Writing instructors who teach argument are familiar with the dilemma of conflicting metaphors: those who teach writing with a process approach may structure their teaching through a growth or benevolent nature metaphor, but cannot deny the tenacity of the "argument as war" metaphor. Breaking this war metaphor requires that ethics become a major consideration in teaching written argument. Stephen Toulmin's model of argument provides an alternative to Rogerian persuasion for achieving an ethical dimension in argument instruction and to classical deductive argument. A Toulmin structure, at the college level, demands a minimum of four parts: data, warrant, backing, and claim. Toulmin's model suggests that facts are constrained by the context of their field or discipline, and that one must first determine the argument field and its corresponding warrants and backing (the reasons why some facts are considered and others are not), before one can arrive at facts, or salient data. In addition to learning the Toulmin model, students must be involved in the evaluation and sorting of data into fields. Students can use this model of analysis to read and respond to arguments written by peers. Thus the act of arguing, rather than forming around the war metaphor, can form around a garden metaphor—cycles, growth, fertilization, flowering, seeding, and weeding. (An illustration of the Toulmin model is included.) (HTH)
TOULMIN AND THE ETHICS OF ARGUMENT FIELDS

Teaching Writing and Argument

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
George Lakoff and Mark Johnson begin their work *Metaphors We Live By* (1980) with a description of

... what it means for a metaphorical concept, namely, ARGUMENT IS WAR, to structure what we do and how we understand what we are doing when we argue. The essence of metaphor is understanding and experiencing one kind of thing in terms of another. It is not that arguments are a subspecies of war. Arguments and wars are different kinds of things -- verbal discourse and armed conflict -- and the actions performed are different kinds of actions. But ARGUMENT is partially structured, understood, performed and talked about in terms of war. ... Moreover, this is the ordinary way of having an argument and talking about one. (5)
For writing instructors who are involved in the teaching of argument, particularly those who recognize and articulate their profession within a traditional of the humanities, the dilemma is one of conflicting metaphors. On one hand, those of us who teach writing through a process approach may structure our teaching through a growth or benevolent nature metaphor. On the other hand, we cannot deny the tenacity of the argument as war metaphor. We need only listen to our own voices and those of our students in the argumentative writing classroom:

If you don't provide adequate support, your argument will fall.
Your strategy should provide an excellent defense.
Your line of attack should include better evidence.

Our students are often more to the point:

If he uses that study, I'll blow him away.
When she uses Hart's article, I'll just bring in my big gun authorities.
We'll shoot him down if he tries that approach.

Lakoff and Johnson suggest that these metaphoric concepts are a major component of how human beings structure and understand their experience, making the argument as war metaphor even more pervasive.
To break the war metaphor suggests that ethics must become a major consideration in teaching written argument. Analysis of Rogerian persuasion is certainly one way of turning argument to a more ethical dimension. I would like to suggest to you that Stephen Toulmin's model of argument provides another way of doing so.

Many composition scholars have adopted Toulmin's model of argument as a reasonable rhetoric alternative to the teaching of classical syllogistic deduction. My own experience with syllogisms and writing students was only sometimes successful. My students did understand all the elaborate formalisms, but when the time came to write a paper based on deduction, something was missing. The world view that syllogistic logic encompasses encircled my students as well. Classical deduction presumes an acceptance of a single, objective truth, precluding much discussion about how that major premise came to be viewed as truth. My students furiously resisted the concept that a syllogism could be valid without being true. Moreover, great chasms opened up in my students' papers. If I had a student arguing that "voluntary prayer in the schools is constitutionally acceptable" as a major premise, followed by "a moment of silence is a form of voluntary prayer" as a minor premise, that student might write a paper with what amounted to two separate, unrelated sections. The first section would trace the legal history of voluntary prayer in this country, the second would trace the history of moments of silence, and the two might never connect in the appropriate categorical fashion. The form dictated the substance and content of the paper, not the student's own
sense of the weight of the argument. Instead, the student had "might and right" on her side, the compelling force of the obligatory deductive conclusion derived from two valid premises, never having to consider "truth" once a workable syllogism was found. The student often will not consider counter-arguments, alternative syllogisms, once her own syllogism was in place.

Ralph Johnson, evaluating textbook approaches to non-formal argument, in *Teaching Philosophy*, confirms our sister discipline's concern with the same issue. After substantial critiques of philosophy's array of textbook approaches, Johnson nevertheless concludes in favor of non-formal argument analysis.

Logicians, as a breed, are not markedly different from other teachers. We teach as we were taught--at least until experience forces us to change. Most of us were taught in graduate school the elements of formal logic. When we found ourselves in front of a classroom full of students, we did what we had been trained to do. For reasons too numerous to mention here, it didn't work. It didn't satisfy . . . . All of this activity falls under the rubric of breaking the spell cast by formal logic, freeing ourselves from the bondage to it, and helping informal logic along into the mainstream of logical inquiry. I am convinced that we will all be better off as a result: our students, our colleagues, the general public. (142)
Though Johnson does not consider Toulmin directly in this article, his analysis of the failure of formal logic to connect with our students supports a movement to informal logic in the writing classroom. When formal logic is encompassed by the structuring war metaphor, our failure as humanists is even more complete. Taught alone, as the "right," "best," or "most intellectually demanding" approach to argument, we teach in formal logic, by implication, that there is one "right" answer, one truth, one valid approach. We foreclose the other options allowing our students to ignore the reasoning and values that lead to other non-formal arguments and conclusions. Comprehending and producing arguments in the real world has much to do with being able to envision underlying assumptions, the criteria Johnson calls "supplying missing premises" (137), and little to do with mastering the given categorical syllogism.

In short we foreclose our students' growth. If William Perry (1972) accurately describes our arriving male college students, then we stall the necessary insights for movement from dualism to relativism. How? By providing the right answer through formal logic, we allow our students' dualism to remain unchallenged and the views of others to remain unknown. If Carol Gilligan (1982) is correct about our women students' development, then we provide a too easy solution to the problems of how value self within a community, a critical stage for further ethical development. Why? Because when we offer a structure to preclude further consideration of the issue, we close another door of opportunity. Academically, we may also stall growth,
by pretending when we teach formal logic that we have all the right answers, our certain and valid conclusions, allowing that product model we exorcised out of beginning composition back in the door for a higher level writing class.

Toulmin's approach does suggest a reasonable alternative to classical deductive argument. And we should explore that alternative. I have included a diagram (Figure 1) in which the basic model is demonstrated. A Toulmin structure, at the college level, demands a minimum of four parts, data, warrant, backing and claim. The claim is the part which the arguer seeks to prove, in this case that "John was at fault in this automobile accident." The data is simply the evidence, in this case, that Marg had the right-of-way, confirmed by two witnesses, that there were no tire marks, that John appeared to be intoxicated by his weaving walk, his slurred speech and flushed face, that the police officer on the scene required John to take a blood test and that the blood test indicated a blood alcohol level of .13. Warrant is the third dimension of the model, and the key element of difference from ethical perspective. How do we view that data? how do we put it together? The warrant becomes the frame through which the data is viewed. As Toulmin states, "warrants are hypothetical bridge-like statements" (105). The warrant here is "Since an intoxicated driver will generally be presumed to be at fault in an accident" and the backing for such a warrant is the Code of the State of Indiana, with statutes on fault in accidents, and those defining intoxication at .10 as drunk driving.
What is intriguing about the Toulmin model, however, is that if you change the argument field from which the backing and warrant arise, you change the data available to support the claim. In the case of the accident, an entirely different filter operates when the claim is medical, even though the incident itself is the same. Unfortunately, though, the concept of the argument field has received but little attention from most composition researchers. Its most apparent application would be in those writing courses in which students are reading and writing among several disciplines. Its other application, perhaps most important, however, is in its ethical dimension. As we will see, Toulmin suggests that criteria for evaluation of arguments will vary from field to field. He says:

... the criteria or sorts of ground required to justify such a conclusion vary from field to field. In any field, the conclusions that "cannot" be the case are those we are required to rule out. (36)

Toulmin further suggests that through the examination of field-dependent criteria that we may eventually arrive at field-invariant criteria for all disciplines, all claims in all areas. But until we have carefully examined the form, structure and differences among fields, we may have trouble imposing outside structural evaluations. Toulmin further develops the concept of intellectual disciplines and their development in his work, Human
Understanding (1972). Here, the conception of argument field is developed in relation to intellectual disciplines.

Toulmin defines a discipline, a field, if you will, even a near-discipline, at least partially by its agreement on common goals and conceptions of its purpose. Why then should the teaching of this particular model, applied to academic disciplines, enhance students' toleration? After all, we demonstrate through a preliminary analysis that the individual disciplines have their own coherence of thought, and, thus, formal logic could be expected to apply. Toulmin makes two distinctions in Human Understanding that clarify this apparent problem. First, not all disciplines are, as he called it "compact," those disciplines of the natural sciences in which goals and conceptions are agreed upon and explicitly known and discussed. We must thus reason that apart from these narrowly defined "hard" sciences other disciplines may require informal logic. Toulmin also suggests that the social sciences do not have the necessary compactness. Subdisciplines and subspecialties, each with separate warrants and backing, are, he posits, far more likely outside of natural science. Second, Toulmin also suggests there is a qualitative change in the dimension of the argument when ethical questions enter.

In any culture and generation men [and women] acknowledge the authority of a dozen inherited approaches to ethical questions. Each of these approaches has its own rubric--"as a matter of self respect/morality/loyalty/etiquette/integrity/equity/religious commitment/simple humanity . . ."--and each defines a particular
set of issues, considerations, and modes of argument. In any chosen culture and generation, furthermore, men [and women] do not merely continue applying all these different considerations and arguments in exactly the same way as their forefathers; they also attempt to refine their application, and to reorder their relative priorities, in light of the changing needs and conditions of life. (410)

How we best prepare our students to enter argument ethically, "the multivalued character of concrete ethical issues" (410), is through learning to use Toulmin's model as a tool of analysis of discipline-oriented issues, to come to know why and how a member of a discipline, a resident of a field, arrived where he or she did. A fact then is not just a fact. A fact is constrained by its context, its designated field. What facts are considered in determining a legal case are not necessarily the same to be considered in a medical case. What a linguist considers to be a fact of language an English teacher might reject. When a sociologist looks at families at risk, she sees a group with defined characteristics; when the psychologist looks at a family-at-risk, he sees a problem to be resolved. What happened to facts? Egon Guba and Yvonne Lincoln, writing in Naturalistic Inquiry (1985) on the theory-ladenness of facts, "that is, the apparent impossibility of having 'facts' that are not themselves theory-determined (26). Are we thus prevented from evaluating arguments, then? Toulmin's model suggests the answer is no, but we must first determine the argument field and its corresponding warrants and backing, before we have facts, or salient data.
This negotiability of facts and data between disciplines leaves an opening for developing our students' consciousness of the differences among the disciplines and the "backing," the reasons why some facts are considered and others are not. Rarely do our students receive explicit instruction in the philosophical backing of a discipline. The very idea may seem ridiculous in the late high school or early college years. History is history; those who aren't included weren't important is typical analysis. The rules of English grammar have always been the rules of English grammar is another typical analysis. Our students' perceptions of fields remain at the right and wrong, dualistic level.

When teaching argument and research, we have the opportunity to make these differences in analysis by field part of our students' analytical tools. Moreover, this expansion in their repertoire also leads to a greater tolerance for multiple perspectives on a topic. They may not be so quick to reject a point of view as "wrong" if they first must examine the view from the backing of the argument field from which the view comes. Further, as Charles Kneupper suggests, "people are participants in multiple fields," thus, our students also have this aspect, a field grounding their knowledge. Our students may have already declared an academic field, but they are also participants in religious, political, sports, and avocational fields. Kneupper elaborates by stating:
Such a person may not advance the knowledge in any of these fields, but will still utilize the knowledge and constructs provided by these fields. Further, such a person may gradually increase in personal knowledge as he or she gains more experience in, more constructs from, a fuller comprehension of each of these fields. Fields focus upon, capture and emphasize some limited aspect or feature of human experience in the world. They enable and expedite common understanding and problem solving within that sphere. (83)

In the teaching of argumentative writing where the conflict of value systems may be explicit, we may use that surfacing of the ethical systems, the value systems behind fields of inquiry, to expand our students' world knowledge and most importantly to increase tolerance for the views of others.

So how do we teach a Toulmin model? As you might guess, I find that presenting the structure alone is not effective. The students must be involved in the evaluation and sorting of data into fields; this is a necessary first step. What I hope to simulate with in my own teaching is that experience of sorting information. I have also included a handout I use in my argumentation class (Appendix A), in which my students are asked to consider the topic of language and gender. The data list comes from two sources: student discussions about sex difference in language and from Thorne and Henley's collection of research, *Language and Sex: Difference and Dominance*
Students work both individually and as a collaborative group to arrange this information into an appropriate set for a particular argument field, for warrant and backing and for a claim. Their final task, in this exercise, is to generate additional personal data pertaining to the topic and claim selected. Each group selects a reporter to give results to the workshop. The entire class then discusses the results each group has reached. This is a process repeated several times, and it is this process that allows the multiple perspectives to become evident to students.

A reasonable question at this point is in asking what all this has to do with writing. I have been describing a model of analysis, not a model of structure for the actual text produced by student writers. It is that process of analysis, through Toulmin, that links so appropriately to the collaborative writing classroom. What better way to discover real world argument fields and warrants than through the reading and responding to our peers' work, creating in the classroom what we do as a part of our professional lives -- responding to each other's arguments, warrants and data.

Let me offer an example of this process from one of my own students last year. The particular student in question was male, early twenties, a very articulate conservative. His rejection of socialist or Marxist analysis of historical events was so strong as to preclude his use of some of the typical analytical tools of his field, history. In a previous history class, this student attempted to analyze the situation he posits in his paper: that the Russian officer
corps was in part responsible for the Russian Revolution of 1917. What had precluded his previous success was that he did not want to use social or economic analysis to clarify the historical context, feeling that to do so would violate his personal conservatism. Two aspects of the argumentative writing class using Toulmin came into play. First, his fellow history majors in class read his work, commenting on how his analysis differed from theirs, correctly identifying the lack of a warrant in his work allowing him to use social and economic factors. Second, his use of Toulmin, to study his own intended field, allowed him to see that social and economic context provided him the necessary warrant to make his case, this time successfully. Although his achievement is perhaps beyond the normal progression of his classmates, he is not atypical. He no longer believes his professor was critiquing him on the basis of his politics and he knows how to warrant his own arguments from his home field. He had taken a first step toward toleration, my claim for the benefits of using this approach.

Finally, rather than structuring our conception of argument through the war metaphor, let us use the garden metaphor. The act of arguing can then form around cycles, growth, fertilizing, flowering, seeding, and weeding. With the garden metaphor, our students' authorities can be clothed as mature people, those who generate new cycles of growth, flowering, and bearing seeds rather than big guns who can be used to shoot others down. Disagreements no longer need to be battlefield sites; sites may be fields where ecological balance may
be achieved. The dark side of the metaphor—the stark, ashen, lifeless places of battle— is sterile. Battlefields have their brief moment of glory in time; gardens may be timeless.


Data:
Marg had the right-of-way
Two witnesses saw the accident.
No brake-tire marks on pavement.
Marg was unconscious.
John's speech was slurred.
John's walk was uncertain and his face was flushed.
The police officer required John to take a blood test.
John's blood alcohol level was .13.
Marg was bleeding around her face and her right leg was twisted in an unnatural position.
Witnesses estimated John's speed at 50 mph.

Claim 1: John caused the accident.
Claim 2: Marg was seriously hurt.

Argument Field Claim #1: Law
Argument Field Claim #2: Medicine

Warrant 1: Since an intoxicated driver is generally presumed to be at fault in an accident...
Warrant 2: Since the impact of a 2000 lb auto moving at 50 mph on a human will generally cause serious injury...

Backing 1: Indiana Code: drunk driving at .10 blood alcohol and common law doctrine of negligence per se
Backing 2: Emergency medical records at Wishard Hospital in Indianapolis, Indiana indicate this type of collision will result in serious condition.
APPENDIX A
TOULMIN MODEL EXERCISE

DIRECTIONS: You are to examine the information given here and sort it into a claim, the data supporting that claim and the warrants that allow you to view the data in support of your claim and a designated argument field. Please notice: for the purposes of this exercise, warrants and backing will be merged. You will use only one claim, and as much of the data and warrants as you need. You will need to designate a single argument field as well. Finally, each person should generate more data, based on personal experience and knowledge, to support the claim and warrants chosen. One effective start may be for you to examine the list of data and try to assign it to argument fields. Collaboratively, you should discuss your construction of the claims and examine any differences you find. A reporter for each group should record this process and will report back to the group as a whole.

DATA

Jesperson cites proof from literature to support his discussion of the way women frequently leave sentences, particularly exclamatory sentences, unfinished.

Lakoff (1973) thinks women do use tag-question formation more than men. A tag, in Lakoff's words is "midway between an outright statement and a yes-no question: it is less assertive than the former, but more confident
than the latter." It is used when the speaker does not have full confidence in his or her statement. Instead of a firm declaration, the speaker asks for confirmation, and by being less decisive, the speaker leaves himself or herself an out.

Until 1973, Indiana statutes making reference to police or fire pensions for surviving "widows" were deemed inapplicable to the widowers of policewomen or female fire fighters. A statutory change was necessary to include widowers.

Most reply cards in popular magazines indicate women should check Ms. or Mrs.*

Old English had an indefinite personal singular pronoun available for agreement with other indefinite pronouns. Modern English does not have such a vehicle.*

Jesperson also states that women can answer and talk more quickly because their vocabulary is more limited and more central -- that is, women share a common vocabulary while men show more individuality in word choice.

As early as the age of six, speakers of English may be identified as male or female, without the vocal quality of puberty, by listeners who could not see the speaker. Sachs (1975) suggests that at least part of the reason that boys and girls sound different is that they have learned to use the voice and speech style that is viewed as appropriate for their sex in the culture.

Men's voices are more authoritative, thus making them more appropriate to broadcast serious news stories on radio or television.*

Women's voices are shrill and too high.*

In cross-sex two-party conversations, males interrupted females 96% of the time, while females interrupted males only 4% of the time. . . . Here we are dealing with a class of speakers, females, whose rights to speak appear to be casually infringed upon by males.

The cross-sex two-party conversation in which the most interruptions took place was between a female teaching assistant and a male undergraduate student.

Norway, Turkey and the proponents of Esperanto all exemplify the limited probability that conscious language change, by government or by individuals, will be successful. After 70 years of government promotion in Ireland, Gaelic is spoken by only 10% of the population.*

Supporters of the equal rights amendment contend one reason why such an
amendment is necessary is that US law written in the generic "he" has not been consistently applied to women.*

Sex as a suspicious discrimination category is viewed by the law as only middle range. Race, on the other hand, demands the highest, closest examination.*

The meaning of the indefinite pronoun more often includes both genders or either gender, not one or the other. In such cases, we traditionally use he to refer to the indefinite antecedent. (Little Brown Handbook, 1980)

James Kilpatrick, William Buckley, Jeffrey Hart and others assert the term "chairperson" and other gender-free classifications are spoiling the English language. Considered even worse is the term "chair."*

Psycholinguistic studies on text processing demonstrate people perceive the generic "he" as definitely masculine until other evidence within the text demonstrates a particular female application. Females are the marked case, the exception, not the universal.

Stanley examined words for promiscuity for both males and females. She found 220 terms for sexually promiscuous women, and relatively few, 22, for men.

Nilsen found three patterns by examining dictionaries for gender difference: 1) a woman's body is important; a man's mind is important; 2) women are characterized in comparison to passive objects (a peach, a pet, etc.); 3) masculinity has strong culturally positive connotations, while the feminine has the trivial or negative connotations.

* Data entries with asterisks were provided by students in class discussion. All other entries, unless specifically noted, are from the research collection edited by Barrie Thorne and Nancy Henley, Language and Sex: Difference and Dominance, Rowley, Massachusetts, Newberry Publishing, 1975.
POSSIBLE CLAIMS:

The English language merely reflects the social structure of the culture in which it exists.

The use of the pronoun "he" is not sexist; it is merely generic reference to either sex.

Language change is dangerous and degenerative.

We should consciously eliminate sexist language.

Men and women use the English language in different ways.

The use of correct, traditional English denotes a competent, educated speaker.

The English language shows evidence of male social dominance.

Conscious language change is impossible.

Other claims you believe the data may generate:
WARRANTS AND ARGUMENT FIELDS:

**Linguistics as argument field**

Language change is inevitable but not conscious.

Data is either empirical -- gathered from native speakers and verified by objective tests -- or rational -- gathered and reflected upon by an expert native speaker. In either case, real native speakers are the primary source of data.

Language and culture are related.

The study of language should be "what is" as opposed to "what should."

**English Education as argument field:**

The primary purpose of English instruction is to transmit the heritage of literacy and literature.

A secondary goal may be to increase understanding of the human experience through reading.

Traditional grammar instruction, at the very least, prepares students for the expectations they will face in further education and on the job. At the most, traditional grammar provides an accurate understanding of the structure of the English language at this time.

Students' knowledge of prestige English is socially valuable.

**Feminism as argument field:**

Systematic change is necessary to provide women with equality.

Male dominance should be rejected in most situations.

Conscious change of systems is possible.

**Sociology as argument field:**

Data is for the group and collected by empirical standards. The data from a single individual is irrelevant without the relation to the group as a whole.

Educational attainment is one measure of social status in this society.

Women in this country, even after women have entered the labor markets,
are still primarily the kinkeepers and child caretakers. Men are still more powerful, that is, socially powerful as well as earning more money at every level of educational attainment.

Group standards of behavior may reflect dominance and power patterns of a society.

Hesitation, deference and uncertainty are perceived negatively in this society.

Language Conservation as argument field:

The English language is what appears in grammar handbooks.

Language change is a degeneration.

Literature provides an accurate reflection of actual language use.