

A Good Paper Makes a Case: Teaching Academic Writing the Macro-Toulmin Way*

In this paper, we contend that students' problems with genre and task definition in the writing of academic papers may be helped if we adapt Toulmin's argument model to explain what the genre requirements of the academic paper are, as opposed to everyday argumentation. The student should be encouraged to apply the model as an assessment criterion and, at the same time, as a heuristic tool during her work on the paper. This involves a "macroscopic" or "top-down" approach to the evolving draft, not a "microscopic" analysis of individual passages. The paper suggests a number of class activities that will help students apply a "Macro-Toulmin" view to their own work.

Faculty across all departments, perhaps especially in the liberal arts subjects, have trouble teaching students what an academic paper is, and how to write it. Central to the problem is students' difficulty with "task definition" (Flower *et al.* 1990), i.e., in making the appropriate "task interpretation" (Nelson, 1990). Another way of saying this is that what many students lack is not the motivation or even the ability to write good academic discourse, but an understanding of the *genre* of the academic paper. They fail to understand one or more of the following: the overall *purpose* of the academic paper, its *components*, and how the components *contribute* to the overall purpose. This is frustrating for teachers, but it is even more frustrating for students. Often they find themselves lavishing high hopes and hard work, only to receive the dampening response that they are trying to do the wrong thing.

We suggest that Toulmin's argument model (1958), in a particular interpretation, is a significant help against this frustration, for teachers and

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students alike. To argumentation scholars, there is nothing new in using the Toulmin model for pedagogical purposes; however, its use in general argumentation courses is, in many people's experience, very debatable—a view also taken in Fulkerson's comprehensive discussion (1996), with which we tend to agree. But what we shall suggest in this paper is that the model, while not particularly successful in general argumentation pedagogy, is highly useful precisely when it comes to teaching *academic* writing.

In our view, the main problem with the Toulmin model in relation to general argumentation from everyday life is that it sends students searching for warrants in texts where the warrant, ever so often, is simply not there. Instead, such texts often contain multiple grounds or data for the claim they support. Armed with Toulmin's model, students tend arbitrarily to label some of these "warrants" and others "data," but they often realize that there is no real difference in status between the elements thus labelled—and confusion ensues.

A better approach, but still a problematic one, is to point out that everyday argumentation is often based on tacit "assumptions" of a general kind. Toulmin's model may then be invoked, with "warrant" serving as a synonym for such assumptions. This is the approach taken in one of the better argumentation textbooks, John Gage's *The Shape of Reason* (1991). However, the explicit formulation of other people's tacit assumptions—what many argumentation theorists call "reconstructing" the argument—is, we believe, a questionable practice, especially when it amounts to formulating those unstated premises that will make the argument deductively "valid" (cf. van Eemeren *et al.* 1993).

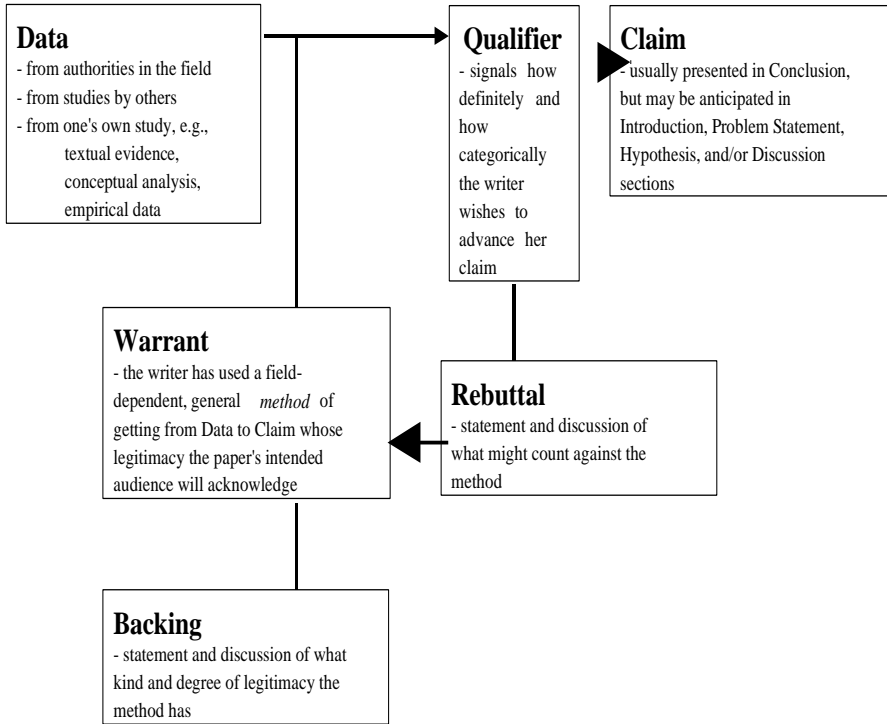
But the typical absence of stated warrants in everyday argumentation is precisely one of the major features that separate it from argumentation as it is supposed to be in academic papers. Thus, what amounts to a weakness in the Toulmin model when applied to the analysis of ordinary argument is a strength when we use it as a tool in teaching the academic paper. We contend that students' problems with genre and task definition in the writing of academic papers may be significantly helped if we adapt the model to explain what the genre requirements of the academic paper are.

The adaptation implies that we use the model in a *macroscopic* way—hence our neologism, "Macro-Toulmin." We suggest that we should use the model to attack the difficulties of the academic paper top-down, saying to students, "The overall purpose, components, and inner functioning of an

academic paper *as a whole* can be better understood by means of this model.”

What this means in practice is that the student is encouraged to apply the model as an assessment criterion and, at the same time, as a heuristic tool during her work on the paper. The idea is not to use it microscopically, looking at individual sentences in her text and checking for data or warrants for claims that occur (or do not occur) in them. This is the way the model is often used in attempts to adapt it to the analysis of everyday argumentative texts. Instead, we suggest that the student should learn to apply the model to her evolving draft in a top-down manner, asking herself, “Does my draft contain material that will fit into each of the six categories represented by the model?” As a general rule we suggest that a “default” good academic paper contains material representing each of the six categories. The accompanying graph (see next page) will illustrate how.

As the figure suggests, the *Claim* in a typical academic paper is something that will often be located in the conclusion. This feature, incidentally, is one that often annoys non-academic readers, who (understandably) expect to be told or at least warned from the outset what the drift of the paper is going to be. Wise instructors, especially in academic sub-genres that come close to non-academic writing, such as literary criticism, comply with this expectation by asking students to offer the reader some pre-understanding of their line of argument in the Introduction. But in many academic papers, perhaps most, the claim cannot be located in one or two single passages. Even so, a good paper does make a claim. It should not merely be the kind of paper that many students write, and which some are even required to write, titled “An Analysis of” Such a paper is not a valid instantiation of what academic research is about; rather, it can be seen as an exercise that sharpens a skill necessary for doing “real” papers, i.e., real research work. A good paper is not merely an “analysis” of something; it may use analysis as a tool, but its end is to make a point or claim.



There are many criteria that the claim in an academic paper should live up to, more than can be discussed here; but the first criterion is simply that the claim should be there. The student should have something to say—she should make a statement that is hers, not just reiterate or summarize statements made by the scholars she has studied.

The second category is, of course, *Data*. It usually constitutes the body of the paper. Basic criteria for the data include: 1) Data should support the claim. 2) Data that are irrelevant to the claim should be omitted. 3) Data that the student can be expected to know, and which might serve to undermine or qualify the claim, should be discussed.

Data may be of at least three kinds; what a specific paper, including the present one, has to present by way of data is often a combination of all three types:

1) Theoretical data, i.e., theories, concepts, definitions drawn from authorities, either esteemed individuals (for example, “Habermas says”) or current paradigms (for example, “it is generally assumed in Generative Grammar ... ”). Such general assumptions belonging to a current paradigm that the writer subscribes to are often presupposed rather than stated.

2) Specific data, drawn from studies by others.

3) Specific data, drawn from one's own study.

Specific data may include, according to field: textual evidence, conceptual analysis, examples, qualitative or quantitative empirical data, and many more.

The *Warrant* category: One of the defining features, perhaps the constitutive feature, of academic writing is that the writer should carefully discuss the warrant for the data she presents. Debaters in practical argument are generally not required to do so, and rarely do it—which is part of the reason why we find it so hard to teach the proper understanding of warrant in practical, extended argument. What happens when students try to apply the Toulmin model to instances of practical argument is often that they arbitrarily label some of the statements in the text “data” and others “warrant,” while other students analysing the same text may have applied these labels the other way around.

In academic writing, as opposed to practical argument, the notion of warrant has much more meaning. This will be clear when we specify that what we propose to call warrant in academic writing is what academics often refer to as *method*. The method in a piece of research can be defined as its manner of collecting, selecting, and interpreting data. A given academic field allows and makes possible the use of certain types of data, and it prescribes ways these data may or may not be interpreted.

In some fields the methods are few, strictly defined and rigorously adhered to. In other fields, it is common that new studies give methodology a slightly new twist, e.g., by suggesting new types of data (as, for example, a new type of qualitative interview). In such cases it is essential that the paper clearly explain how these data are collected, selected, and interpreted. It may be that the method is drawn or at least inspired by studies in a neighbouring field; the method may also be a combination of traditional features, borrowed or adapted features, and new features. By codifying how to interpret data, methods constitute the bridge between data and claim; and this is why warrant is really another word for method.

Like warrants, methods are field-dependent. In fact, warrants or methods are not only field-dependent; they are actually constitutive of fields. The mastery of the codes we call method or warrant is at the heart of what constitutes professional competence in any academic field. Bazerman (1981) presents an instructive study of how professional competence in

three highly separate academic fields is largely constituted by differing norms as to what counts as warrants in the respective fields.

Backing, according to Toulmin, is what we come up with if we are asked “why *in general* this warrant should be accepted as having authority” (1958, p. 103). That is, the “backing” category should be represented by statements about how and why we are justified in adducing and interpreting the data we offer in support of our claim. And that implies discussing and defending not only this way of interpreting, but also the way we collect and select our data. Here again we have various options. We may refer to authority, either “authority figures” (here again, Habermas may be our example) or a current paradigm that sanctions such an interpretation; or we may point to parallel studies where a similar or related method has borne fruitful and reliable results. The synonym generally used for what the model labels backing is *theory*.

Rebuttal indicates “circumstances in which the general authority of the warrant would have to be set aside” (Toulmin 1958, p. 101). The criterion that there has to be something in the rebuttal category means that the paper must show awareness of what counts against allowing the step from data to claim. Hence the rebuttal category is connected to the warrant category; notice that rebuttal in this sense does not include data that seems to count against the claim; such data should be discussed in the paper as well, but belong in the data category, as mentioned above.

Rebuttal may take many forms, according to field. On a very general level, a specific study might lead to the kind of fundamental problems of theory or paradigm known to many fields, for example as to whether the study of human phenomena is better or worse off by limiting itself to the observation of behaviour, or whether introspection is allowable or preferable, and the like. In other situations, there might be specific questions, of either a theoretical, a practical or even an ethical nature, which might be raised to question the warrant of the data used.

What we see generally is that awareness of what might count in rebuttal of one’s method of interpreting is central not only to the merit of an individual paper, but also to the professional competence and identity of the writer.

Taken together, the three elements Warrant, Backing and Rebuttal constitute what we might call a full-blown statement and discussion of Method. Depending on how known and accepted that method is by the intended audience, the categories Backing and Rebuttal may be represented

by more or less material. The liminal case is research papers written so squarely within a paradigm accepted by the intended audience that the warrant may be taken for granted. This may be so, for example, in certain schools of literary criticism where the use of biographical data in the interpretation of texts by a given writer is seen as a matter of course (whereas other schools, as is well known, do not take that view at all). Here we may in fact see papers consisting exclusively of data and claim—and perhaps some instantiation of the last of the six elements in the model: the qualifier.

The *Qualifier*, in Toulmin's own words, indicates "the strength conferred by the warrant" on the step from data to claim. For the academic paper, this means that the student should discuss or at least signal how definitely and how categorically she wishes to advance her claim. There need not be any separate passage that can be labelled "qualifier"; more often a certain amount of qualification is indicated along the way by means of phrases like "this rather strongly suggests" or "a plausible interpretation would be."

We believe that the Toulmin model, thus interpreted, may not only help students understand the definition of the task of that problematic genre, the academic paper; it may also be a procedural help to them in producing such papers: While work on the paper is in progress, the student may use the model as a criterion for assessing material already in the draft, as well as a heuristic for inventing material still missing—by asking, "What have I got in this draft to fit into each of the categories represented in the model?" Thus, the model may help giving an awareness of the overall function of the genre, as well as of its component parts. Also, just as it may help in assessing one's own writing-in-progress, it may also help students read and assess academic writing by others.

In our experience, the main pedagogical advantage of using the Toulmin model as a macroscopic layout of the academic paper is that it increases the student's sense of the paper as one focused or functional unity. Students get a better understanding of what intimidating words like "data," "method," and "theory" refer to if they understand more clearly what these elements *do*. This in turn helps them tie the components of their paper together. This is also true on the verbal level, where we may see an increased and more discriminating use of meta-discourse—signposts telling the reader how the parts of the text work together.

On the level of substance, students may, for instance, suddenly realize how theories may supply the Backing that legitimizes or even prescribes a

certain methodological choice; this again may help them collect, select, and interpret the material that constitutes their data. They may realize the various functions that theory may have in academic discourse, which may in turn help them generate theoretical ideas of their own and give them a critical understanding of what goes on in professional debates within a field. A functional awareness of Backing and Rebuttal may help them make a Claim that is no greater than their data will plausibly permit, and with the appropriate degree of qualification. Students realize how important it is for the plausibility of their claim that Method is made explicit (Warrant), legitimized (Backing) and scrutinized (Rebuttal). Essentially, students may learn to *assess* critically the merit of their own work—a skill high in the Bloom hierarchy of educational goals. This in turn may help them assess strengths and weakness in the work of others, either their peers or established authorities in their field.

Many students have difficulty applying theories in a critical and constructive way. This, we believe, is especially so in those fields in the humanities where methodological considerations are usually implicit rather than explicit, e.g., literary criticism. Student papers in these fields often leave the impression that theories are adduced, not in order to strengthen the writer's argument, but in order to please the instructor. Students whose papers seem to use theories in this way may benefit from seeing how theories function in an overall argumentative plan; they may realize that theories matter to method, both as legitimization and as criticism. And they may see that theories themselves may be subject to analysis in terms of argument structure.

Finally, approaching the academic paper as one argument may benefit students by heightening their awareness of the uses of metadiscourse to signal the overall plan of a paper. As noted by, among others, Prosser and Webb (1994), the presence of meaningful metadiscourse significantly makes for higher grades; Hyland (1998) has shown how meta-discourse in academic writing functions not only as a help for the reader to understand the intended structural relations within the paper, but also text-externally, (i.e., relations to discourse outside the text itself), by alluding to presupposed disciplinary assumptions and by helping the reader construct appropriate contexts.

Admittedly, the approach to the paper as one and just one argument is a pedagogical simplification. Many academic papers can better be described as making several claims, either parallel or hierarchically arranged (or a combination of both). Still, the model has the pedagogical advantage of

facilitating novices' overall understanding of the genre, as well as of the specific paper they are working on. In our experience, the model does not inhibit creativity; instead, the overview of the paper's constituent parts that the model affords often allows students to improve further on its design.

We have used the model in teaching academic writing in a variety of formats. In the most basic version, it is possible, in a one-hour period, to introduce the model and offer a few examples of its elements with reference to excerpts or projects contributed by students in the class. A more spacious format is a seminar of two separate three-hour sessions. This allows for more elaborate presentation of the model, more extensive exemplification from students' papers in progress with class discussion, and some exercise activities, of which we will describe a few.

Activity: Early Claim Formulation

This is the instruction given to the class for this activity:

1. Write freely for 8-10 minutes on “the essence of my papers is ...”
2. Boil down the essence of your paper to one sentence—either a statement or a question.
3. Based on this sentence, state the claim of your paper. To help you do this, ask yourself the following question: “If I were to hand in this paper to-morrow, what would my conclusion be?”
4. Read aloud—let us all hear what claims in research papers may sound like.
5. (Optional question to the class:) Which of these claims would you choose to base a paper on?

Activity: Analysis of Model Examples

We generally use fairly short excerpts from selected student papers (max. 3 pages, preferably with line numbers). These papers are not by participants, but it is still important to use student papers so as to encourage the response “Whatever they can do, I can do.” After silent in-class reading, everyone is instructed to locate claims, data, warrant, rebuttal, backing, and qualifiers. The aim is to teach students to identify the various elements, which are not always separate or neatly marked off, and assess the balance in the argument as a whole—e.g., will this set of data support a claim as large as this, is there enough backing, shouldn't the qualifiers be stronger?

This activity is a useful exercise before analysing the participants' own papers-in-progress.

Activity: The Devil's Advocate—Critical Assessment of Argumentation in Others

The class looks closely at the argumentation in a paper and discusses whether each element is sound in itself, and whether the elements are in harmony. As an aid in this discussion, a checklist with these questions is handed out:

- What is the main claim? Given the argumentation presented in the paper, is it reasonable to make this claim?
- From where is data drawn to support the claim? Is the data credible and sufficient?
- What is the warrant, i.e., what method is used? Has the method been used in a sound way?
- What problems are there in connection with this method? What possible rebuttals are there?
- Why is the method applicable? What backing is there that may eliminate or minimize the effect of the rebuttals?
- How certain may we be of the soundness of the claim when we consider rebuttals and backing? In other words, what kind of qualification is called for?

Activity: Apply the Model to Your Own Paper-in-Progress

This activity plays a large role in our seminars. We have developed the following rubric, which we ask students to fill in with answers relating to their own papers-in-progress. If they are able to fill in all the slots and find that the elements are in reasonable balance, then the paper is probably on the right course. We find that this rubric has a capacity to get many students going. Some realize that they have a great deal more material in the right places than they thought, while others are confronted with holes that should be filled, or with a claim that needs modification, etc.

Questions on the overall argument in my paper. (Model examples, drawn from an archaeology paper, are given in *italics*.)

Claim: “What is my claim at this point in the writing process?”

Model example: *The ancient city of X has directly influenced the architecture of city Y. Hence, there must have been a migration from X to Y.*

My paper: ...

Data: “What will I use as data for this claim?”

Model example: *The bricks used in X and Y are identical to the millimetre.*

My paper: ...

Warrant: “What is my warrant (what method will I employ)?”

Model example: *Description of how I will proceed as to selection of samples, measurement, number of bricks selected, etc.*

My paper: ...

Rebuttal: “What may be said in rebuttal of this method (what makes it problematic)?”

Model example: *Only one parameter is used. The identity, rather than suggesting an influence, could be a coincidence.*

My paper: ...

Backing: “What supports the warrant (the use of this method), in spite of rebuttal(s)?”

Model example: *It is extremely unlikely that such a similarity could be a coincidence, hence an influence must have taken place: the bricks must come from the same mould.*

My paper: ...

Qualifier: “Given the rebuttal and backing cited above, I expect to make my claim with the following qualifier.”

Model example: *It is highly probable that a migration has taken place from X to Y, but...*

My paper: ...

In our experience, students benefit particularly from analysis and assessment of argumentation in model excerpts drawn from papers in the top third of the scale. In one and the same process, students are trained in applying the model, recognizing well-made academic argumentation, and making critical but constructive assessment of each other’s work. Thus, this

activity may be used in the early part of a course, and it may be a help even for novice writers of academic papers.

Special non-credit courses, featuring activities such as those described above, are not the only way to heighten students' awareness of the academic paper as a genre. In "content" courses, especially on the more advanced levels, there will be frequent opportunities to apply the model to heighten students' awareness of the demands of the genre.

For example, it is customary in such courses to include excerpts from scholarly books, papers from journals, etc., as required reading in coursepacks or the like. As a rule, such readings are discussed only for the content, i.e., the results, theories, or ideas that they present. However, the instructor may also make a point of discussing such readings with regard to how they relate to the argument model.

For example, in history courses where actual historical studies in the form of journal articles or book chapters are studied, it will be relevant to dwell on passages where the writers discuss the validity of their sources. Such passages, in which some of the key skills that constitute "historical method" are called for, usually represent the "warrant" category. The sources used are, of course, the data. The claim is the historical interpretation derived from the sources.

In papers reporting empirical studies, it will generally be easy to locate passages where the elements of the model are in evidence. Often there is a separate "Method" section, which will usually contain most of the "Warrant" material in the paper. The theory underpinning the study, i.e., the Backing, may often be found in the introductory section, and/or under the discussion of Method. The Claim may be found near the beginning in the form of a hypothesis, and in the "Discussion" section in the form of an actual claim. Often, the Discussion will also contain elements of Rebuttal, as well as material that may be identified as Qualifier. As an example, chosen at random, we may cite this passage from a journal article on advertising (McQuarrie and Mick 1999, p. 52). In the subsection "Limitations and Future Research" (under "General Discussion") we read:

We did not demonstrate that replacing, say, the visual pun in the almond ad with a verbal pun conveying the same brand attitude would, in turn, produce the same impact on consumer response. This limits our ability to assert that, for instance, a pun is a pun, whether visual or verbal, with the same characteristic impact.

A propos a discussion of the points the writers are trying to make about visual effects in advertising, the teacher may also point out to students that

such a passage constitutes a Qualifier, and that its presence (together with several others) increase the credibility of the article as a whole. If it is part of the course requirement to write a research paper, we think the teacher should go out of his way to point out that the use of appropriate qualifiers, like this one, is one of the criteria by which these papers will be graded.

More generally, in any content course there will be numerous opportunities for the teacher to make statements or initiate discussions on the functions and merits of specific passages in the course materials. This practice is a modern version of what ancient rhetoricians called *imitatio*: we read important writers not just in order to learn what they have to say, but also in order to learn from them how to say what *we* have to say.

An important part of this kind of reading is to be as critical as we are when reading papers or drafts by our peers. Here, too, the teacher will probably have to show the way. Statements by the teacher like: “This is an interesting study, but I think part of the data is irrelevant, and the writer ought to have discussed the following obvious objection to his method ...” may be eye-opening to students. They will realize that published research by esteemed scholars is not necessarily beyond reproach; that the merits of such research is not a black-or-white matter, but one in which there may be pros and cons; and that the criteria the teacher will apply in assessing the students’ own papers include these, by which he finds others to fall short.

Even when only textbooks are being used (as opposed to actual research papers), it is still possible for the teacher to make observations like this: “What the textbook does here is something you should never try to do in a research paper. These are two different genres. It carefully introduces and explains Habermas’s theory of the public sphere, but does not supply backing for its application to talk shows on TV; in your paper it should be the other way around.”

To sum up, we suggest that there is indeed a use for the Toulmin model, despite much frustration with it in the teaching of general argument analysis among faculty and students alike. Coming as it does from a philosopher and ex-scientist, it is perhaps not surprising that more than anything it models the ideal case of *academic* argument. Moreover, we suggest that its real usefulness is only brought out when we give up applying Toulmin’s labels microscopically to individual sentences and phrases in existing texts—and turn it upside down, as a tool for searching a text top down for material representing each of the categories. Finally, what we propose is using the model as an aid in production rather than in analysis, i.e., as a set of criteria to guide the tentative unfolding of a paper-in-progress. What it does in that

capacity, judging by the responses of the hundreds of students who have attended our non-credit seminars, is to furnish them with an understanding of the academic paper as one kind of purpose-driven speech act.

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