

A good paper makes a case: Teaching academic writing the Macro-Toulmin way

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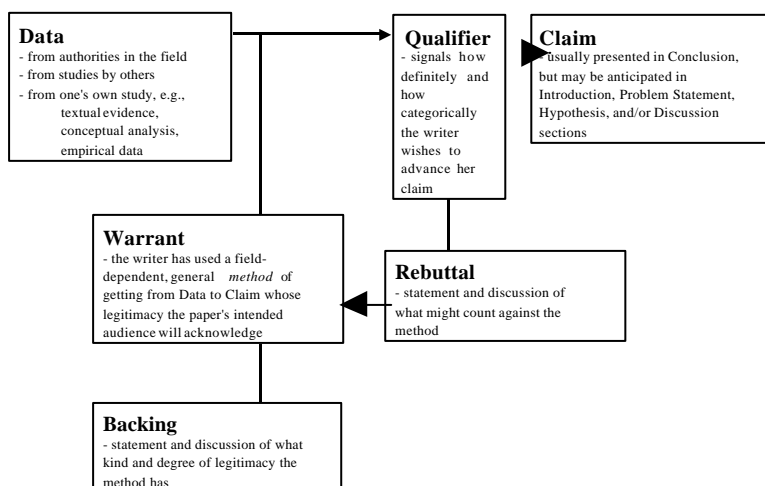
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Faculty all across departments, perhaps especially in the liberal arts subjects, have trouble teaching students what an academic paper is, and how to write it. Central to the problem is students' difficulty in understanding the "task definition" of the genre (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 ability or the motivation to write good academic papers, but an understanding of the *genre* of academic discourse. 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.

We suggest that Toulmin's argument model (1958), in a particular interpretation, is a significant help in solving this problem. To argumentation scholars, there is nothing new in using the Toulmin model for pedagogical purposes; however, the point of this paper is that the model is particularly useful in teaching *academic* writing, whereas its use in *general* argumentation courses is, in our view, very debatable – a view also taken in Fulkerson's comprehensive discussion (1996). However, we contend that students' problems with genre and task definition in the writing of academic papers may be significantly reduced if we adapt the Toulmin model to explain to students 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 the academic paper *as a whole* can be better understood with this model."

What this means in practice is that the student is encouraged to apply the model as a criterion and 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 in it. This is the way the model has often been used in attempts to adapt it to the analysis of actual 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 boxes which constitute the model?" As a general rule we suggest that a "default" good academic paper contains material, which fulfils certain criteria by which it fits into each of the six boxes. The following graph will illustrate how.



As the figure shows, the **Claim** in a typical academic paper is something that will often be located in its conclusion. This feature, incidentally, is one that often annoys non-academic readers, who (rightly) expect to be told or at least warned 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 papers, 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 papers, perhaps most, the claim cannot be pinned down to 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 even are told 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; analysis is a tool, but the end is to make a point or a claim.

There are a 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 - a statement that is hers, not just a reiteration of statements made by one or several scholars she has studied.

The second box 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 prevent 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, as mentioned a moment ago, 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 so forth.

The **Warrant** box: 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 uses. Debaters in practical argument are generally not required to do so, and rarely do it - which is probably 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, 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 usually 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 and very strictly defined. 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

explains 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; it may also be a combination of traditional features, borrowed or adapted features, and new features. Codifying how to interpret data methods constitutes the bridge between data and claim, therefore *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) is 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, 103). That is, the “backing” box should contain something 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” 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, 101). The criterion that there has to be something in the rebuttal box means that the paper must show awareness of what counts against allowing the step from data to claim. Hence the rebuttal box is connected to the warrant box; 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 box, as mentioned above.

Rebuttal may take many forms, according to field. On a very general level, a specific study might lead into 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, that 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 boxes with Backing and Rebuttal may contain more or less material. The extreme 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. 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 this model may not only help students understand the task definition of that problematic genre, the academic paper, but 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 checking material already in the draft, as well as a heuristic for finding material still missing - by asking, “What have I got in this draft to fit into each of these boxes?” 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 be 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 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 legitimises or even prescribes a certain methodological choice; this again may help them how to 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 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 taller 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), legitimised (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. Such students may benefit from seeing how theories may function in an overall argumentative plan; they may realise that theories matter to method, both as legitimisation 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 the student by heightening his or her awareness of the uses of meta-discourse to signal the overall plan of their paper. As noted by, among others, Prosser & Webb (1994), the presence of meaningful meta-discourse 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, 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 a case for 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 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. Freewrite for 8-10 minutes on "the essence of my papers is ..."
2. Boil the essence of your paper down 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 "What 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 paper-in-progress. If they are able to fill 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 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

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 a well-made academic case, 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 a certain number of scholarly studies, papers from journals, etc., as required reading in course packets, etc. 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 make a point of discussing such readings also from the point of view of 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 used, 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 belong in the "warrant" box of the model. 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. The Discussion will also often 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.

Alongside a discussion of the merits points that the writers are trying to make about visual effects in advertising, it is also worth pointing out to students that such a passage constitutes a Qualifier according to the model, and that its presence (together with several others) help lend credibility to the article as a whole. In so far as it is a 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 scholarly reading 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 have our own say.

An important part of such 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. An example of how to do this might a statement like the following: "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 ...". Such an approach to the research literature used in a course may be eye-opening to students.

They will realize that published research by esteemed professors 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 teachers will be looking at in assessing students' own papers include these, by which he finds others to fall short.

Even when only textbooks are being used (not actual research papers), it is still possible for the teacher to make observations like, for instance: "What the textbook writer does here is something you should never try to do in a research paper. These are two different genres. He carefully introduces and explains Habermas' 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 turns it upside down, as a tool for searching a text from the top down for material answering each of the labels. Finally, what we propose is using the model as an aid in production rather than analysis, i.e., 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 purpose-driven act.

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Our data:

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