

Toulmin's "Analytic Arguments"

BEN HAMBY

McMaster University
1280 Main Street West
Hamilton, ON,
L8S 4K1
hambyb@univmail.cis.mcmaster.ca

Abstract: Toulmin's formulation of "analytic arguments" in his 1958 book, *The Uses of Argument*, is problematic. Neither Toulmin's "tautology test" nor his "verification test" straightforwardly indicates whether an argument is analytic or not. Since these tests supposedly illustrate how we can recognize analytic arguments, Toulmin's notion of analytic arguments and his distinction between analytic and substantial arguments is unclear. What Toulmin's distinction amounts to is an injunction to pay more attention to the criteria that make for cogent arguments, with their field-dependent inference warrants and backings, and less attention to categorical syllogisms, with their deductive entailments expressed in ideal language. While this is a worthwhile project, we need not adopt Toulmin's confusing formulation of analytic and substantial arguments to take it seriously.

Résumé: La formulation de Toulmin des "arguments analytiques" dans son livre de 1958, *The Uses of Argument*, est problématique. Ni son "épreuve de tautologie" et ni son "épreuve de vérification" indiquent de façon nette et précise si un argument est analytique ou non. Puisque ces épreuves sont censées illustrer la façon dont nous pouvons reconnaître les arguments analytiques, la notion de Toulmin d'arguments analytiques et sa distinction entre les arguments analytiques et substantiels n'est pas claire. Cette distinction équivaut à une injonction de payer plus attention aux arguments ampliatifs et moins attention aux arguments explicatifs, avec leurs inférences déductives. Bien que ce soit un projet intéressant, nous pouvons le prendre au sérieux sans être obligés d'adopter la formulation déroutante d'arguments analytiques et substantiels.

Keywords: Analytic argument, Freeman, quasi-syllogism, substantial argument, tautology, Toulmin, uses of argument verification.

1. Introduction

In his classic book, *The Uses of Argument* (1958/2003)¹, Stephen E. Toulmin offers the following two formulations of what he calls "analytic arguments":

¹ All references are to the 2003 updated edition.
© Ben Hamby. *Informal Logic*, Vol. 32, No. 1 (2012), pp. 116-131.

An argument from D [data] to C [conclusion] will be called analytic if and only if the backing for the warrant authorizing it includes, explicitly or implicitly, the information conveyed in the conclusion itself. (116)

We shall therefore class an argument as analytic if, and only if, it satisfies that criterion—if, that is, checking the backing of the warrant involves *ipso facto* checking the truth or falsity of the conclusion—and we shall do this whether a knowledge of the full backing would in fact verify the conclusion or falsify it. (123)

In this paper I argue that these two formulations, and Toulmin's accompanying illustrations of them, are unilluminating with respect to demarcating his notion of analytic arguments. As such, I claim that, according to Toulmin's explicit formulation, it is not clear just what an analytic argument is. I suggest that the value of Toulmin's distinction between analytic and substantial arguments amounts to the distinction between deductively valid arguments, especially of categorical form, and the many different kinds of non-deductively valid arguments found in field-dependent discourse. The lesson I take from Toulmin is that when we include in our arguments the backings for our field dependent inference licenses, our reasoning seldom fits a categorical model such that the truth of the conclusion is necessitated by the truth of the premises. I find that the letter of Toulmin's distinction between analytic and substantial arguments should be deemphasized in favor of the spirit of this more broadly applied distinction, which de-emphasizes a formal analysis of considerations of validity, and emphasizes an analysis of the plurality of ways arguments can go right non-deductively.

I will proceed as follows: first, I will explicate and evaluate Toulmin's "tautology test" for analytic arguments, showing that Toulmin inconsistently offers it as being un-authoritative, and indicating the confusing way formal validity is (or is not) tied up with this first test for analyticity; I argue that the tautology test does not help us to identify analytic arguments, as Toulmin claims it does.

Second, I will explicate and evaluate Toulmin's "verification test" for analytic arguments, showing that Toulmin inconsistently offers this formulation as being authoritative. I argue that like the tautology test, it also does not always help us to identify analytic arguments.

Finally, I will offer a summary of and response to Freeman's insightful comments on my interpretation (private correspondence, 2010). While Freeman's proposed interpretation of Toulmin's formulation of analytic arguments via the tautology test is interesting, I am reluctant to embrace it as a serious clari-

fication of Toulmin's concept of analytic arguments, as at best it only redeems the tautology test. Furthermore, I find that even if one accepts Freeman's interpretation, Toulmin's formulation of analytic arguments still suffers from a debilitating lack of clarity when one considers the verification test.

My conclusion is that when appealing to Toulmin's 1958/2003 articulation of analytic arguments, and the analytic-substantial distinction, we should conclude that it is problematically opaque. We should therefore put aside Toulmin's conception of analytic and substantial arguments, barring a more perspicacious interpretation of what these terms signify, and instead focus on the more interesting theoretical endeavor of determining criteria for the cogency of non-deductive arguments in field-dependent contexts. This leaves room for analysis of the plurality of ways arguments can be strong, without their conclusions being entailed: surely the kind of analysis Toulmin envisioned when he implored us to pay attention to the many substantive *uses* of argument in field-dependent contexts.

2. The tautology test

Toulmin's first attempt at articulating the conditions that demarcate analytic arguments comes in the section "Analytic and Substantial Arguments," from pages 114-118. It is in these first formulations that Toulmin immediately sets the reader up for confusion, because his initial presentation of analytic arguments in terms of the tautology test seems to cast it, at least in part, in terms of formal validity. This is confusing because he later (e.g., 118, 125, 132, and 134) claims that formal validity does *not* distinguish analytic arguments from substantial ones.

I begin with Toulmin's statement on page 114 that even though "as a general rule" only arguments of the form "data, warrant, so conclusion" may be set out in a formally valid way, whereas arguments of the form "data, backing for warrant, so conclusion" may never be set out in a formally valid way, there is still "one special class of arguments which at first sight appears to break this general rule": analytic arguments, according to Toulmin's initial conceptualization, are a special class of argument that "can be stated in a formally valid manner" (115), even when the argument is articulated as "data, backing, so conclusion." Toulmin illustrates:

Anne is one of Jack's sisters;
Each one of Jack's sisters has (been checked individually
to have) red hair;
So, Anne has red hair.

The second statement of this argument is the backing for the warrant, and is obtained by starting with what would have been the traditionally termed "major premise" of a syllogistic argument: "All Jack's sisters have red hair." When this statement is "expanded" (cf. 91, 101, 102, 104, 108, 110, 115, 116), we can, according to Toulmin, eliminate the ambiguity as to whether it is a factual piece of data or a generalized rule expressing an (in this case, implied) inference license, choosing to phrase it as the latter, what Toulmin calls a "warrant": "Any sister of Jack's will (i.e., may be taken to) have red hair." Then by a further act of expansion, providing the "authorization" for the warrant in an explicit articulation of why it should be accepted as a legitimate inference license, Toulmin generates a statement of "backing": "Each one of Jack's sisters has (been checked individually to have) red hair." Here is the second statement in the argument above, the argument that has the form "data, backing, so conclusion" (115).

Toulmin claims that this is the kind of argument that breaks the general rule (he says) of formally valid arguments only being able to be expressed in the form "data, warrant, so conclusion." Here, Toulmin claims, is an argument that goes "data, backing, so conclusion," and that, exceptionally, is also formally valid; thus, according to Toulmin's first-stab formulation, it is an analytic argument.

But as mentioned above, Toulmin does not want to define analyticity according to the formally valid layout of a "*D*; *B*; so *C*" argument. He goes on to say that the argument above is analytic because "if we string datum, backing, and conclusion together to form a single sentence, we end up with an actual tautology." However, Toulmin implies on page 115 that an argument passing the tautology test will thereby have its formal validity indicated, when he claims that "when we end up with an actual tautology . . . [we find that] not only the (*D*; *W*; so *C*) argument but also the (*D*; *B*; so *C*) argument can—it appears—be stated in a formally valid way." In this way he seems in his early formulation to explicitly tie analytic arguments to formal validity even while also implying otherwise, as when he provides the formulation on page 116 that does not mention formal validity: "an argument from *D* to *C* will be called analytic if and only if the backing for the warrant authorizing it includes, explicitly or implicitly, the information conveyed in the conclusion itself." Toulmin repeats this on page 116, qualifying it by saying it is "subject to some exceptions." and then reiterates that "we have to bring out the distinction between backing and warrant explicitly in any particular case if we are to be certain what sort of argument we are concerned with on that occasion." So Toulmin's

first formulation is that an analytic argument is one which, at least sometimes (1) when the backing of an implicit warrant is explicitly articulated (expanded) in the argument, then the argument is formally valid, as opposed to an argument with a warrant instead of backing; and (2) when all the statements of this expanded, formally valid argument are expressed in a single statement, then that statement is repetitive, i.e., tautologous.

3. Problems with the tautology test

We should remind ourselves that this test was meant as only a “provisional” formulation of analytic arguments, and Toulmin explicitly called it such (118), saying that it is not “true of all analytic arguments” (121), and that “when we look at quasi-syllogisms, we find the tautology test no longer applicable” (123).² But is the tautology test really just a first try at defining analytic arguments? Does Toulmin ever truly abandon it in favor of the verification test,³ or in favor of some other criteria? Does Toulmin retain the tautology test as a legitimate way to demarcate analytic arguments from substantial ones? These questions should not just be brushed aside, but it is not clear to me that they can be answered with any kind of consistency according to Toulmin’s book, because even though he offers the tautology test tentatively, and then explicitly rejects it as being an exhaustive condition for analyticity (which is confusing enough for the reader), he nevertheless refers to analytic arguments later via this conception: how then to reconcile Toulmin’s assertion on the one hand, that “in some cases at least, this criterion [the tautology test] fails to serve our purposes” (124), with his statement on the other hand, made fifteen pages later, that “[i]n the analytic syllogism, the conclusion *must* in the nature of the case repeat in other words something already *implicit* in the data and backing” (139, emphasis added)? These considerations make the concept of an analytic argument difficult to penetrate. Readers should be left wondering to what extent the tautology test is authoritative, and to what extent it is not, since Toulmin seems to say it is both.

Aside from the ambiguity as to whether and to what degree Toulmin endorses the tautology test as a way to indicate analytic arguments, what to my mind is odd in all this is that the

² Despite this repeated caveat of Toulmin’s, some early commentators gloss analytic arguments according to the tautology test, such as Manicas, 1966; Korner, 1959; and Cowan, 1964.

³ Those who think Toulmin deemphasized the tautology test in favor of the verification test include: Hardin, 1959; Cooley, 1960; Castañeda, 1960; Hitchcock and Verheij, 2006; and Bermejo-Luque, 2009.

argument Toulmin has set out as his example, with what would have been the major premise "expanded" to be phrased as the backing of the associated warrant, is not at all formally valid, as Toulmin tries to illustrate it should be in a *D, B, so C* argument that is analytic. Here is the expanded, supposedly formally valid, *D, B, so C* argument again:

Anne is one of Jack's sisters;
 Each one of Jack's sisters has (been checked individually
 to have) red hair;
 So, Anne has red hair.

But the truth of this conclusion is not formally entailed by the truth of the premises adduced in its support; the reason it is not is due to the parenthetical clause in the backing, which is an elemental aspect of the argument, as it is the expanded warrant that serves as backing. What if we adjust it to make it formally valid, and thus make it analytic, and thus render Toulmin's formulation consistent with his example? In order for the conclusion to follow formally (what Toulmin later will call "unequivocally"), the conclusion would have to read: "Anne has (been checked individually to have) red hair." Then the argument would read:

Anne is one of Jack's sisters;
 Each one of Jack's sisters has (been checked individually
 to have) red hair;
 So, Anne has (been checked individually to have) red hair.

But it would seem this is an illegitimate move, as retaining in the conclusion the parenthetical statement found in the backing changes the meaning of the conclusion: instead of being the claim that Anne has red hair, we have a claim that Anne has *been checked* to have red hair. We want to keep the conclusion as it is: a statement about Anne in fact having red hair right now. So, Toulmin says that if Anne was right in front of someone, and that person was right now looking at Anne's hair, and it appeared red to her, then the argument would be analytic:

Anne is one of Jack's sisters;
 Each one of Jack's sisters (it is now being observed, i.e., it
 now appears) has red hair;
 So, Anne has red hair.

In fact, Toulmin says this argument is "unquestionably analytic"; however, this version of it, with the modified parenthetical clause in the backing, suffers from the same problem as

the one with the unmodified parenthetical clause in the backing: It is only formally valid so long as the parenthetical clause in the backing is also included in the conclusion. The reason is that just because the color of someone's hair has been checked at one time, this does not mean it is now the color the person who first checked it saw it to be. Toulmin is right to see this as a shortcoming of the strength of the argument in question. He thinks of this as a "logical type jump," from backing concerning the past to a claim concerning the present, and proposes to fix the type jump to show the argument's analyticity by making the backing refer to a concurrent time as the conclusion.

But Toulmin does not address what actually makes it not analytic according to his own formulation, and that is its being a *D, B, so C* argument, yet also being formally invalid (remember that Toulmin said analytic arguments break the rule of *D, B, so C* arguments being formally invalid). Because it is also true that the person who is (right now) checking the hair might be color blind, or she might see blonde or brunette or every other color as red, or her senses could otherwise be distorted. So the strongest formally valid conclusion someone could draw from her observation of looking at Anne's hair, even if she is looking at it right now, is that Anne's hair right now appears red to her.

So, if we are being utterly candid, as Toulmin urges us to be, the revised argument would retain the parenthetical statement in the conclusion, and would be:

Anne is one of Jack's sisters;
 Each one of Jack's sisters (it is now being observed, i.e., it now appears) has red hair;
 So, Anne (it is now being observed, i.e., it now appears) has red hair.

Of course, no one usually looks at the color of someone's hair, and only allows herself to say that the hair she sees *appears* some color: usually, we uncontroversially believe someone's hair *is* some color based on our current perception, so long as no countervailing concerns intercede that might speak against that belief. So altering the conclusion this way seems illicit. Still, if formal validity is a condition of analyticity (so that an argument *D; B; so C* breaks the rule of not being formally valid as Toulmin says it should), then however believable is the claim in Toulmin's example that Anne has red hair, and however reliably it is reached via the backing, it would still not be "unquestionably analytic" (as Toulmin says it would be if Anne was standing right in front of someone) because even if she were standing right there, it would not be unquestionably formally valid without altering the conclusion by including the parenthetical clause.

Another way for the argument to be formally valid, instead of carrying over the parenthetical clause in the backing down to the conclusion and thus altering it, would be to omit the parenthetical clause from the premise and the conclusion altogether. Then either version of the argument (with or without the type-jump) would read:

Anne is one of Jack's sisters;
 Each one of Jack's sisters has red hair;
 So, Anne has red hair.

This argument is now formally valid. But without the parenthetical statement, we just have the major premise, unadulterated ("unexpanded" as Toulmin might have said). And so the argument above is just an unexpanded traditional syllogism. But Toulmin wanted to show how an argument could be formally valid (breaking the rule of *D, B, so C* arguments *not* being formally valid) when an expanded premise was articulated in the argument as backing (again, cf. 91, 101, 102, 104, 108, 110, 115, 116), that such an argument might also pass the tautology test, and that such an argument would therefore be analytic. So eliminating the parenthetical statement to gain formal validity just turns the argument back into a traditional syllogism, where according to Toulmin the unexpanded major premise is ambiguously phrased. Therefore this is not the kind of argument Toulmin would test for analyticity.

What I conclude as a result of these reflections is that either Toulmin's example is poor, in which case he has inaptly illustrated his conception of analytic arguments via *D, B, so C* arguments, or his conception of analytic arguments as he first formulated it is flawed. In either case, the concept of analytic arguments is not doing the job Toulmin purports it to do, which is to theoretically inform our understanding of his model of argument macrostructure. What Toulmin has shown in these examples is that his first articulation of analytic arguments does not hold, because from the beginning, his example does not "break the general rule," as he says it does, of an argument of the form "data, backing, so conclusion" being formally invalid. So instead of showing (as he suggests he has) that it is doubtful whether any arguments with an expanded major premise can ever be properly analytic, what he has shown is that we still don't know what properly speaking an argument's being analytic even means. This is especially telling when one considers that for the remainder of the book Toulmin uses the terms "analytic" and "substantial" as if he had established a clear conception of what those terms meant, even though he contemporaneously adapts their definitions while working with them. Far from

being a “candid” treatment, Toulmin’s distinction at first blush obscures more than it reveals.

To summarize what I think I have thus far established: according to his illustration, Toulmin was wrong to say that analytic arguments break the rule of “data, backing, so conclusion” arguments being formally invalid, since those expanded arguments are as they stand formally invalid: expanded arguments with backing in place of warrant do not yield formally valid arguments unless one modifies the statements in the arguments. This shows that expanded arguments are not analytic, but only if analyticity is just synonymous with formal validity, which Toulmin later claims is too crude a line to draw. These considerations are all made in light of the ambiguity as to whether Toulmin is consistent in his assertion that the tautology test is un-authoritative, which he explicitly maintains throughout his articulation of the verification test, but which he inconsistently implies is authoritative later in the book.

These reflections might be enough to show how unhelpful Toulmin’s concept of analytic arguments is, due to its opaque initial formulation via the tautology test, but problems are compounded when we look at Toulmin’s verification test, to which I now turn.

4. The verification test

As I mentioned at the beginning of the last section, Toulmin ostensibly introduces the tautology test only provisionally, and then seems to reject it in favor of the verification test (though he later seems to adopt the tautology test partially). Still, according to the verification test, an argument is “analytic if, and only if ... checking the backing of the warrant involves *ipso facto* checking the truth or falsity of the conclusion” (123).

I think I have shown that the tautology test should be rejected as a reliable indicator of analyticity because Toulmin’s example never fulfilled what he purported it to, namely, a method of identifying analytic arguments. While Toulmin thought the tautology test shows that expanded arguments are rarely analytic, what he actually showed was that expanded arguments are rarely formally valid. In any case Toulmin wants to reject the tautology test for different reasons: because, he says, it does not allow us to determine the analyticity of an argument that has a “quasi-syllogistic” form (121). A quasi-syllogism is like a traditional syllogism except that instead of its major premise being expressed categorically, that statement is expressed in a qualified way (*ibid.*).

Looking at the verification test by way of Toulmin's example of a quasi-syllogism, we find the following argument:

Petersen is a Swede;
 Scarcely any Swedes are Roman Catholic;
 So, almost certainly, Petersen is not a Roman Catholic.

According to Toulmin the (formal?) validity of this argument is "self-evident", so it should be classified as an analytic argument (122).⁴ Ignoring this further criterion of analyticity (the "self-evidence test") that seems to further complicate Toulmin's conditions for determining an argument's analyticity, if we interpret this argument's second statement as being ambiguous (which Toulmin claims we should do), then we can rephrase it to produce a generalized statement that allows us to infer the conclusion on the basis of the first statement; as an explicit warrant it might thus read: "If someone is Swedish then you may take it that he or she is not Roman Catholic." Then in a further act of expansion, if instead of an inference license, we state the backing that authorizes it, we get:

Petersen is a Swede;
 The proportion of Roman Catholic Swedes is less than 5%;
 So, almost certainly, Petersen is not a Roman Catholic.

Now this argument is analytic according to Toulmin as well, though not because its validity is self-evident, nor because it is tautological when the statements are strung together, and certainly not because it is formally valid. It is analytic, for Toulmin, because if we were to check the truth of the backing, we would in effect be checking the truth of the conclusion. In other words, checking (exhaustively) to see that the proportion of Roman Catholic Swedes is less than 5% would be to check if Petersen is or is not a Roman Catholic. As such, according to the verification test, this argument is analytic, whereas according to the tautology test, it is not.

⁴ This, according to Toulmin's third test for analyticity: the self-evidence test. This test further obscures matters, but I will pass over a discussion of it, as I believe that showing the inadequacy of the tautology and verification tests is sufficient to cast serious doubt on the perspicacity of Toulmin's distinction between analytic and substantial arguments.

5. Problems with the verification test

But there are a few problems with this test for analyticity as I see it. First, to take Cooley's (1960) criticism: the verification test seems to be too broad, because it would call any argument analytic where backing-checking involves conclusion-checking. But this will include many arguments that, in Toulmin's own words, are "not just implausible but incomprehensible" (122), such as Toulmin's example:

Petersen is a Swede;
The proportion of Roman Catholic Swedes is less than
5%;
So, almost certainly, Petersen *is* Roman Catholic.

Here is an implausible (and incoherent) argument. But it is *still* analytic, according to the verification test, as checking the truth of the backing would involve checking the truth of the conclusion. But if this argument is analytic, then surely that speaks against the thought that formal logicians are unduly enamored with the analytic paradigm, for (one would think) they would not want to be so attached to a model of argument that allows one to infer the opposite of what one would expect to, on the basis of the reasons one adduces. So, as with the tautology test, either the test is not authoritative, or formal logicians are not really focused on analytic arguments as he says they are.

Perhaps one could respond to Cooley by insisting that analyticity is a distinction made within the class of arguments that have good warrants and backings for those warrants, so this complaint would not hold (Hitchcock, private correspondence). But even if Cooley's objection can be handled in this way, then another problem with the verification test still remains: while some quasi-syllogisms that fail the tautology test might still be analytic by virtue of the verification test, it could also be the case that some quasi-syllogisms pass the tautology test, yet fail the verification test. If this is so, then passing the verification test is not only not a sufficient condition for an argument being analytic, as Toulmin says it is, but it is also not at all a necessary condition for an argument being analytic. Take this one premise argument:

Petersen has a mustache;
Therefore Petersen is a Swedish man.

The implied major premise might be "All people named Petersen are Swedes and all people who have mustaches are men," which, when expanded, might become a warrant such as "On the

basis of a person being named Petersen and having a mustache, one may take it that such a person is a Swede and a man." So we would have a syllogism in the first instance and a quasi-syllogism in the second:

Petersen has a mustache;
 All people named Petersen are Swedes and all people who
 have mustaches are men;
 Therefore Petersen is a Swedish man.

and:

Petersen has a mustache;
 On the basis of a person being named Petersen and having
 a mustache, one may take it that such a person is a
 Swede and a man;
 Therefore Petersen is a Swedish man.

As such this second version of the argument is one that according to Toulmin's formulation should be further expanded and tested via the verification test, as it has been expanded from a universal affirmative major premise. So, in a further act of expansion we might obtain the backing for the above warrant, authorizing it as an inference license via a claim such as: "Every person whom I have met whose name is Petersen is a Swede, and every person whom I have met who has a mustache is a man." Then, when we substitute the backing in for the warrant, we have the argument that is to be tested for analyticity:

Petersen has a mustache;
 Every person whom I have met whose name is Petersen is
 a Swede, and every person whom I have met who has a
 mustache is a man;
 Therefore Petersen is a Swedish man.

Does this argument pass the verification test? It does not, as checking the truth of the backing will never involve checking to see if Petersen is a mustached Swedish man, so long as my experience in dealing with Petersens, and all my experiences dealing with people with mustaches, has never included dealing with the particular mustached Petersen referred to in the argument. This argument is not analytic, then, according to the verification test, so long as I have never met the mustached Petersen referred to in the argument.

But does this argument pass the tautology test? I think it is plausible to claim that it does, as stringing the statements together is implicitly repetitive: Petersen has a mustache *and*

every person whom I have met whose name is Petersen is a Swede, and every person whom I have met with a mustache is a man, *and* Petersen is a Swedish man. While “Petersen is a Swedish man” and “Petersen has a mustache” do not explicitly say the same thing, they do implicitly repeat what we would take to be the case, *if* in our experience every Petersen we have ever met is a Swede, and every mustached person we have ever met is a man. Remembering that the tautology test, according to Toulmin, is passed so long as the conclusion merely repeats something that is “stated implicitly in the datum and the backing” (116) or “implicitly referenced” (126) by the premises, then this argument is analytic according to the tautology test (so long as we are not operating on a strong meaning of “implicitly stated or referenced”).⁵ In addition, as we saw, it *failed* the verification test, which is supposed to be a necessary condition of an argument being analytic. Therefore, it seems we can’t be sure whether this argument about the mustached Petersen is analytic according to Toulmin’s formulation, because even though it passes the tautology test, that test is not meant to be a reliable test for quasi-syllogisms in the first place (the reason why the verification test was introduced), and it also fails the verification test. Furthermore, this argument is not formally valid, as Toulmin seems to say it should be if it passes the tautology test, being a *D, B, so C* argument.

So at this point the verification test proves itself to be an unreliably authoritative test for analyticity. First, it is not the case that on their own, either the tautology test or the verification test provides both necessary and sufficient conditions for determining an argument’s analyticity: Toulmin’s different formulations of analytic arguments in terms of their necessary and sufficient conditions are misleading. If, on the other hand, we read Toulmin as claiming that passing the tautology test is sufficient but not necessary for an argument to be analytic, then it is not necessary for an argument to pass the verification test for it to be analytic. But Toulmin stresses the verification test over the tautology test: he introduced the verification test because in the case of quasi-syllogisms, it was supposed to more reliably indicate an argument’s analyticity than the tautology test (123-124). But it does not, as the above example shows: A quasi-syllogism may pass the tautology test but not pass the verification test. So it seems that two of Toulmin’s principle tests for determining analyticity, as he formulated them, are flawed, and that neither

⁵ Toulmin gives no indication as to what exactly counts as an implicit reference. But, given the clear object in his book of showing the inadequacy of deductive standards, it is reasonable to think that he had a loose idea of the kind of implicitness that was meant to satisfy the tautology test.

clearly indicates an argument's analyticity according to the letter of Toulmin's formulation. I think this is enough reason not to use Toulmin's distinction between analytic and substantial arguments: it just is not clear what the distinction amounts to.

6. Freeman's comments

James Freeman graciously agreed to read and remark on an earlier version of this paper. Further quotations belong to this correspondence. The most telling observation from his numerous helpful comments regards a rejoinder to the argument I offer whereby I claim that the parenthetical clause included in the backing "Each one of Jack's sisters has (been checked individually to have) red hair" destroys the formal validity of the argument in question and so according to Toulmin's own definition, forces a failure of the tautology test. Freeman suggests that we interpret Toulmin as meaning (while not explicitly claiming) that in our adding of the parenthetical clause in the backing, we are really "simulat[ing] universal quantification through conjunction," and if so, that the following version of the argument (which is equivalent to the one Toulmin explicitly formulates) "is formally valid and its associated conditional is a tautology:

Anne is one of Jack's sisters;
 Anne has red hair, & Sister # 2 has red hair, & ..., & Sister
 #*n* has red hair;
 So, Anne has red hair.

Freeman says that "[f]or such arguments, the backing can be stated in the form of a conjunction which simulates a universally quantified statement because the backing concerns the objects in a finite set all of which have been observed and found to have a certain property and the backing statement simply reports this fact."

If Freeman is correct, then it seems there is an interpretation of Toulmin's example that does indeed pass the tautology test, and is formally valid, and so is coherently analytic, according to Toulmin's own definition. If so, my critique on this front fails, and my claim that Toulmin's definition is opaque is therefore rendered less convincing.

My response is that even if we grant Freeman's analysis, and we justifiably construe Toulmin's backing in his example as being a conjunction of observation reports that simulates universal quantification, and so we see the example as correctly exemplifying the tautology test, we would still have to reconcile this with Toulmin's confusing articulation concerning the degree to

which the tautology test is authoritative. Toulmin was decidedly unclear concerning the degree to which the tautology, verification, and self-evidence tests each reveals arguments that are analytic. The fact that he uses an “if and only if” clause to articulate the conditions for the tautology and verification tests to indicate analytic arguments confuses matters, even if the tautology test is well-illustrated in Freeman’s interpretation. So even granting that the tautology test is a valid test on its own terms, in relation to the other tests, we still cannot say whether Toulmin took it as being authoritative or not, or the degree to which he took it to be authoritative, when dealing with the quasi-syllogism.

In a word, Freeman’s interpretation does not redeem Toulmin’s formulation of analytic arguments in *The Uses of Argument*.

7. Conclusion

I would like to suggest, in closing, that Toulmin’s concept of analytic arguments found in *The Uses of Argument* is opaque enough to look upon it with a certain amount of skepticism concerning its explanatory power as a model of argument type. It is just very difficult to say exactly what an analytic argument is according to Toulmin’s formulations. However, if Toulmin’s goal, through his articulation of the analytic-substantial distinction, was to substantiate his model of argument macrostructure with an anti-deductive approach, by showing that arguments can sometimes be cogent without being formally valid, then he did succeed at least in part: his examples all point to the idea that a conclusion may be reached legitimately, even if it is not entailed formally. Furthermore, his favoring of what he calls substantial arguments indicates that conclusions that move beyond a mere explication of the categorical statements of syllogisms are the more interesting sorts of arguments. This too, is for the good, and has inspired a significant community of scholars who are less interested in entailment and more interested in substantive conclusions reached non-deductively, with warrants and backings. But if Toulmin meant to say something more subtle in the theoretical support for his model, then his formulation of analytic arguments and the analytic-substantial distinction does not accomplish that goal clearly.

However, perhaps it should not bother those who read Toulmin that his conception of analytic arguments in *The Uses of Argument* is unclear: as inquirers interested and inspired by his anti-deductive project, it seems possible to pass over Toulmin’s analytic-substantial distinction, embracing a study of the plurality of cogent arguments with general inference licenses

and their field-dependent authorizations, which provide support for their substantive conclusions.

Acknowledgements: An earlier version of this paper was presented at the 7th Conference of the International Society for the Study of Argumentation, in Amsterdam, The Netherlands, in the summer of 2010. My thanks go to the organizers of the conference and to those who attended my presentation, especially to Lilian Bermejo-Luque, who provided helpful comments on the draft I presented. Also, my sincere thanks go to David Hitchcock for his comments on earlier drafts, and also to James Freeman, for his correspondence and for his permission to include that correspondence in this paper. Finally, I am grateful to the anonymous reviewers of *Informal Logic* for their critical comments, and to the editors of *Informal Logic*, especially Ralph Johnson.

References

- Bermejo-Luque, L. (2009). "Argumentation Theory and the Conception of Epistemic Justification." In M. Koszowy (Ed.), *Informal Logic and Argumentation Theory*, pp. 285-303. Białystok: University of Białystok.
- Casteñeda, H.N. (1960). "On a Proposed Revolution in Logic." *Philosophy of Science*, 27: 279-292.
- Cooley, J.C. (1960). "On Mr. Toulmin's Revolution in Logic." *The Journal of Philosophy*, 56(2): 97-319.
- Cowan, J.L. (1964). "The Uses of Argument—An Apology for Logic." *Mind*, 73: 27-45.
- Hardin, C.W. (1959). [Review of *The Uses of Argument* by S. E. Toulmin]. *Philosophy of Science*, 26: 160-163.
- Hitchcock, D., & Verheij, B. (2006). "Introduction." In D. Hitchcock & B. Verheij (Eds.), *Arguing on the Toulmin Model. New Essays in Argument Analysis and Evaluation*, pp. 1-23. Dordrecht: Springer.
- Korner, S. (1959). [Review of *The Uses of Argument* by S.E. Toulmin]. *Mind*, 68: 405-431.
- Toulmin, S.E. (1958/2003). *The Uses of Argument* (Updated Edition). Cambridge: Cambridge University Press.