991).

4. *Conclusion*

1. By examining the relationship between figures of rhetoric and argumentation, it turns out that, for most authors, when a figure is used in discourse, its function is primarily persuasive. Consequently, we must be careful when transposing their idea to the field of visual argumentation, since images are generally considered as more persuasive than argumentative.
2. This is particularly true for what Perelman and Olbrechts-Tyteca call figures of “presence” (hypotyposis, *energeia*). The fact that they are effective and impress

the audience doesn't necessarily transform them into argumentative tools.

3. Some figures (like metonymy) appear to be considered as persuasive and also argumentative. Furthermore, it is hardly possible to separate figures that would be persuasive from figures that would be argumentative.

4. If we admit that persuasion and argumentation are very often combined, the fact that many images are persuasive doesn't prevent them from being simultaneously argumentative (at least in some cases). This point is quite important to counter the argument according to which images would be mainly persuasive. However, this raises the need to distinguish between these two complementary functions of images.

5. The concept of strategic maneuvering can be helpful here because it "refers to the continual efforts made in all moves that are carried out in argumentation discourse to keep the balance between reasonableness and effectiveness" (van Eemeren, 2010, p. 40). Similarly, I would like to suggest that something similar occurs in visual images. When there is a balance between reasonableness and effectiveness, visual images can be considered as successfully displaying a visual argument. But when effectiveness (i.e. persuasiveness - even though van Eemeren warns us that effectiveness and persuasiveness are not completely synonymous: van Eemeren, 2010, p. 39) gets the better of reasonableness, visual images are mainly persuasive.

Acknowledgements

I would like to thank Marc Bonhomme for giving me a reproduction of fig. 4.

NOTES

i. I will leave aside the complex issue of the relationship between verbal rhetoric and visual rhetoric, i.e. examining to what extent the verbal rhetoric terms can be transposed into visual rhetoric.

ii. Both deal with rhetoric and visuality, and their names are very similar. However, « *energeia*, » usually translated as « activity, » means « vividness, » while « *enargeia* » has the general meaning of visual clarity, but also pictorial vividness. As it has been noted, Aristotle uses the first one in his *Rhetoric*, not the second one (Zanker 1981, note 40 p. 307).

iii. On the prolepsis as persuasive and argumentative, see Nettel and Roque, 2012, p. 64-65.

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ISSA Proceedings 2014 ~ The Argumentative Relevance Of Rhetorical Strategies In Movie Trailers

Abstract: Movie trailers are hybrid (combining narrative and advertising) audiovisual discourse genres that exploit a carefully selected re-montage of moving and still images, sound, music, voice-over, intertitles, etc. to persuade potential spectators/consumers that a forthcoming movie is worth watching. I hypothesize that movie trailers reach their goal by advancing monomodal (e.g. only pictorial or only verbal) and multimodal arguments and by employing

monomodal and multimodal rhetorical schemas and tropes (e.g. metonymy and synecdoche).

Keywords: dispositio, elocutio, inventio, loci, movie trailers, metonymy, multimodal argumentation, multimodality, synecdoche.

1. Introduction

This is an exploratory study which looks at movie trailers as discourse genres from a rhetorical and argumentative point of view.

With this study, I wish to contribute to the research on visual/multimodal argumentation and the research on the relationship and isomorphism between rhetorical figures/tropes and argumentative *topoi* (or *loci*). On the one hand, the study on visual/multimodal argumentation has flourished since a special issue of *Argumentation and Advocacy* came out in 1996. This year marks a shift in the studies on argumentation: since then, scholars have become more and more aware of the fact that real argumentative discourses in real contexts do not convey arguments only verbally but exploit all the semiotic resources available to make their point and to persuade people. On the other hand, the study of the link between patterns of *elocutio* from *ornatus* (i.e. rhetorical figures and tropes) and patterns of *inventio* (i.e. argumentative loci) is not completely new. The author of the website *Silva Rhetoricae* puts into question the sharp division between tropes and *topoi*:

The difference between a figure and a topic of invention, then, may sometimes simply be a matter of degree, or it may be a matter of whether one views the strategy as one of expression of an idea (an issue of style) or the composition or discovery of an idea or argument (an issue of invention). The point is, we should recognize the close proximity of the figures and the topics of invention.

In order to understand the role of rhetorical figures/tropes, Fanhestock (1999, p. 23) suggests “shift[ing] the emphasis from what the figures are to what it is they do particularly well”, that is “epitomize lines of reasoning.” Also, Tindale (2004) says that figures are arguments if they engage the audience in a premise-conclusion process. More recently, Kjeldsen (2012) has investigated how tropes contribute to the inferential reconstruction of enthymemes in advertisements. He argues that pictorial rhetorical figures delimit the interpretation of the message of an advertisement and evoke the intended argument. I have tried to contribute to this line of research in Pollaroli and Rocci (forthcoming).

Movie trailers are an interesting discourse genre to be explored because of their

multimodal and hybrid nature. Unfortunately, they have hardly ever raised scientific interest, as Carmen Maier (2011) complains about. Movie trailers are multimodal discourse genres because they combine meaning manifested through different semiotic modes such as moving and still images, sound, music, written and spoken language. As Dornaletche Ruiz (2007) says, movie trailers are shows of other shows, they are audiovisual discourses anticipating and promoting other audiovisual discourses. Indeed, movie trailers are communicative practices that employ the same semiotic modes (and often the same media, especially when they are broadcast in cinemas) of the communicative practices they promote.

Movie trailers are hybrid because they combine the narrative nature of the movie they are constructed upon and the promotional nature of advertising; as Maier (2011, p. 141) says “trailers are designed to sell and tell a story.” The goal of movie trailers is to persuade potential consumers/spectators that a forthcoming movie is worth watching (Dusi, 2002; Kernan, 2004; Dornaletche Ruiz, 2007, 2009; Maier, 2009, 2011). For this, they can be considered as a type of advertising, especially as a type of TV commercials (Dornaletche Ruiz, 2007). The product is a movie, specifically it is a movie experience; in fact, one cannot properly ‘buy a movie’ as if it was a pair of shoes, but can go to the movies and watch it. In order to reach their advertising goal, movie trailers have to both give some information on the forthcoming movie to arouse the prospective consumer/spectator’s interest and leave out some other information to encourage the audience to go and watch the movie in the case they are interested in the story (or other features of the movie) and wish to know more about it. As Dornaletche Ruiz (2007, p. 102) says, the marketing strategy of movie trailers is similar to those types of marketing (known as merchandising) that tempt the audience by offering an anticipation of the product (e.g. pieces of a new brand of cheese at the supermarket, free trials on websites that teach languages, demo of videogames sold with magazines) in order to ‘whet the appetite’ of the consumer. Movie trailers are appetizers of coming attractions (Kernan, 2004). In this study I wish to explore the hypotheses that:

1. Movie trailers are argumentative activity types;
2. Movie trailers employ multimodal arguments to fulfil their promotional goal;
3. Movie trailers employ multimodal rhetorical patterns from *ornatus* (e.g. synecdoche, metonymy, hyperbole, ellipsis);
4. The rhetorical patterns employed are argumentatively relevant, that is, they make the audience infer the arguments advanced in support of the standpoint put

forward in the movie trailer.

This study does not present final results but only some preliminary results of a path of research that should be further developed.

2. Movie trailers are argumentative discourses

So far movie trailers have not been studied as argumentative discourses; yet, the persuasive purpose of film trailers is acknowledged among those few scholars that have written about them (Dusi, 2002; Kernan, 2004; Dornaletche Ruiz, 2007, 2009; Maier, 2009, 2011).

Following Rigotti and Rocci's (2006) model for communication contexts, movie trailers can be described as communicative activities which result from the application of the advertising interaction scheme – namely a culturally shared scheme of interaction which helps in achieving a goal – to the interaction field – namely the institutional reality defined by shared goals and commitments – of the market of movies. Broadly speaking, the goal of the people working in the market of movies is the positioning of a movie in the film market (Dornaletche Ruiz, 2007, p. 100) in order for it to perform well at the box office in theatres. The goal of movie production companies is achieved only when spectators go and watch the movie in theatres; their goal will not be satisfied if spectators limit themselves in receiving the information provided in the trailer. Movie trailers are argumentative as advertisements are. Arguing that movie trailers are argumentative discourses because they are a specific type of advertising may not be easily accepted, especially among scholars who do not believe that advertisements can argue (see Blair, 1996, 2004). However, other scholars provide good reasons for claiming that advertisements argue (Pateman, 1980; Slade, 2002, 2003; Atkin & Richardson, 2005; Ripley, 2008; Rocci, 2008, 2009; van den Hoven, 2012; Kjeldsen, 2012; Mazzali-Lurati & Pollaroli 2014; Rocci, Mazzali-Lurati & Pollaroli, 2013; Wierda & Visser, 2013; Pollaroli & Rocci, forthcoming). The following quotation from Atkin and Richardson (2005, p. 167) clearly summarizes the position of these scholars:

Advertising discourse [is] per se argumentative given that advertising offers evidence – often implicit, indirect or semiotic support in addition to (largely non-requisite) premises – in defence of a contested or contestable position.

Ripley (2008) shows that advertising can be seen as argumentative from the perspective of different argumentation theories. Advertising for products, for

instance, is, from a pragma-dialectical point of view, a single non-mixed difference of opinion (see van Eemeren, Grootendorst & Snoeck Henkemans, 2002; Wierda & Visser, 2013). Following this perspective, movie trailers can be seen as single non-mixed differences of opinion between a movie production company (the protagonist) and potential consumers/spectators (the antagonist). The standpoint often remains implicit, but it can be easily reconstructed from the context and verbalized as *Movie X is worth watching in the theatre* or *You should watch movie X in the theatre*. Moreover, it is often the case that the arguments are enthymematic and implicit, but the context and the recognizable overall purpose of the discourse make it possible to make them explicit and reconstruct the whole discourse as argumentative.

In order to fulfil their promotional goal, movie trailers advance arguments employing either the verbal, visual, or aural semiotic systems or a combination of them, that is they advance arguments multimodally. Although the scepticism about multimodal argumentation persists (Johnson, 2003; Blair, 1996, 2004; Jacobs, 2000), more and more scholars in argumentation theory claim that pictures, odours, sounds, moving images, etc. provide arguments in support of claims (Alcolea Banegas, 2009; Groarke, 2009; Kjeldsen, 2012; Dove, 2012; van den Hoven, 2012; Pollaroli & Rocci, forthcoming). For these scholars the argumentative role of discourse elements is independent from their manifestation in the verbal mode. The audience of multimodal argumentative discourses is able to recognize arguments manifested in other semiotic systems rather than the verbal one and to understand and correctly interpret the communicated message without translating it into words. Yet, analysts interested in the reconstruction of the claim(s) and argument(s) of multimodal argumentative discourses need to translate visual/aural/multimodal arguments into words; this may result in the loss of part of the original meaning. Seeing visual/aural/multimodal arguments as enthymemes may be a good starting point. Some scholars (Birdsell & Groarke, 1996, p. 6; Smith, 2007; Kjeldsen, 2007, 2012) claim that images can be enthymemes, that is rhetorical syllogisms that need the active participation of the audience to be completed with contextual-bound premises. The effectiveness of enthymemes relies on these contextual premises. Kjeldsen (2012, p. 241) sees images as “offer[ing] a rhetorical enthymematic process in which something is condensed or omitted, and, as a consequence, it is up to the spectator to provide the unspoken premises”.

3. *Inventio and disposition in movie trailers*

Movie trailers are composed of a carefully selected re-montage of dialogues, moving images, sounds, and music from the movie they promote and arrange them together with non-diegetic voice-over, shots and scenes created for the trailer only or original shots that were not included in the final editing of the movie, shots with information about the actors, the director, the production company, day of release, prizes that the movie has been awarded, empty black or white shots etc.

All this makes movie trailers something completely different from summaries of movies. The chronological structure of a movie is transformed into the mainly non-chronological structure of a trailer. Dornaletche Ruiz (2007, p. 105) says that trailers may be constituted of 'bracket syntagmas' (Metz, 1989; Bateman, 2007) of the story that is told in the coming movie. Bracket syntagmas are shots put together because they represent examples of a reality, a topic, without chronological order and temporal link.

Maier (2009, p. 162) points out that consumers/spectators "evaluate" the characters, the relationships, the events, the film company, the actors, the director presented in the movie trailer, and consequently the movie advertised, visually. In fact, Maier defines "evaluative devices as being those verbal, visual and aural resources that inherently or contextually signal a process of appraisal" (2009, p. 165); thus, her concept of 'evaluation' is similar to 'argumentation'. In my view, these are all diegetic and extra-diegetic visual (or multimodal) arguments. Examples of promotional evaluative devices in movie trailers are, for Maier (2009), the film company's logo which "not only reminds the viewer of the company's prestige, it may also be an indication of the quality or type of films created by the company" (p. 171) and the name of an actor, which has a similar effect to that of the film company's logo. Maier (2009, p. 172) also points out that "no single semiotic mode is supposed to carry the whole or only evaluative information of a shot or scene. Visual, verbal and aural evaluative devices are co-deployed to maintain or subvert each others' evaluative load both on the diegetic and non-diegetic levels." These evaluative devices may be seen as the recurrent patterns of *inventio* that are employed in movie trailers.

How do these elements hold together in movie trailers as discourses? As Carmen Maier (2009, p. 161) points out "the whole structure of these film trailers is motivated by their promotional purpose." This insightful remark can be better

explained adopting the pragma-rhetorical perspective on discourses that Congruity Theory has developed (Rigotti, 2005; Rocci, 2005; see the literature cited in Mazzali-Lurati & Pollaroli, 2014). Following Congruity Theory, we see monomodal/multimodal discourses as complex acts governed by a superordinate act that corresponds to what the addresser does to the addressee with the discourse; all discourse elements are subordinate acts that contribute to fulfil the goal of the text as a whole. The promotional goal of movie trailers determines the complex multimodal act of the text – which is similar to that of advertising for product – and the functions fulfilled by the multimodal sequences of the movie trailer are subordinate to the advertising one. Multimodal sequences in audiovisual discourses are clusters of shots combined together with sound, music and other elements that form a unit; in order to determine the boundaries of each sequence we must look at changes in music, sound, images, etc. The voiceover may help in marking the multimodal sequences. I agree with Carmen Maier pointing out that all stages – or multimodal sequences – fulfil a ‘promotional’ function “through different informative means” (p. 144). From the perspective of Congruity Theory, the promotional function corresponds to the complex superordinate act whereas the informative means correspond to the subordinate acts.

In other words, movie trailers are multimodal argumentative discourses that perform the complex act that, for the purpose of this paper, we can name ‘the movie trailer act’. All multimodal subordinate units concur in performing the high-level act. Maier (2009) identifies different stages that fulfil specific functions in movie trailers. We will see some of them through the analysis of an example in Section 5.

Movie trailer act

(Addresser, Addressee, T)

Presupposition

Addresser is a motion picture company that produced movie X;

Addressee is a potential consumer/spectator;

T is a movie trailer having a propositional content Y which shows the movie story and other information about the movie.

Movie X will be available at time t. Addresser reasonably believes that movie X will satisfy a desire of Addressee.

Pragmatic effect

By stating T, Addresser commits himself in offering movie X and expresses the desire that

Addressee benefits from movie X.

The complex act determines the inferential process that the audience is invited to perform in order to correctly understand and interpret each multimodal sequence of a movie trailer. The meaning in movie trailers is condensed (Wildfeuer, 2014; see also Kjeldsen, 2012 and the enthymematic nature of visual/multimodal argumentation mentioned in Section 1) and the way multimodal sequences are arranged may seem incoherent and chaotic because, for instance, information about the production company is followed with brief shots from the movie and this is interrupted by information about the actors, etc. Indeed, Wildfeuer (2014) notes that the inferential work required by viewers in order to interpret a trailer is different from the inferential work they operate to interpret a movie. This is consistent, from a Congruity Theory perspective, with the very different superordinate complex acts that movie trailers and movies perform, respectively a promotional goal and an entertainment goal.**[i]** However, a link between the inferential work performed when watching a movie trailer and the process of interpretation of the promoted movie remains. Indeed, a movie trailers invites the audience to operate anticipatory hypotheses (Moeschler & Reboul, 2009) on the cinematic discourse that we are invited to watch in theatres.

4. Elocutio in movie trailers

Movie trailers employ patterns from *elocutio*, such as synecdoche, metonymies, hyperbole**[ii]**, ellipsis (here I will focus only on metonymy and synecdoche for reasons of space).

In the last few decades, cognitive linguists have shown that traditional rhetorical figures and tropes are deep and pervasive structures of our thoughts through which people conceptualize and understand the world (Lakoff and Johnson, 2003[1980]; Barcelona, 2003; Ortony, 1993; Panther & Radden, 1999). Lakoff and Johnson (2003 [1980], p. 5), for instance, claim that “the essence of metaphor is understanding and experiencing one kind of thing in terms of another”. Stemming from this approach to metaphor, Forceville (1996) shows that the manifestation of a metaphor is not necessarily verbal but it can also be pictorial and multimodal: metaphors can be manifested by images and by a combination of different semiotic modes such as words and images, sound, moving images, etc. (see

contributions in Forceville & Urios-Aparisi, 2009).

Metonymy is a substitution of one concept with another which plays a contiguous semantic role within the same frame (Bohnomme, 2005). The focus shifts from the proper concept and role to the substituted one. Metonymic concepts “usually involve[s] direct physical or causal associations” which are systematic and “grounded in our experience”. Indeed, it is possible to identify “certain general metonymic concepts in term of which we organize our thoughts and actions”; for example, the relations “producer for product”, “object used for user”, “controller for controlled”, “institution for people responsible”, “place for the institution” and “place for the event” (Lakoff & Johnson, 2003 [1980], p. 39). Consider, for example, the sentence *She’s wearing an Armani* in which the producer substitutes the product, or a TV commercial of a brand of water where the mountains from which the water springs are shown (metonymy of the origin-for-product type). Works on pictorial and multimodal metonymy (Forceville, 2009; Bonhomme & Lugrin, 2008; Urios-Aparisi, 2009; Yu, 2009; Villacañas & White, 2013; see also Forceville 1996) identify instances of metonymic relationships represented by visual elements in static or dynamic images in advertising texts.

Since Antiquity synecdoche has been recognized as a rhetorical figure independent from metonymy. Yet, already Quintilian noticed the little difference that exists between the two rhetorical tropes and that “it is but a short step between synecdoche and metonymy” (*Institutio Oratoria* VIII.VI.23). Burkhardt (2010, p. 247) laments that “a clear principle for the distinction between metonymy and synecdoche, which is more than 2,000 years old, is still missing”. Nerlich (2010) agrees and points out that it is a hard task to give a definite and agreed upon definition of synecdoche as well as to find its position in the realm of rhetorical figures. The distinction has been made even harder as synecdoche has been sometimes considered as a subtype of metonymy (Lakoff and Johnson, 2003 [1980]). For space reason, I cannot report all the characterizations and classifications that have been proposed on synecdoche, but I can plausibly claim that synecdoche is a structure of thought that substitutes the part for the whole (*There where only ten heads today in the classroom*) or the genus for the species (*He has a temperature*), the singular for the plural (*The Roman won the battle*), and vice versa.

Some research has been conducted on the manifestation of rhetorical patterns in audiovisuals, especially in movies and in TV commercials (Whittock, 1990;

Forceville, 2007, 2009; Urios-Aparisi, 2009; Yu, 2009). Whittock (1990) lists nine ‘cinematic metaphors’ that include metonymy, synecdoche, explicit comparison and distortion. Forceville (2007) claims that metaphor can be manifested multimodally in TV commercials and metonymy (Forceville, 2009) is employed in movies when, for example, the spectator hears a sound that is connected with something that is not displayed on the screen (e.g. the creaking floorboards that stand for an unwelcome visitor) or the spectator watches a close-up of a part of the body (e.g. moving mouth) that stands for an action (e.g. talking). It follows that movie trailers as well may manifest rhetorical patterns such as synecdoche – parts of the movie stand for the whole movie – and metonymy – the director and the film production industry stand for the movie.

I hypothesize that these rhetorical patterns epitomize lines of reasoning, saying it with Fanhestock (1999), and make the viewer infer the intended argument, saying it with Kjeldsen (2012). For example a metonymy condenses an argument based on a locus from final cause or efficient cause and a synecdoche condenses an argument based on a locus from parts to whole.

5. A case study

In this section I will analyze a movie trailer that won the 15th Golden Trailer Awards for the ‘best in show’ trailer. It promotes the movie *Gravity* (2013) by Alfonso Cuarón.

00:01 – 00:04		Warner Bros Pictures logo	MS1 Promotional - Identification
00:05 – 01:36		Diegetic sequence	MS2 Promotional - Orientation and Complication
01:37 – 01:39		Title of the movie	MS3 Promotional - Identification/Specification
01:40 – 01:42		Main actors	MS4 Promotional - Identification
01:43 – 01:45		Director	MS5 Promotional - Identification
01:46 – 01:49		Date of release in theatres	MS6 Promotional - Information/Specification
01:50 – 01:51		other details	MS7 Promotional - Identification

Table 1

This movie trailer is a one-minute 51 seconds audiovisual discourse composed of 7 multimodal sequences. A preliminary step for the analysis of audiovisuals is the transcription of the discourse into the written modes. The transcription is useful because it gives a synthetic representation of the linearity and strata of the audiovisual text (Casetti & Di Chio, 2009). The transcription table proposed here (table 1) is a simplified version of the transcription table presented in Rocci, Mazzali-Lurati & Pollaroli (2013) constructed on the

basis of Baldry & Thibault (2006), Bateman (2007), and Casetti & Di Chio (2009).

The movie trailer for *Gravity* is composed of multimodal sequences that fulfil

specific functions in the trailer (Maier, 2011) and concur to perform the overall promotional act of the discourse. Combining Maier's functions and Congruity Theory, we can identify the act performed by each multimodal sequence.

The multimodal sequence 1, which lasts 4 seconds, shows the Warner Bros Pictures logo and accomplish what Maier (2011) calls the Promotional Identification function because gives non-diegetic information about the film company. The multimodal sequence 2 is diegetic and is composed of only one shot, that is one uninterrupted image, without editing cuts but with many frames. It lasts 1 minute 31 seconds and it shows an entire scene from the movie advertised. This multimodal sequence functions both as Orientation and as a Complication (always following Maier's stages) because it introduces the characters and the situation and also what seems to be the disruptive event. The audience watches three astronauts working outside of the space shuttle Explorer. The mission control in Houston warns the team about debris in the space which do not last much in arriving. One of the astronauts is hit and seems dead, the astronaut Stone cannot unbuckle the belt that keeps her tied to the shuttle arm; while the astronaut Kowalski is trying to help Dr. Stone, the shuttle arm is broken by some debris and she starts tumbling through space. The spectator watching this sequence operates many inferences and anticipatory hypotheses (Moeschler & Reboul, 2009) about the plot and the chronological order of the events (is this the beginning of the movie or the end? What is the reason for the accident and the debris being around the Earth?) and the characters (Are those the only characters? How is the relationship between them? What happens to Dr. Stone after she is thrown away from the space shuttle?). The following multimodal sequences give extra-diegetic information.

Multimodal sequence 3 identifies the title of the movie thus specifying one of the elements presupposed in the 'movie trailer act' we have seen in Section 2. Multimodal sequence 4 identifies the famous actors playing the two characters the audience has just seen in multimodal sequence 2. The multimodal sequence 5 identifies the director. The multimodal sequence 6 gives information of the date of release in theatres and specifies a detail of the 'movie trailer act'. Multimodal sequences 1 to 6 are composed of one shot each. Two shots compose MS7 in which some information is repeated (director, film company, actors) and some information is added about the music and the production. The overall act performed in this movie trailer is:

*Movie trailer act*Gravity
(Addresser, Addressee, T)

Presupposition:

Warner Bros Pictures is a motion picture company that produced *Gravity*; Addressee is a potential consumer/spectator; T is a movie trailer having a propositional content Y which shows the movie story and other information about the movie. *Gravity* will be available on 10.04.2013. Warner Bros Pictures reasonably believes that *Gravity* will satisfy a desire of Addressee.

Pragmatic effect:

By stating T, Warner Bros Pictures commits himself in offering *Gravity* and expresses the desire that Addressee benefits from *Gravity*.

A reconstruction of the standpoint and the arguments following the pragma-dialectical analytical overview shows that the movie trailer benefits from a complex argumentative structure in which subordinate argumentation combines with multiple argumentation (van Eemeren, Grootendorst, 2004; van Eemeren, Grootendorst & Snoeck Henkemans, 2002).

1. You should watch *Gravity* (which will be released in theatres on 10.04.2013)
 - 1.1 The movie *Gravity* is entertaining
 - 1.1.1 The multimodal sequences (parts) that you are watching in the movie trailer are entertaining
 - 1.2 *Gravity* is good (is a movie of high quality)
 - 1.2.1 Sandra Bullock and George Clooney are starring
 - 1.2.2 *Gravity* is directed by Alfonso Cuarón
 - 1.2.3 *Gravity* is produced by Warner Bros. Pictures

The analytical overview shows that single aspects, or 'parts', of the movie are presented as details of quality; the quality of the parts of the movie is transferred to the movie as a whole and are presented as reasons for making *Gravity* worth watching.

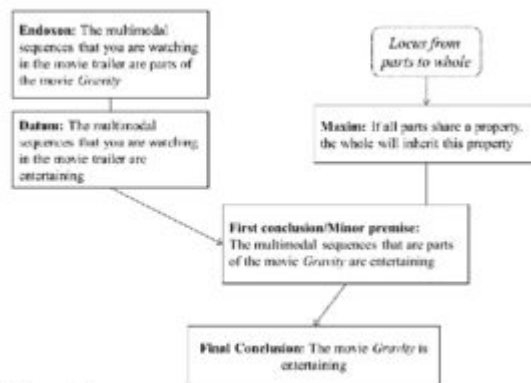


Figure 1

The Argumentum Model of Topics (Rigotti & Greco Morasso, 2010; see the literature cited there) is helpful in making explicit the inferential path that links the arguments and the standpoint by making explicit the locus that licenses the premises-conclusion relation. According to Rigotti and Greco Morasso, arguments are composed of two equally important dimensions: the endoxical (also known as

material or contextual) dimension and the logical (or procedural) dimension. In our case study, we see that the argument ‘The movie *Gravity* is entertaining’ (1.1) and ‘The multimodal sequences (parts) that you are watching in the movie trailer are entertaining’ (1.1.1) are linked by a synecdoche of the part-whole type that condenses a locus from parts to whole (figure 1). In the contextual dimension the endoxical premise ‘The multimodal sequences that you are watching in the movie trailer are parts of the movie *Gravity*’ combines with the factual premise (datum) ‘The multimodal sequences that you are watching in the movie trailer are entertaining’. The positive feature of being entertaining is transferred to the movie according to the maxim ‘If all parts share a property, the whole will inherit this property’.



Figure 2

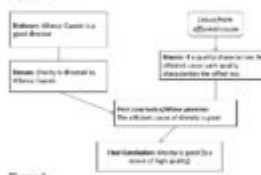


Figure 3



Figure 4

The arguments ‘Sandra Bullock and George Clooney are starring’ (1.2.1), ‘*Gravity* is directed by Alfonso Cuarón’ (1.2.2), and ‘*Gravity* is produced by Warner Bros. Pictures’ (1.2.3) that support the evaluative standpoint ‘*Gravity* is good (is a movie of high quality)’ (1.2) are linked to the movie by a metonymical relation. Warner Bros. Pictures is the film production company that produces the movie, it is linked through a metonymy of the producer-for-product type and makes the viewer infer an argument licensed by a locus from efficient cause (figure 2). The director Alfonso Cuarón is also linked to the movie with a metonymy of the producer-for-product type and it is based

on a locus from efficient cause as well (figure 3). Sandra Bullock and George Clooney are the actors that play the main characters of the movie; their link to the movie operates upon a metonymy and the line of reasoning is a locus from

efficient cause (figure 4). In the three arguments the quality of the production company, the actors and the director which is accepted as an endoxical premise is transferred to the movie in accordance with the maxim 'If a quality characterizes the efficient cause such quality characterizes the effect too'.

6. Conclusion

For now I am able to draw only some very preliminary conclusions that I will develop in future research.

Movie trailers can be reconstructed as argumentative discourses where the standpoint *You should watch movie X in the theatre* is supported by multimodal arguments. The multimodal sequences contribute in performing the overall act of movie trailers as discourses. The rhetorical patterns employed in movie trailers are argumentatively relevant, that is they make the viewers infer the intended argument licenses by a specific argument scheme or locus, e.g. synecdoche makes the view infer an argument licenses by a locus from parts to whole and metonymical relations make the viewer infer an argument licensed by a locus from efficient cause.

From the discussion and the presentation of the case study, I can draw the methodological consideration that a combination of approaches and disciplines is the only way to analyze complex audiovisual argumentative discourses.

NOTES

i. I am aware of the fact that the complex act performed by movies should not be easily dismissed and classified as 'entertainment'. Indeed, Alcolea-Banegas (2009) and Chatman (1990) claim that movies can argue. However, I will not deal with this issue here because it exceeds the topic of this paper.

ii. Movie trailers exaggerate the film's 'plot' "to maximise the viewer's expectations and curiosity concerning various aspects of the film and not just the film's story" (Maier, 2011, p. 145) and to raise doubt which are left unsolved "to trigger the viewers' keener expectations and persuade them to see the whole film later on" (p. 146). For Dornaletche Ruiz (2007, p. 105) the selection and montage of shots from the movie to realize a trailer is done with the objective of magnifying the movie and making its excellence stand out.

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ISSA Proceedings 2014 ~ The Method Of Peer Evaluation For Argument: The Learning Process Of Japanese College Students

Abstract: This paper aims at (1) introducing a teaching method of peer evaluation for argument especially for students who learn debating for the first time, and (2) examining their learning process. The curriculum consisted of fifteen classes (90 minutes) for a half-year period, and was used for college freshmen in the engineering department. After the classes, most students understood the importance of peer evaluation, and the average score of self-recognition toward peer evaluation became higher.

Keywords: Peer evaluation, College freshman, Debate, Argument, Learning process

1. Introduction

Recently, in Japan, argument education has drawn increasing attention from elementary to higher levels, as a means of cultivating argumentative skills as well as developing human resources in a globalized world. Argument skill is recognized as the framework which reflects thinking skills or thinking processes (Tomida & Maruno, 2004). Teaching how to argue with peers is the one of the important goals in higher education. In those classes, peer evaluation is sometimes introduced to improve learner's individual ability as well as to develop community of practice. Nakano (2007) found that to cultivate argument skills learners need to learn the stratified argument skills step by step and apply those skills to specific appropriate situations. Through peer evaluation, learners can accumulate the knowledge and skill of argument by exchanging comments with each other. It helps learners to foster self-understanding about what they have learned and have not learned. Learners acquire the viewpoint of evaluator and find their own task, which leads deep understanding on complicated phenomena of argument (Nakano, 2013).

Previous research reported that peer evaluation is effective as a way to educational evaluation based on the new ability evaluation (Cousins & Whitmore□1988). Along with the popularization of E-Learning, a lot of programs and systems include evaluation in the learning process of WBT (Web Based Training). In ordinary classes, peer-evaluation and self-evaluation are used in bulletin board system (Nakahara et al., 2002), video-on-demand and web-database. These effects were tested in the research by learners' satisfaction and motivation toward classes. However, empirical studies about how to teach peer evaluation in argument are scarce and its effect has not been sufficiently tested yet. The problem here is that teachers who have tried debate education experienced difficulties, as stating opinions to others is sometimes too hard for Japanese students mentally and technically (Inoue & Nakano, 2006; Nakano & Maruno, 2012).

The authors have done research on the new system of argument education using peer evaluation in these years. Nakano (2012) described the importance and the way of peer evaluation. In the author's laboratory, the research on the effects of peer evaluation were conducted in 2011 (Hirata, 2012) and in 2012 (Shibata, 2013) Based on these studies, this paper aims at (1) introducing a teaching method of peer evaluation for argument especially for college students who learn debating for the first time, and (2) examining their learning process for two years.

2. The tool for peer evaluation for argument

2.1 Goal and criteria

The goal of peer evaluation is to foster students' evaluation skills as well as their self-evaluation skills. As criteria, the two main categories "manner" (the content of argument) and "matter" (how to convey ones idea) in argument were selected for a tool for peer evaluation. Each category has five subordinate skills. The evaluation system with ten items of two categories was developed. It is simple and easy so that novice students take only 5 minutes to complete the evaluation. The system can be used as peer-evaluation as well as self-evaluation.

Table 1 The criteria of peer-evaluation for argument

Criteria		Score*
Manner	1 voice production	1-2-3-4-5
	2 speed	1-2-3-4-5
	3 tone	1-2-3-4-5
	4 pause	1-2-3-4-5
	5 eye contact	1-2-3-4-5
Matter	1 clearly stated claim	1-2-3-4-5
	2 reasonable reason	1-2-3-4-5
	3 example and data	1-2-3-4-5
	4 organization	1-2-3-4-5
	5 interest	1-2-3-4-5

*1 poor, 2 fair, 5 excellent

Table 1 The criteria of peer-evaluation for argument

*1 poor, 2 fair, 5 excellent

Table 1 shows the tool for peer evaluation for argument. The five items of “manner” are “voice production,” “speed,” “tone of voice,” “pause,” and “eye contact”. The ones of “matter” are “clearly stated claim,” “reasonable reason,” “example and data,” “organization,” and “interest”. Those items were extracted by the result of the author’s fifteen-year observation research for novice students. They are the items the novice students had common problem when they spoke in front of others. For quantitative evaluation, Five-point scale is used for evaluation; 1 is poor, 2 is fair, 5 is excellent. Along with this evaluation, students write about “good point” and “needs improvement” in free description as qualitative evaluation.

2.2 Procedure

2.2.1 Four steps of peer evaluation using a worksheet

There are four steps in peer evaluation. A worksheet is prepared according this procedure (see Appendix 1). The worksheet contains the following seven questions. Using this format of worksheet, the themes the students discuss were changed every class.

Q1: Please write your own opinion about “High School uniform should be abolished in Japan”

Q2: Please make a presentation using Q1 and evaluate members’ opinion.

Q3: Please write the evaluators’ comment about your opinion.

Q4: Please set your goal for the next presentation considering Q3.

Q5: Please analyze the best presentation in your group.

Q6: Did you change your opinion after sharing others’ opinion?

Q7: Why did you change, or didn’t you change in Q6?

In peer evaluation, first, a teacher makes a small group and decides a resolution. Students write their opinions in a worksheet in five to ten minutes (Appendix 1, Q1; step 1). After preparation, students decide the order of presentations in the group and they each make a presentation in about ten minutes. Students who are not presenters take memos and evaluate the presentation by filling in a worksheet (Q2; step 2). After presentations, students evaluate themselves, write about good points and improvement needed, and share the evaluation in the group in ten minutes. (Q3; step 3). Lastly, students discuss the gap between evaluations, set a goal about manner and matter, and analyze each other's opinion (Q4-7; step 4). After all the groups finish, a teacher and students discuss consistency and fairness of evaluation in the class. To improve students' skills, the teacher tells students to focus on the result of highest scores as strong points, and lower scores get close to the average.

2.2.2 Small step learning of manner and matter

As introduction, to learn peer evaluation effectively, two categories of manner and matter were used separately for the first time. After students used each category of five items, the complete version of ten items for manner and matter was used. When using a separate version for introduction, first manner and second matter is most effective, as students can evaluate manner base on their objective judgment. On the other hand, matter needs experience to judge the content. In the peer evaluation, the procedure is the same in manner and matter, so students can concentrate more on what they evaluate and get used to it.

2.3 Function and value

2.3.1 Understanding the gap between various evaluations

After exchanging ideas in a small group with around four students, students evaluate others' presentations and their own as self-evaluation using the format shown in Table 1. When the group consists of four, one student will have three evaluations from others. The students can learn the variety of evaluations from others, and the gap between others' evaluation and own self-evaluation at the same time. These multiphase feedbacks help students make an adjustment for improvement and understand what argument is.

2.3.2 The community of practice

Peer evaluation is effective to develop the community of practice in the class. Before introducing systemized peer evaluation, most of the students had trouble in making presentations and evaluations to unfamiliar students. A teacher

explained that the importance of peer evaluation is not for just criticizing others, but respect other's good points and improve by learning from others. Exchanging evaluations is the important part of communication, even though it is hard to say. In the class, the teacher always make consideration toward the students' mood and tells them when they say something wrong.

3. Method

To clarify the change of students in the long term, the two research studies in two years were conducted. Research 1 is based on Hirata (2012), and research 2 is Shibata (2013).

Research 1

The questionnaire research was conducted in the subject of "Communication I" which aimed at cultivating debating skills and logical thinking for freshman in Fukuoka Institute of Technology. The number of students were 36 ($M=36$, $F=0$). After experiencing peer evaluation in the prior four classes, they answered the questionnaire in ten minutes after the class on June 16th, 2011.

This paper reports the result of one question for comparison with research 2. Question 1 is about the attitude toward peer evaluation. 1-1 "I'm good at peer evaluation", 1-2 "I like peer evaluation", 1-3 "everyone can learn peer evaluation", 1-4 "I'd like to improve based on PE", 1-5 "peer evaluation is important", 1-6 "peer evaluation is useful in the future".

Research 2

The second research study was conducted in the "Presentation" which aimed at cultivating presentation skills for sophomore students. The number of students were 40 ($M=40$, $F=0$). Most students are the same as the research 1. In the class, peer evaluations were used. To test the changes more closely, two questionnaire research studies were conducted after the first presentation at the middle stage (on May 17th and 24th, 2012) and second presentation at the final stage (July 12th and 19th, 2012) each taking ten minutes.

Question 1 is the same as research 1. In addition, this paper reports two more questions for further analysis. Question 2 is about the object of peer evaluation, and Question 3 is about the image of peer evaluation.

4. Result and discussion

4.1 Quantitate analysis of Question 1

Fig.1 shows the results of Question 1 conducted in research 1 and 2. The average scores of research 1 were as follows: 1-1 2.5($SD=.97$) ; 1-2, 2.8($SD=.96$) ; 1-3, 3.6($SD=.87$); 1-4, 4.2($SD=.72$) ; 1-5, 4.3($SD=.73$) ; 1-6, 4.3($SD=.77$). These results clarify that most of the students feel “they are not good at peer evaluation” and “they don’t like peer evaluation”, although they recognize the importance and it is needed for the future, and have motivation. At the time of research study 1, students only experienced peer evaluation four times in the classes, so they might have been unfamiliar with the new communication style of peer evaluation. This result implicates that the tool and system of peer evaluation proposed in this paper contributed to their learning in the classes.

The results of Research study 2 in the middle were as follows: 1-1, 2.5($SD=.86$) ; 1-2, 2.6($SD=.87$); 1-3, 3.9($SD=.87$); 1-4, 4.1($SD=.88$); 1-5, 4.1($SD=.89$); 1-6, 4.2($SD=.90$). The results of Research study 2 in the final were: 1-1, 3.0 ($SD=.76$); 1-2, 3.1($SD=.76$); 1-3, 4.2($SD=.75$); 1-4, 4.3($SD=.76$); 1-5, 4.3($SD=.77$); 1-6, 4.2($SD=.78$). These results showed all the scores of Research 2-middle and final increased except for 1-6. The score of 1-1 and 1-2 which were lowest in average in the result 2-middle, increased most plus 0.5 point in each. These results show that the attitude changed positively through the presentation classes.

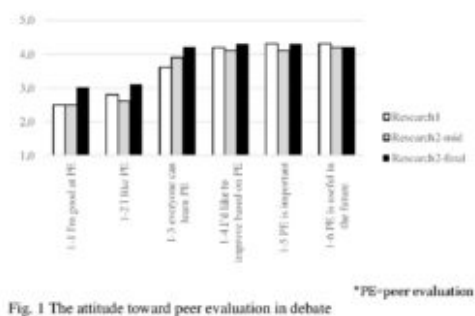


Fig. 1 The attitude toward peer evaluation in debate

*PE=peer evaluation

Comparing all the data of Research 1, 2-middle and 2-final in Table 1, we can see the gradual increase overall. There are three patterns in the result. One is the characteristic of 1-1 and 1-2, which are lowest of all and changed drastically through two years. Another is the items of 1-4, 1-5, and 1-6 which are highest and change little. The other is 1-3, which increased as the students became more

experienced in the classes. Overall the scores of sophomore in Research 2-middle and final are higher than freshmen in the Research 1, which implicates that the learning using the tool and system of peer evaluation succeeds in helping students become motivated in the classes.

4.2 Qualitative analysis of Question 2 to 6

The answers of free description on Question 2 to 6 can be summarized as follows:

Question 2 What is the object of peer evaluation?

- * *To develop one's merit and improve one's demerit by cooperating with others*
- * *To get interested and listen actively to others' opinions*
- * *To notice what I haven't noticed by myself*

Question 3 What is the image of peer evaluation?

- * *The good chance to reflect on myself*
- * *To improve my skill*
- * *To know my bad points*
- * *I don't have good image toward peer evaluation as I'm not good at evaluating others.*

Question 4 Do you think you changed the image of peer evaluation from freshmen?

- * *I don't know.*
- * *I don't remember.*
- * *I had trouble in evaluating others when I was a freshman, but now I've gotten used to it and think deeply in peer evaluation*

Question 5 When do you think you do peer evaluation in daily life?

- * *When I study with my friends*
- * *In conversation*
- * *Discussion watching TV news*
- * *In driving*

Question 6 What is the merit and demerit of peer evaluation?

The merit	
Evaluator	Presenter
<ul style="list-style-type: none"> • I can evaluate others by comparing with myself • To get skill to judge and listen to others • I can help others improve • I can notice my bad point • I can tell others what I feel 	<ul style="list-style-type: none"> • To improve bad points • To notice what I didn't know • I can do better the next time

The demerit	
Evaluator	Presenter
<ul style="list-style-type: none"> • To say something bad to my friend • Bad evaluation breaks a relationship • To hurt my friend • I cannot understand their opinion • My evaluation affects badly 	<ul style="list-style-type: none"> • To become deflated • To lose confidence • To be caught up in the evaluation by others

About Question 2 and 3, these results show that most of the students understand the reason why they learn peer evaluation in the class, effectiveness in improving skills, and understanding others. Peer evaluation helps students concentrate on listening to others as they need to evaluate. This is one of the important

factors in argument education in Japan. About Question 4, as stated in 4.1, the recognition toward peer evaluation became better and one of the students answered that he overcame the trouble in evaluating others and could concentrate much more on evaluation. In regards to Question 5, there are various answers and some students do peer evaluation in daily life, but others don't. These differences in daily-life communication might affect the individual differences in the classes. As for Question 6, there are a lot of merits and demerits dividing evaluator and presenter. This result shows that the students understand the meaning of peer evaluation, but they consider it might a break relationship between classmates. Japanese students are hesitant to say their opinion directly. This problem is because they are not confident in what they feel or think enough to tell others.

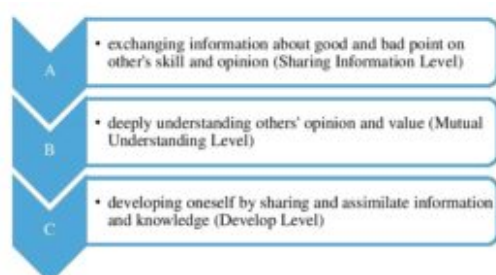


Fig. 2 The three level of the objectives of peer evaluation (Nakano, 2012)

Fig. 2 The three level of the objectives of peer evaluation (Nakano, 2012)

Nakano (2012) found that there are three levels of the objectives of peer evaluation shown in Fig.2: □A□exchanging information about good and bad points of other's skill and opinion (Sharing Information Level), □B□deeply understanding others' opinion and value (Mutual Understanding Level), □C□developing oneself

by sharing and assimilate information and knowledge (Develop Level). The result of this paper follows this model. By developing the tool and system of peer-evaluation for Japanese novice students, most of the students feel positive toward peer evaluation. In the process, they have changed from just sharing information to gradually understanding others, and finally they develop themselves using the experience of peer evaluation. The result shows some students still feel trouble in evaluating others. This is caused by inexperience in their lives. These individual differences need to be researched.

5. Conclusion

This paper aimed at (1) introducing a teaching method of peer evaluation for argument especially for college students who learn debating for the first time, and (2) examining their learning process for two years. As for the attitude of students toward peer evaluation, they were getting used to evaluating each other. Through peer evaluation, they seemed more concentrated on arguments by listening to others' opinion. At the same time, they judged their own opinion standing on the viewpoint of evaluator by evaluating others. These changes in the process are the essential points of peer evaluation. According to the results, the system for peer evaluation proposed in this paper fit the needs and levels of the students and worked properly as a tool for learning argument. On the other hand, some students still have a hard time in peer evaluation and lose confidence. In the future, a more systematic approach for the students who are not positive toward peer evaluation is needed.

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APPENDIX 1

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Argument Operators And Hinge Terms In Climate Science

Abstract: Climate scientist James Hansen's use of we call 'hinge terms' – such as 'dangerous' and 'tipping point'- operate to reconfigure argumentation on global warming by pre-scripting headlines of media coverage on scientific findings. Study of this case stands to elucidate an understudied aspect of the global warming controversy, as well as contribute to understanding of how 'argument operators' function to relocate arguments into different contexts, with potential implications for argumentation theory.

Keywords: global warming, argument activity type, rhetorical figures, James Hansen, rhetoric of science

1. Introduction

The intellectual roots of American argumentation scholarship intertwine with the tradition of public address criticism, a fact that helps account for the centrality of context in the work of prominent American scholars of argument (e.g., Newman 1961; Zarefsky 1990). The recent launch of the Dutch journal *Argumentation in Context*, along with a new book series by the same name, provides an occasion to explore how the American approach to criticism of public argument in situated contexts relates to new features of pragma-dialectics that emphasize contextual features of argumentation, such as the concept of "argumentative activity types" (van Eemeren & Houtlosser 2009).

Considerable attention has been devoted in pragma-dialectics to understanding how context may "discipline" norms for judging the soundness of arguments that unfold within a particular argumentative activity type (van Eemeren & Houtlosser 2009, p. 15). Left understudied, however, is the question of what happens when an argument shifts from one activity type to another, and further, what moves by interlocutors might spur, or block, such shifts.

We use the term "argument operators" to refer to detectable moves that change argument modalities. Our focus here is on operators that relocate arguments within different normative contexts. While context is featured in various ways within the literature of argumentation (e.g. fields, argumentation activity types), it is normally taken to be a form of pre-figured ground that constrains or

regulates what is possible within the given context. Our focus differs in that it calls attention to argumentative strategies that relocate an existing argument within a different context, thereby changing the norms and constraints that pertain to the argument.**[i]**

The specific argument operator that is our concern here is what we call the “hinge term,” and the case of climate scientist James Hansen’s argumentation on global warming provides an apt point of departure for our inquiry. The effect of the hinge term, as one type of argument operator, we contend, is to significantly affect the tenor and trajectory of climate change arguments. In particular, Hansen’s controversial use of hinge terms such as ‘dangerous’ and ‘tipping point’ in his peer reviewed journal articles operate to pivot his argumentation on global warming from the context of professional scientific discourse into the context of general public argument. In what follows, background on the Hansen case (in part two) paves the way for critical analysis of his strategic deployment of hinge terms (in part three). Part four draws lessons from the case study to sketch a speculative taxonomy of argument operators and open discussion about the possible utility of the concept. A concluding section reflects on how our intervention relates to ongoing work on argument context in pragma-dialectics.

2. From reticence to witnessing

Widely considered to be one of the world’s leading climate scientists, James Hansen began his research career by exploring how particulate matter in the Earth’s atmosphere refracts light from lunar eclipses (Matsushima, Zink & Hansen 1966). Shortly after completing his Ph.D. thesis at the University of Iowa, which dealt with properties of Venus’s clouds, Hansen realized that many of the same dynamics driving changes in Venus’s atmosphere might also be occurring on Earth. A decade of work from 1978 to 1988 that involved building a complex computer model of the Earth’s atmosphere led to Hansen’s first major public appearances as a scientist. As an official witness before the U.S. Congress during 1988 and 1989, Hansen declared with “99 percent confidence” that human carbon dioxide emissions were causing long-term warming in the Earth’s atmosphere.

Hansen’s bombshell congressional testimony provoked intense controversy and earned him the moniker “grandfather of climate change” – a role the scientist was not quick to embrace (McKie 2009). Following his first big splash as a public figure, Hansen (2009) “was firmly resolved to go back to pure science” and leave

media appearances to “people who were more articulate and seemed to enjoy the process” (p. xvi). This retreat to the laboratory was consistent with Hansen’s (2007a) perspective on “scientific reticence,” a default rhetorical posture for scientists that involves a tendency to understate claims and emphasize the uncertain, open-ended nature of scientific knowledge (see also Ziman 2000).

For nearly a decade following his blockbuster congressional testimony in 1988/1989, Hansen practiced scientific reticence, publishing findings from his work on Global Circulation Models in peer reviewed journals and eschewing opportunities to appear in the media spotlight. Yet that posture changed in 1998, when Hansen agreed to participate in public debates on global warming with climate “contrarians” Patrick Michaels in New York City, and Richard Lindzen in Cambridge, Massachusetts (Mitchell & O’Donnell 2000). As Hansen (2009) explained his motivation for stepping out of the laboratory and into the public square for the first time since his famous congressional testimony, “I wanted to present and publish a table of the key differences between my position regarding global warming and the position of the contrarians” (p. xvi).

Hansen’s participation in the New York debate marked a turning point in his career, as afterward he increasingly embraced the role of a “public witness” to the dangers of global warming, especially following the birth of his first grandchild in 1999 (Hansen 2009, p. xii). This path would eventually lead to Hansen’s appearances at rock concerts and protest demonstrations with climate change activists (Eilperin & Mufson 2013). Also during this period, a subtle shift in the rhetorical arc of his scientific papers could be detected. For example, in an article published in *Atmospheric Chemistry & Physics*, Hansen and colleagues (Hansen et al. 2007a) repeatedly use the terms ‘tipping point’ and ‘dangerous’ to describe global warming. Major news outlets parroted those terms in headlines during the news cycle in which the paper was published:

- * “Research finds that Earth’s climate is approaching ‘dangerous’ point” (*PR Newswire* 2007);
- * “NASA Research Suggests Earth climate approaching dangerous point” (*Space Daily* 2007);
- * “Earth nears tipping point on climate change.” (*Spotts* 2007)

Messages of danger are part of the stock and trade of newspapers, so Hansen was in effect pre-scripting headlines for general circulation and pivoting toward a different context and rhetorical stance. As a scientific argument became a public

argument, the assessment of “facts” would move into a normative environment where questions of “value” and policy response would predictably arise. This netted Hansen a broader audience, but it complicated his voice as a scientist. Was he now acting as an advocate?

3. *‘Dangerous’ and ‘tipping point’ as hinge terms*

By 2007, Hansen had become engaged fully in the rhetorical project of trying to invent ways of communicating the gravity of what he called the ‘climate catastrophe’ (2007b) to broader publics. In one open communication on his personal website, he mused:

A related alternative metaphor, perhaps less objectionable while still making the most basic point, comes to mind in connection with an image of crashing of massive ice sheets fronts into the sea – an image of relevance to both climate tipping points and consequences (sea level rise). Can these crashing glaciers serve as a Krystal Nacht, and wake us up to the inhumane consequences of averting our eyes? Alas, that metaphor probably would be greeted with the same reaction from the people who objected to the first. That reaction may have been spurred by the clever mischaracterization of the CEO, aiming to achieve just such a reaction. So far that seems to have been the story: the special interests have been cleverer than us, preventing the public from seeing the crisis that should be in view. It is hard for me to think of a different equally poignant example of the foreseeable consequence faced by fellow creatures on the planet. Suggestions are welcome. (Hansen 2007c)

This candid reflection laid bare for Hansen a fundamental dilemma facing scientists working on politically charged topics. The tradition of scientific reticence counsels restraint, yet the ethical calling to bear witness may demand more strident rhetoric. Ultimately, Hansen and colleagues settled on the terms ‘dangerous’ and ‘tipping point’ as red flags to heighten salience of the issue. While Hansen personally deployed such terms increasingly during public appearances, he also worked with his co-authors to pepper their scientific papers with these terms. For example, the previously mentioned *Atmospheric Chemistry & Physics* paper (Hansen et al. 2007) features 36 mentions of ‘dangerous’ in various contexts (see Table 1).

Mention Number	Page Number	Reference
1	1127	"dangerous" human-made interference
2	1127	Identification of "dangerous" effects is partly subjective
3	1127	It is up to "dangerous"
4	1127	"dangerous" human interference
5	1194	"Dangerous" anthropogenic interference
6	1194	"Dangerous" anthropogenic interference
7	1194	Dangerous climate interference
8	1194	"Dangerous" climate change
9	1194	Dangerous human-made climate effects
10	1194	"Dangerous anthropogenic interference"
11	1194	Dangerous human interference
12	1197	Making that scenario less "dangerous"
13	1198	Dangerous climate change
14	1198	One such is "dangerous"
15	1198	"Dangerous anthropogenic interference"
16	1198	Dangerous interference
17	1198	Likely to be dangerous
18	1198	Assessment of dangerous
19	1198	Dangerous level of global warming
20	1198	Dangerous effects
21	1198	Dangerous change
22	1198	"Dangerous level"
23	1198	Dangerous regime
24	1198	"Dangerous anthropogenic interference"
25	1198	Dangerous anthropogenic interference
26	1198	Dangerous climate change
27	1198	Dangerous climate change
28	1198	Dangerous human-made interference
29	1198	A factor such "dangerous"
30	1198	"Dangerous" level
31	1198	"Dangerous" climate change
32	1198	"Dangerous" climate change
33	1198	"Dangerous" climate change
34	1198	Dangerous climate change
35	1198	Dangerous climate effects
36	1198	Dangerous climate change

Table 1. Mentions of "dangerous" in Hansen et al. (2007). References with quotation marks are in blue, while references without quotation marks are in red.

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Notably, the first four mentions of the term "dangerous" on the paper's first page are accompanied by quotation marks, indicating perhaps some hesitance regarding use of the term. However, in the final five pages of the paper, these quotation marks drop out and dangerous appears as an unqualified adjective in 9 of 16 instances. In the penultimate discussion section, all three mentions of dangerous appear without quotations. This progression may reflect a common tendency of authors to move from a tentative to a more authoritative voice as their papers develop (Fahnestock 1998; Holmes 1997; Peacock 2002; Ruiying & Allison 2003), yet such maneuvers did not escape the notice of the peer review referees. In an interactive comment published in *Atmospheric Chemistry & Physics Discussions*, Hansen and colleagues (2007, p. S7351) note that referee #1 "expressed mild concern about terms such as 'dangerous anthropogenic interference,' 'disruptive climate effects,' and 'tipping points.'"

Some of this pushback may have stemmed from the sheer number of 'dangerous' references in the paper. As Jeanne Fahnestock (1999, pp. 160-172) observes, strategic repetition of key terms (characterized by the classical rhetorical figure of *ploche*) can heighten the impact of scientific argumentation on audiences. Fahnestock points to Charles Darwin's deployment of "subtler repetitions that

declare identity in reference or the interconnections among phenomena” to illustrate how *ploche* can operate to heighten, in the terminology of Perelman and Olbrechts-Tyteca (1969, p. 144), a scientific argument’s ‘presence.’ Just as Darwin eschewed mere repetition, instead weaving different meanings through recurrent references, Hansen and colleagues deploy ‘dangerous’ in an array of different usages, in effect producing a pedagogy of dangerousness from which journalists could learn.

Previous scholarship has explored some of the rhetorical entailments associated with Hansen’s use of terms such as ‘tipping point.’ For example, Russill (2008, 2010) notes that in the global warming controversy, ‘tipping point’ tends to invoke the interests of future generations, as irreversible, runaway climate change would be most harmful to those not yet born. Yet as Figure 1 illustrates, concepts from the rhetorical tradition furnish a set of transformations that point to ways that Hansen’s hinge term strategy may carry even broader implications.

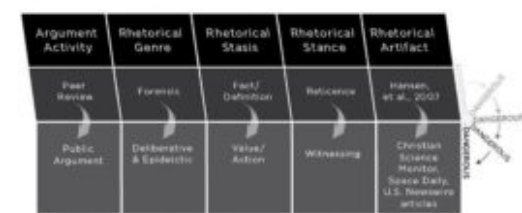


Figure 1. Rhetorical concepts illustrate ways that the hinge term ‘dangerous’ enables discourse to swing from one activity, genre, stasis or stance to another.

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As the far left column suggests, successful deployment of the hinge term ‘dangerous’ enables discourse to swing from the argument activity type of scientific peer review to a different one – general public argument. In a related transformation, alterations in types of questions asked and goals pursued by interlocutors are marked by a shift in rhetorical genre. Whereas scientific discourse tends to follow patterns of reasoning associated with the forensic genre (rooted in the rhetorical tradition of adjudication in the law courts), public argument tends to feature epideictic (ceremonial) and deliberative (political decision-making) forms of reasoning (Fahnestock 1998). As the discourse

migrates in this fashion, a further element of transformation occurs at the level of rhetorical stases, with argumentation “pulled” (Walsh 2010) from *stases* of fact and definition, into a different stasis point in which interlocutors debate how contingent value judgments relate to possible future courses of action. Aligned with all of these transformations is a concomitant shift evident in “rhetorical stance” (Booth 1963), as Hansen himself moves from self-identifying as a “reticent scientist” to a “public witness.”

4. *Argument operators: nudge, pivot, or jump*

The Hansen case calls to the fore three possible approaches to context-switching, and the response to Hansen sorts out to some degree according to which of these the audience senses his speech acts are aspiring to do. To identify these shifts we use intuitive language – common verbs, not adjectives – rather than terminology that aims for technical precision. These operators, we suggest, can do the following:

- * Nudge an argument into a wider or narrower context, thereby expanding the range of rational strictures on relevance (see Walton 2003), but without introducing competing or conflicting accounts;**[ii]**
- * Pivot strategically between competing or complementary contexts of rational assessment;
- * Jump to an alternative context.

The first two of these may serve as bridges from one context to another, whereas the third makes a leap. The response to Hansen seems to depend in large part on which of these his readers are sensing. Being both a scientist and a citizen, Hansen might see his repeated invocation of the term ‘dangerous’ as a way of nudging his audience into a wider context that encompasses science but also the field of citizen action. While we do not reject such a characterization, our analysis picks up on what can be seen as a strategic pivot from one generic context, with its usual strictures and enablements to another. His critics seem inclined to see Hansen’s performance as a kind of abandonment – jumping ship, so to speak – by violating constraints of a professional context in order to play out the argument in a different context. They would no doubt see that characterization underlined by Hansen’s subsequent activism. In response, Hansen might point to the fact that the term ‘dangerous’ had been utilized previously in major scientific reports on climate change, and that ‘tipping point’ language was justified because it “conveys aspects of climate change that have been an impediment to public

appreciation of the urgency of addressing human-caused global warning” (Hansen et al. 2007b, p. S7351). All of these considerations come to bear as we interrogate the kind of speech acts Hansen was deploying.

With one foot in the lab and one foot in the public media, it is quite possible that Hansen could be celebrated as exemplary of the “third culture” figure, who manages to speak persuasively across the boundaries between fields of expertise and contexts of public argument, contributing to a culture that consists of both experts and non-experts, and constituted in such a way that effective participation requires accepting the legitimacy of both empirical and interpretive methods (Lyne 2010). In that case we would have to see him in a rather different light than some of his critics have. He would be seen as crafting a distinctive voice that bridges, or “nudges” toward a more encompassing audience.

Because we regard arguments as something more than meaningful texts, we take their meaning to function in relation to human action. On this approach, the wider investigative terrain for argument operators is suggested by the speech act vocabulary, following John Searle (1969) and other speech act theorists (Austin 1975; van Eemeren & Grootendorst 1984), of locution, illocution, and perlocution which we translate as ways of posing the following general questions:

- * Locution: What are you saying?
- * Illocution: What are you doing?
- * Perlocution: What effect are you having?

As we move down the list, each function presupposes what is listed above. That is, someone says in order to do in order to have some kind of effect. The last category, perlocution, can be variously understood as an actual consequence of an illocution, as an intended consequence of an illocution, or as a rationally foreseeable consequence of an illocution. We do not wish to exclude any of these from our consideration of ‘argumentative effects,’ that is, of the way speech acts influence ongoing or subsequent arguments or argumentative moves. Thus, the purview of this analysis would be possible interactions that can be taken as specifically relevant to an argument, but it would not include any other kind of effect (e.g. hurt feelings, anger, delight).

In reference to the “hinging” we are looking at here, the hinge effect is performed at all three levels of the speech act. In saying that conditions are dangerous, Hansen is making a shift in the argumentative context, with the effect that a

number of entanglements – ranging from genre relevance to contestation of appropriateness – begin to work at once. But the nature of the shift is such that it can be interpreted in several different and contestable ways (see Figure 2).

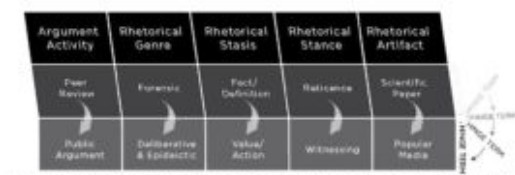


Figure 2. Hinge term dynamics. Hinge terms enable arguments to swing between genres and stases, with associated shifts in the arguer's rhetorical stance, artifact produced and activity type.

Returning to a generic reconstruction of the diagram presented in the previous section, we see five categories that that appear to move in unison. This, we believe, is why the instance of deploying a hinge term particularly invites attention. Understood as a speech act, Hansen's repeated references to danger would reasonably be taken as a warning. And whether by intention or not, the illocutionary act of warning within one context has the perlocutionary consequence of pivoting the argument into another discourse frame. As the warning of danger breaks out of the confines of the presumptive scientific stasis, it produces a secondary perlocutionary effect of moving from "fact" to "value." Moreover, the shift of stases has a gravitational pull that brings changes within each of the other categories (Walsh 2010). The text is now recontextualized as public argument, where it stirs controversy, and signals differences of genre, stasis, stance, and artifact. To the consternation of many, the line between science and public controversy begins to dissolve.

5. *Scoping out the landscape*

We have argued that the hinge term, in its functional sense, inflects toward, or toggles between, different registers of argument. What it "means," in the most robust sense, is therefore what it does when affirmed or invoked, that is, what it does when introduced by a speech act. What it does to the argument is something more consequential than a mere figure of speech. In this case, for instance, the

terms “danger” and “tipping point” cannot be sequestered as mere metaphors. Rather than non-literal flourishes, the introduction of such hinge terms into an argument is a speech act (or a set of speech acts) with the capacity to move arguments in a different direction, specifically toward different cognitive, affective, cultural, semiotic, or praxial registers. This can be done either as a deliberate strategy or an unintended consequence of the introduction of the term, and its consequences can be both foreseen and unforeseen. One of the consequences in this case was an inflection toward arguments about the objective limits of science and accusations that these terms had taken Hansen into a “subjective” frame, where their purchase as scientific claims were questioned.

In describing argument operators specific to this case, we have introduced strategies of context-shifting. Beyond the hinge term and related context shifters, this case leads us to anticipate other argument operators that have different modal functions in argument. Hansen was criticized for acting as an advocate. If he was acting as an advocate, at what point did that voice emerge? Was it when he dropped the quotation marks when using the word “dangerous”? Or were there gradations of his shift, perhaps subtly indicated, and when he engaged in a debate before academics not in his field? Depending on how that question is answered, his arguments are likely to be judged by one set of norms or by another. In argumentation literature, we observe that arguments are generally aligned with the intention of the arguer, and it is assumed that the arguer has a unitary voice, such that that person could be held responsible for inconsistencies or implications of the argument they are making. Moreover, we assume that the author’s intentions are framed with a particular normative context in mind. This would be the standard case of having a “voice” in an argument.

It is the arguer with the unitary voice that is typically assumed in philosophical discussions of rationality. The leading advocate of philosophical “inferentialism,” Robert Brandom, speaks of personal accountability in terms of “scorekeeping,” whereby participants in an argument constantly track and update the commitments and authorizations made by either party in order to make explicit the rational purport of any utterance (Brandom 2000). This is a dynamic way of thinking about argument as process, because it depends on the relationship between present and past assertions rather than on constructs in isolation. And this is a useful way of thinking about the trail of assertions as they chain out. But in view of the shifts of context, voice, and other functions of argument operators

that we have been referencing, one might well ask if it is pragmatic to think of arguments only in terms of verbalized propositions by philosophically focused interlocutors. To understand the complexity of context and its relationship to argument, it might be useful to consider whether there are a number of different scoreboards and *ways of scoring that are the very things at stake* in many arguments (Lyne 2013). Public address scholars, who are observant of the relationship between propositional and non-propositional features of public argument, as well as the various ways that that rational arguments may play out, have something to bring to the table in laying out argument operators.

We know arguers modulate the voice they are using to advance an argument, sometimes by “ventriloquizing” the positions of others, or laying out the position of what another would say were they in top form. This kind of voicing is perhaps most clearly apparent when a surrogate stands in for a political candidate in a debate, where the aspiration would be to offer up the arguments the candidate *would* or *could* make. Somewhat differently, a defense attorney makes the best arguments possible, not because he or she necessarily believes them, but because they are thought to support the best case that might be made in defense of the client. Other arguments, we well know, are made “for the sake of argument,” without binding the hands of the arguer. We might well ask what are the ways of shifting in and out of any given frame of time-binding accountability.

The formal framing of a staged debate or of a courtroom trial generally eliminates any ambiguity about whether the arguments presented should be seen as isomorphic with those that the arguer would be personally and ethically accountable for making. In other cases ambiguity or confusion can arise, as when arguers shift between or among voices. So it would be worthwhile to pay attention to indicators of voice shiftings. These might be found in tonal changes, changes of body language, or stylistic changes – factors that have been of interest to students of public address but have generally been backgrounded in pragmatic analysis of argument.

We have seen from pragma-dialectics that arguments play out differently in different types of argumentative activities. Here we are suggesting that even within a given argument activity a shifting of voice can change the function of an argument. So in addition to context-shifters, other argument operators may need to be fleshed out. This is among the reasons we believe that the juncture between public address studies and argument studies may enrich both.

NOTES

- i. We note that the term “operators,” as defined by computer programming languages, may show some elemental similarities to the ones we are describing, in that they allow manipulations of “semantic” as well as “syntactic” properties. At present, however, the language of “genre,” “stance,” “audience,” and so on, seem reserved for natural languages used in non-computational contexts. This is not to say that these could not be represented in binary code.
- ii. Here we highlight “expansion” rather than shifts, but these are not always distinct, as Burke (1945) points out in commentary on “scope and reduction” (pp. 59-117).

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