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Thierry Herman

University of Neuchatel and Lausanne

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Revising Toulmin’s Model: Argumentative Cell and the Bias of Objectivity

THIERRY HERMAN
Faculté des Lettres et Sciences humaines
Université de Neuchâtel, Lausanne et de la Suisse italienne
Université de Neuchâtel, Institut de Littérature française, Pierre-à-Mazel 7, 2000 Neuchâtel
Université de Lausanne, EFLE, Bâtiment Anthropole, 1015 Lausanne-Dorigny
Switzerland
Thierry.Herman@unine.ch; Thierry.Herman@unil.ch

Abstract: Toulmin’s model (1958) may be used to define an argumentative cell (Plantin 2005), but I’ll argue that it needs to be revised with some linguistic and pragmatic insights in order to better describe arguments as they occur. These refinements about “data” and “backings” in Toulmin’s model will shed some light on some effects of what we call a “bias of objectivity” in the layout of arguments.

Keywords: argumentative cell, data, evidentiality, layout of arguments, linguistics, objectivity, rhetoric, Toulmin

1. Introduction

Stephen Edelston Toulmin is, for sure, “one of the founding fathers of the modern theory of argumentation” (van Eemeren et al., 2014, p. 204). It is indeed quite intimidating to come back to his very famous “layout of arguments” model (Toulmin, 1958/1993) in order to refine it from the linguistic and rhetorical point of view that I defend; but I will explain why I think it must be amended. This layout, presented in the third chapter of his 1958 book (“The Uses of Argument”), had a significant influence, maybe less in its original field—philosophy—than in public communication sciences (van Eemeren et al., 2014, p. 228), text linguistics and approaches in rhetoric and discourse analysis (de Jonge, 2008). Formal logic has published some criticisms about this model, and that’s not really a surprise since Toulmin thought logic to be inadequate to address the practical reason of human affairs and logical norms to be irrelevant in ordinary practices of argumentation. Some theorists of ordinary argumentation have also considered Toulmin’s model as ambiguous or vague (van Eemeren, 1996). This model has sparked a number of debates and clarifications about its usefulness and its problems, and some scholars like James Freeman or David Hitchcock remain strong advocates of this layout (Freeman, 2011; Hitchcock, 2003; Hitchcock & Verheij, 2006). More than fifty years after its publication, it seems that the layout of arguments is still widely used and it still constitutes the touchstone of most French books about argumentation (Amossy, 2012; Danblon, 2005; Plantin, 2005).

Even if a lot has been said (and clarified) about some components of the layout, for example the difficulty to define a warrant or to distinguish between a warrant and data [see van Eemeren et al. (2014), chapter 4, for a great summary of the debates], the fact remains that applying Toulmin’s model to real ordinary examples is quite an uneasy task. My students are dealing with challenges when they try to apply this model to monological texts and so do I (see also Herman & Micheli, 2015). These difficulties have led me to identify four problems in the layout of arguments. The ambition of this talk is to address these four problems and to offer various insights in order to refine the model according to the criteria of the rhetorical and descriptive point of view I defend and use. One of these problems paves the way to what I call an objectivity bias, which I’ll come back to. It should also be pointed out that this communication
offers research suggestions and—from my point of view—promising solutions. However, these propositions need to be refined, through extensive testing conducted on the corpus. As long as this text may be, it does only provide an overview of the background I wish to investigate in the near future.

I will first explain the theoretical frame I use, before briefly recalling Toulmin’s model. Then, I will set out the four issues and discuss them through a slightly modified model of the layout of argumentation. Far from being iconoclastic, my approach is not intended to draw a line under Toulmin’s layout of arguments, but to refine a model by a linguistic approach—that was alien to the *Uses of arguments*’ perspective—and, ultimately, to pay a tribute to the descriptive power of its layout of arguments.

2. Theoretical frame

The approach to rhetorical and argumentative discourse I will defend here postulates the interrelatedness of language, cognition and social context. The Ancient rhetorical frame I use, an Aristotelian frame, typically combines language, social context (the do and the don’t in the audience’s society for example) and reasoning processes and weaknesses of the audience. Unlike philosophy, rhetoric is related to the art of arguing within a specific and social context and aims at the most efficient way to achieve a speaker’s goal (Aristotle, 2014; Kennedy, 1994; Perelman & Olbrechts-Tyteca, 1958). Even if moral questions may arise about such uses of language, rhetoric seems the best framework to investigate argumentation expressed in natural language and aiming at being accepted by an audience. To be clearer, the core of the rhetoric, viewed as a process (Tindale, 1999), is anticipation. A speaker must steadily think about the effects each of his or her communicative choices, within situational parameters, may produce on the members of the audience’s mind, and adapt her speech accordingly. Better still, an effective rhetor, I assume, will construct or schematize (Grize, 1990; 1996) her discourse in order to control or to provoke effects—either by cancelling undesirable ones or by favouring effects that contribute to the persuasive goal.

The consequences of this perspective are at least twofold: (i) analysing a persuasive discourse implies analysing a process rather than a product which is why we will try to explain how discursive and linguistic features may create cognitive effects that in turn contribute to achieving the persuasive goal; (ii) as each discursive feature (word, syntax, intonation, etc.) is potentially a building block of the rhetor’s persuasive strategy, I will analyse speeches or texts as they evolve and in the way they are delivered: even if the reasoning that links an argument and its conclusion is identical whether the speaker says “A, therefore C” or “C, because A”, it may be significant to investigate the different cognitive effects of such layouts—for the same reason, I generally do not rephrase what the speaker has said in a formal language.

The idea of giving one’s consent is historically central to any account of rhetoric, which is here very minimally defined as “the discipline by which a speaker publicly delivers at least an opinion (thereby constructing a stance within a social territory) in view of gaining (part of) the audience’s adhesion” (Herman, Forthcoming). Rhetorical strategies are the discursive processes by which the speaker attempts to achieve the goal of securing adhesion. These definitions highlight two constitutive features of any argument: the opinion defended by the speaker and the fact that this opinion comes with various rhetorical strategies meant to increase the chances of

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1 We adopt here the notational convention whereby speakers are referred to as females and addressees are referred to as males.
adhesion. However, these two features are not yet sufficient to trigger an argumentative process; argumentation, for us, is one possible way of making someone adhere to a position. More specifically, according to Jacquin and Micheli (2012),

Argumentation can be thought of as a specific mode of the verbal processing of disagreements, which consists in the construction of solid positions, namely positions that are supported by textual justificatory work and that are situated through dialogical and interactional positioning work. [my translation] (p. 600)

This definition moves away from the goal of adhesion that we attributed to rhetoric and, at the same time, adopts the idea of positioning by introducing three fundamental components: the idea of real or potential disagreement, the idea of support or justification and the idea of resistance to adverse positions (“solid constructions”). Such components may be studied with the help of Toulmin’s famous model of arguments (1958/2003).

3. Toulmin’s layout and the argumentative cell

In a dialectical perspective, Toulmin starts the layout of arguments by the claim, this is to say the standpoint one would like to be adopted or believed by the audience. But this audience will not accept the claim and may, more often than not, challenge it by asking ‘What have you got to go on?’ (Toulmin, 1958/1993, p. 102). That pushes the speaker to give Datum or Data (“Grounds” in (Toulmin, Rieke, & Janik, 1979), i.e., facts, as arguments leading to the claim. Still, this move can be challenged by a new question: ‘How do you get there?’ (Toulmin, Rieke, & Janik, 1979). Answering this question forces the speaker to offer a Warrant that shows the relationship between Data and Claim. Data, Warrant and Claim are not connected as logical syllogisms are: the Claim is only a probability. This approximate way to argue entails to bring in the “degree of force which our data confer on our claim in virtue of our warrant” (Toulmin, 1958/1993, p. 93). The role of this force is represented by the Qualifier—a kind of epistemic modality about the certainty of the provided argumentation. Because of exceptions that may arise, precisely because of the qualifier, Toulmin adds a Rebuttal to his model. This Rebuttal is a kind of unless-statement which leads to negate the claim: “exceptional conditions which might be capable of defeating or rebutting the warranted conclusion” (Toulmin, 1958/1993, p. 94). Finally, Toulmin adds a new challenging question about the Warrant: “why in general this warrant should be accepted as having authority?” (1958/1993, p. 95), since “warrants are not self-validating” (Toulmin et al., 1979, p. 62). Toulmin’s last component is ‘Backing’. The Backing is field-dependent, according to Toulmin, and it can present known statements in certain fields, legal rules, physical forces, etc.

The final layout is the following one:
I will call this layout an “argumentative cell”, following Christian Plantin’s work (1990; 1996; 2005) on this unit from his reading of Toulmin:

Most of all, a broad interpretation of Toulmin’s model—maybe an extrapolation—lays the foundations of a unit one could call an “argumentative cell”, articulated to a text’s dimensions. This cell embeds the following elements:

- an argumentation, connecting a position (a thesis, a conclusion) to supporting data (an argument);
- a refutation, *i.e.* an allusion to the position of an adversary who defends a different conclusion, and a negation of this position.

This cell organisation does not depend on a form or a definite textual element; it […] corresponds to an utterance as well as to a paragraph. [my translation] (Plantin 1990, p. 33)

Plantin’s idea is really important: identifying a basic or extended argumentative unit leads to better envision structures or argumentation and helps to give a frame in which we can consider how components of this unit interact. Plantin (1990) does argue that an argumentative cell integrates justification (a claim requires good reasons to defend it), rhetoric (the cell is built on a relationship with an addressee) and dialectic, because the argumentative cell is submitted to a refutation by the addressee (p. 34). But he does not say if this integration is always necessary. I will consider that there are only three macro-categories of argumentative cells—whose nucleus is a claim:

1. A claim and its justification (no refutation): “It’s Saturday; so Jean is probably at home.”
2. A claim and its counter-argumentation (counter-claim and/or counter-arguments but no justification of the claim): “Even if it’s raining, Mary should not give up her walk” (no arguments why she should not give up).

3. A claim, its justification and counter-argumentation\(^2\): “I know it’s late. But I need to finish this work and this is why I’m asking you for help.”

Such a typology illustrates for now that the necessary component of an argumentative cell is a claim: this is the component which give boundaries to a cell. Note that a claim is different than a conclusion—despite the fact that Toulmin’s claim has been translated as “conclusion” in French. I consider it as an assertion for which the speaker marks a personal commitment whereas a conclusion can be, for example, the opponent’s justified standpoint. Note also that an argumentative cell cannot consist of a claim alone\(^3\).

Now argumentative cells can combine between them and forge a greater complex unit. It is the case, for example, when a justified claim in an argumentative cell is used to justify a further claim afterwards. This leads the way to complex structures of argumentation, but this subject will be tackled later.

4. Four problems

The useful layout by Toulmin nevertheless presents some problems which are already tackled by argumentation theorists about the nature of the warrant, the difference between Data and Backing or the question of field-dependency. I will not directly here argue about these problems; let me simply say, in order to be clearer in the following pages, that I am in line with Hitchcock’s view on warrant. Hitchcock (2003) shows that, for Toulmin, a warrant always has a generalized form which offers an inference-license: “you can infer from data of this kind a corresponding claim of this kind” (p. 73). This bridging statement between Data and Claim is not a major premise that links a case and a result, like in a syllogism, but a general inference beyond the particular case\(^4\).

The first problem occurs when analysing natural argumentative texts as processes. For example, when a sentence begins with a concessive marker—like “even if”—how is it possible to integrate the concession in a Toulminian layout? What to do if a claim is justified by another claim and not by facts? To be more specific, I have identified four problems that are not really discussed, to the best of my knowledge, in the literature about Toulmin’s model—and this is the reason why I wanted to share my thoughts in this OSSA conference.

1. The first problem is the constant definition of Data or Grounds as facts or factual information in Toulmin’s work. Actually, we can easily find examples where a claim is justified by other opinions or interpretative statements, like this comment on the New York Times website, in which no utterance is factual: “Trump is America's response to the smug, condescending arrogance from NYC and [Washington] DC. The non-stop bashing of white, Christian Americans has consequences. It just shows how out of touch the elites are with the average American”. “The bashing of white, Christian Americans” is used as a Datum to justify the

\(^2\) Counter-argumentation can be complete (argument and conclusion) or not; counter-argumentation can also be a concession or a rebuttal.

\(^3\) What happens if an argument supports two different claims [“divergent argumentation” (cf. Walton, 1996)]? I have not thoroughly examined this aspect yet, but I tend to consider that there would be two argumentative units.

\(^4\) Note that Toulmin argued in his seminal book that Warrants are implicit and Data explicit, but Hitchcock, and others, put forth that it is not sufficient to distinguish Data and Warrants: the functional difference of the components are better criteria than implicitness or explicitness.
success of Donald Trump’s candidacy for the presidency of the United States. But it is quite hard to consider this argument as factual information, right?

2. The second problem is the nature of the Backing. The Backing is a way of ensuring the solidity of the Warrant. But it has not a clear-cut definition in Toulmin’s works. I think, and I will argue about that later, that the field-dependency of the Backing can be often envisioned as a question of evidentiality (Aikhenvald, 2006). That is to say, in linguistics, how language encodes the nature of evidence for a given statement (1. existence of the evidence, or not; 2. kind of evidence). In such a way, Backing can be seen as a bridge-like statement between the case that is being argued and sources of knowledge in certain fields. It can refer to laws, shared standards, testimonies, etc. Toulmin uses laws in Harry’s case and statistics in the Swedish Petersen’s case as examples. Given this vision, we can wonder whether there is only one place for the Backing in the layout of arguments. I will argue that Data have Backing too. Now, within this frame of Backing as (mostly) evidential proofs, it is not only Warrants that are supported by evidential credentials, but also Data. I will argue here that the layout of arguments must be completed by two kinds of Backing: Backing_D and Backing_W.

3. The third problem is that Toulmin’s dialectical dimension fits with the component of the restriction ("Rebuttal"), but it is not the only way to tackle counter-arguments in natural argumentation processes. According to Freeman (2011), undercutters and rebuttals may both be used. In Oswald and Herman (2016), we argue that there is not enough space for concessive moves in the layout of arguments. I will argue that the unity of an argumentative cell is maximally founded on two joint Toulminian layouts in order to resolve this problem.

4. Finally, the last problem I encounter is how to deal with complex structures of argument (linked, convergent or serial argument) (Freeman, 1991; Snoeck Henkemans, 1992; Walton, 1996) in the Toulminian layout. I will briefly comment on this problem during the examination of the last one.

5. The problem of Data

Analysing argumentation relies on the possibility to identify how argumentation is built (the argumentative cell) and the nature of its building “bricks”. The work of James Freeman (2005) on “acceptable Premises” is useful in this way, since “rhetoricians have an obvious interest in classifying statements” (p. 94). Freeman (2005) uses a fourfold typology of statements; the first division is “broadly logically Determinate vs broadly logically indeterminate Statements”. The first category uses analytic statements such as “All bachelors are unmarried”, or “Either it is raining or it is not raining”. The second division is “evaluative vs non-evaluative standpoints”. The first category clearly encompasses opinions with value judgements (bad, good, beautiful, preferable, etc.). The second one is again divided. For Freeman (2005), it is problematic to use for non-evaluative statements a division between “interpretations” and “descriptions” (facts). Thus he argues that descriptions can be characterised by the way they offer “extensional truth-conditions”, that is to say: “in specifying the conditions under which these statements would be true, we would not make any references to other possible worlds” (Freeman, 2005, p. 105). Interpretations are then defined as “intensional nonevaluative statements” (Freeman, 2005, p. 105).

5 “Petersen is a Swede; The proportion of Roman Catholic Swedes is less than 2%; So, almost certainly, Petersen is not a Roman Catholic” (Toulmin, 1993, p. 102).
These distinctions are not used in the Toulminian layout. Data are defined by Toulmin as a set of facts. Yet, some argumentative examples, as example 1, do not use facts, but evaluative statements and interpretations as Data for an (evaluative) statement in the Claim.

(1) [About the pilot of the TV show “Vinyl”] (a) The episode, (b) which is plenty movie-like, (a) could arguably stand alone as Scorsese’s most satisfying film since “The Departed,” (c) filled with a panoramic sense of mania, (d) a powerful use of music and (e) a fiery lead performance from Bobby Cannavale. (Hans Stiever, Washington Post, February 10th, 2016)

I will consider here that this utterance includes an argumentative move: three arguments are given to “prove” that Scorsese’s pilot is his “most satisfying film”: (1c, 1d and 1e) are justifying (1a)\(^6\). This quite common example illustrates three problems I would like to tackle here: the complex argumentation structure (three arguments for one claim), the fact that data for a claim are not facts (1c, 1d, 1e), and the fact that some claims are sometimes not justified (1b)\(^7\).

Although Freeman’s work is quite interesting, I use a slightly simplified typology and a linguistic test to separate interpretations and evaluative statements from descriptions or facts\(^8\). The test, used by Gosselin (2010) on linguistic modalities to distinguish alethic modality and epistemic modality\(^9\), is the insertion of “I find that”. Descriptions or facts (or statements counted as such) are independent of the speaker. Consequently, the insertion of “I find that” is difficult or impossible: “I find that Mark is 5 ft tall” seems rather odd\(^10\). Opinions (the general label I use for evaluations, pieces of advice, decisions and interpretations, etc.)\(^11\) need a speaker’s commitment (except when opinions are reported speech) and put the speaker in a position to defend them if she is challenged to do so. In example (1), we cannot find facts, using this test. So, (1a) to (1e) are opinions.

The second promising criterion has to do with the position of an opinion or a fact in an argumentative cell. That means studying whether the clause is used as a starting point of an argumentation (without any justification in the argumentative cell), as an imposed clause (neither justification nor argumentation below) or as a clause that has been precisely justified in the argumentative cell. Here, (1a) is justified, (1c, 1d and 1e) are starting points of argumentation, and (1b) is neither justified nor in relationship with a claim. Studying these cases allows me to create a table where components of the layout of arguments are a bit refined according to their nature and their position in an argumentative cell.

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\(^6\) This reading is debatable, since one can consider it as only a description of this TV show. But such a reading is not the most relevant interpretation (Sperber & Wilson, 1996) of this utterance.

\(^7\) In this kind of case, a claim is more a stance taking (Englebretson, 2007; Jaffe, 2009) than component of an argumentation. It does not integrate an argumentative cell, according to the definition above.

\(^8\) Analytic statements can be counted as facts too.

\(^9\) Alethic modality is the modality of truth whereas epistemic modality expresses a judgment on reality (certainty or uncertainty).

\(^10\) Note that “Mary is at home” can be an opinion if this fact is only guessed or inferred from arguments. So, the linguistic test needs to be used in context.

\(^11\) Strictly speaking, we should make a difference between facts and non-facts, but this terminology feels rather artificial, which is why I prefer to label non-facts as opinions. The category “Interpretation” used by Freeman in his typology is also considered as an opinion here.
Table 1. Nature of the components of an argumentative cell and case of example 1

Such an analytical tool highlights something I find more interesting than just Data: it is the way Data can appear to be shared arguments that are external to any discussion about them. So, it can be a strong rhetorical move to impose them when there are in fact debatable. In the same way, I consider that facts working as the starting point of argumentation are supposed to be true. It is also a strong rhetorical move if these facts are unknown or even false. This is where I can locate what I call an objectivity bias: the idea is that opinions appear to be already shared starting points of argumentations or that facts appear to be true. Even if these opinions are not linguistic presuppositions, they can have the same effects: you are not supposed to argue about them—it is considered as agreements in Perelman & Olbrechts-Tyteca’s words (1958). This table is a tool to consider ideology in discourse, but it is also a tool to spot some rhetorical manoeuvring when seemingly agreed-upon arguments or imposed claims can in fact be debatable. Let us see an example:

(2) If the spirit or ghost activity does not stop, or stops only for a while, then resumes, some ghost investigators claim a spiritual cleansing of the house may help ease the haunting for a while. This is the traditional practice of ‘smudging’ a home to get rid of an unwanted ghost. However, (a) we feel this technique may only temporarily slow the activity down, (b) for the ghost needs to truly move on for a haunting to cease.

(http://www.angelsghosts.com/how_to_get_rid_of_ghosts)

In this example, the Claim 2a is justified by a “Datum” (2b) that is expressed as real, objective and already known. One can call that an “obviousness effect” and I will argue here for an “objectivity bias”, because it forces the audience to accept that these facts are true or these opinions are shared. It is also a sort of authoritarian assertion by the speaker, such as the ones I studied earlier (Herman, 2014). What I wanted to highlight here is that unbelievable facts or disputable opinions may appear in argumentative moves as “data”, i.e., something known or shared, under these conditions:

(a) these Data must neither be justified nor explained;
(b) when these Data are facts, they must appear as true and manifest the highest level of certainty (no conditionals, no “according to”, etc.);
(c) when these Data are not facts, but opinions, they must not appear as such: specifically, they do not appear as assumed personal opinions (I think that X, for example), but as already collectively shared opinions, or, in rhetorical terms, as a doxa.

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12 When a fact is already or supposed to be known, the layout of arguments can be used as a layout of explanation (see Herman, 2015). I will not develop this point further here.
Now, these conditions reveal that an objectivity bias of this type relies on the collective nature of argumentation: as humans, we need to consider some facts as true even if we are not able to verify them and we need to share values and opinions that bind a community together. The first point on facts highlights an important question: where do the facts come from? The Backing in Toulmin’s layout will provide some leads on this matter.

6. The problem of the Backing

According to Toulmin, the Backing is the element that will confer authority to the warrant: “For instance, in the field of law, a backing may refer to particular legal stipulations […] but in other fields the backing may refer to the results of a census […] or to aesthetic norms, moral judgments, psychological patterns, or mathematical axioms” (van Eemeren et al., 2014, p. 223).

The idea of the backing is thus to back up or to support the reality or the authority of the warrant, by assuring the existence of a law, a norm, a field of knowledge whence the warrant originates. The nature of the Backing is quite different from a statement with a role of Data, Warrant or Claim. One can assume that the Warrant and the Backing are mostly linked by a relation of origin or source of the information. Examples commented on by Toulmin offer clear cases of Backings as laws or as statistics. Now, in linguistics, this relation between the information and its source is known as evidentiality: “Evidentiality is a grammatical mean for marking information source. The correct use of evidentials is linked to categorizing ways in which information is acquired” (Aikhenvald, 2006, p. 365). Many languages include in their grammar or in their lexicon marks that indicate information sources. More than the language marks themselves, the very fact that languages felt a need to code origin is interesting from the point of view of argumentation, rhetoric or cognitive and social psychology. Indeed, it tends to attest to the importance of being able to trace information back to an origin or a source—and, if possible, a trustworthy one—to find it reliable.

It is therefore not highly surprising for Toulmin to feel the urge to add to his model an element that grounds the authority of the warrant enabling the passage from datum to claim, so anthropologically inscribed the call to establish necessary knowledge in order to make decisions. These grounds are not necessarily written texts as laws or statistical results, of course. According to Aikhenvald (2006), the evidentiality semantic system is based on these parameters: visual, sensory, inference on visible evidence, assumption based on evidence other than visible results, hearsay and quotative (p. 367). European languages however, especially English, tend not to overly grammaticalize evidentiality. If evidentiality in European languages is relatively implicit, it may explain why it is necessary to add a backing-type component in an argumentation layout, language itself being under-resourced in this regard.

And yet, in Toulmin’s layout, even if the conclusion is constructed by means of a warrant itself supported by the backing, the datum, as for it, seems to have to resort to no authority to be legitimized. This may seem surprising. In journalism, for instance, it is asked of all aspiring journalists to base any factual piece of news on at least two different and independent sources. I think it could be far more interesting to consider that a Datum may have a Backing, even if it is necessary to break an utterance in two components. In the utterance: “I saw this man putting on a hood”, the Datum could be “the man put on a hood” and its Backing, the eyewitness testimony. In other words, we deem necessary, without altering Toulmin’s definition of backing in any way, to consider that the Data can themselves be supported by the authority of a source. We therefore
suggest considering two types of Backing: the Backing$_D$ (supporting the Datum) and the Backing$_W$, consistent with the Toulminian tradition.

This proposition is not quite new. In a certain way and as mentioned by certain authors, the layout thus designed brings together Toulmin’s model and the rhetorical epicheirema. Indeed, even if Cicero admits that some propositions do not require a proof, the five-part maximal scheme he suggests for epicheirema is close to Toulmin’s model:

Are there five parts of that argumentation which is carried on by ratiocination? First of all, proposition, by which that topic is briefly explained from which all the force of the ratiocination ought to proceed. Then the proof of the proposition, by which that which has been briefly set forth being corroborated by reasons, is made more probable and evident. Then assumption, by which that is assumed which, proceeding from the proposition, has its effect on proving the case. Then the proof of the assumption, by which that which has been assumed is confirmed by reasons. Lastly, the summing up, in which that which results from the entire argumentation is briefly explained. So the argumentation which has the greatest number of divisions consists of these five parts. (Cicero, 1888, XXXVII)

In this perspective, each element mobilized in an argumentation can be proved, so as to make it more credible. The function is therefore closed to the Backing’s: to give authority to the propositions that will be brought together in the process of establishing the Claim. In 1968, Jimmie Trent has already suggested a support for the Data (Backing$_D$) and a link to rhetorical epicheiremas. But Trent (1968) does not use Backing in the limited definition of sources of information. For example, the Datum “Anne is probably one of Jack’s sisters” is justified by “because Anne lives with Jack’s parents” (Trent, 1968, p. 258). Hence, supporting a Datum can in fact introduce a new argument—a new Datum—to prove it. And this is a problem regarding an argumentative cell as a unit: there is no difference between this and a serial argument, where an argument justifies a claim which is used as an argument for another claim. The recursion may be infinite. Therefore, I consider that a Backing$_D$ or a Backing$_W$ is a necessarily evidential backing, even if sources of information can be vague or unidentified, and not new facts or arguments.

A concrete use of this principle may be found in scientific writing. The rule in this case is precisely to support the Data by sources, as in the following example:

(3) Both crime and the criminal justice system designed to deal with crime, impose tremendous costs on society. Over 11 million serious crimes are reported in the United States each year$^1$, and the US has the highest per capita imprisonment rate of any country$^2$. Despite being home to only 5% of the world’s population, the United States holds 25% of the world’s prisoners, with nearly 1% of the US population living behind bars$^3$. (Thibodeau & Boroditsky, 2011, §1)

Here, footnotes are typically Backings, and help us to consider factual Data as true. Let us now imagine that no source was given in example (3) and that the same discourse was given by a US presidential candidate. We know that suspicions concerning the truth of the exposed factual data may arise from the context—one usually tends to mistrust statistics given by campaigning political staff—but it doesn’t imply that these facts are considered as false. It is true that the mobilised Data, with no Backings, are neither explained nor legitimized by an external authority. Nevertheless, Thomas Reid’s (1970/1974) conception (and then Millikan’s, 1995, or Burge’s, 1993) highlights that Data without evidentiality and are a priori considered as true: "A person is a priori entitled to accept a proposition that is presented as true and that is intelligible to him, unless there are stronger reasons not to do so" (Burge, 1993, p. 469). As a result, Backing is not mandatory in an argumentative cell and its absence does not perceptibly decrease the power of the argumentation. The objectivity bias lies also in the absence of an optional Backing.

Let us go back to table 1 in order to refine it. I tend to classify next to known or shared data those that possess a Backing and can be considered as true or can be checked if a doubt arises. On the contrary, when the Data lack a Backing, the facts are imposed as true and are not easily verifiable. It is, in my opinion, another case of objectivity bias. It is no longer about opinions being presented as obvious or shared, but about facts that are presupposed as known or that are asserted by the speaker on the assumption that she has sufficient authority for the audience to accept them as true.

<table>
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<tr>
<th>Known or Shared</th>
<th>Imposed</th>
<th>Justified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facts</td>
<td>Data + evidence</td>
<td>A priori true Data</td>
</tr>
<tr>
<td>Opinions</td>
<td>Agreed-upon arguments</td>
<td>Imposed claim</td>
</tr>
</tbody>
</table>

Table 2. In bold, the three places where objectivity bias may occur

It has appeared, through the last two sections, to what extent the revised Toulminian model may reveal rhetorical effects of real or pseudo-objectivity, provided that one frees itself from the idea that the argumentation starting points are factual non-sourced data.

The other amendment to the Toulminian layout I suggest is to adapt its remarkable way to take into account a dialectic character, through rebuttals, to various constraints. It implies leaving behind the question of the objectivity bias, in a larger attempt to define the argumentative cell.

7. The problem of rebuttal

The only dialectic entry proposed by Toulmin in his model is left to the charge of the “Rebuttals”. These are arguments that will invalidate the claim and that can be introduced by “except if” or “unless”. However, from a linguistic perspective, it is not sufficient, since concessions do not fit into the layout. Indeed, a concession does not invalidate the Claim: the latter remains valid, despite an opposing argument.

James Freeman (2011) attempts a clever analysis of the argumentative structures within a Toulminian framework, while taking into account different forms of rebuttals, as well as
concessions. Without going into the minutiae of a detailed analysis of the role of rebuttals or undercutters in complex argumentative structures—which would require the writing of another paper—we would like to expand a little bit on what Freeman (2011) says about concessions:

There is yet a third way for a proponent to respond to rebutting defeaters. Instead of countering them, he may simply admit them as negatively relevant to the conclusion, but in effect claim that whatever negative force they have is completely defeated by the original premises. Here “even if,” admitting their possibility, or “even though,” admitting that they actually hold, signals the statement of the rebuttal and the appraisal of its ineffectiveness in defeating the original argument. (p. 27)

Considering example (4), Freeman (2011) first refers to the concession diagram (below) established by Govier (1985/2005):

(4) Even if Mrs. Wilson and her daughter had a reconciliation, the fact is that Mrs. Wilson’s will leaves all her estate to charity. Therefore her daughter has no share in her estate.

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He then evaluates—and I support this view—that this scheme considers the conceded opinion as a slightly strange premise and suggests replacing it by a “rebuttal box” marked by concession:

Although it is unquestionably more explicit, the marking of the difference between Rebuttals and concessions strikes me as insufficient. Especially since the validity of the conclusion represented by (2) is maintained, even though the Rebuttal is supposed to invalidate the conclusion. And yet, the last scheme would also be used by Freeman in the case of a counter-argument actually invalidating the conclusion.
If we consider that the Claim is the nucleus of an argumentative cell and that an argumentation can therefore hold no more than one Claim, the full argumentative cell may contain: one or more arguments supporting the Claim, one or more counter-arguments insufficient to invalidate the Claim (arguments pointing to a conclusion opposite to the Claim) and one or more strong counter-arguments that invalidate the Claim if they occur. Each argument or counter-argument mobilizes a Warrant and a Backing that support either the Claim or the opposite of the Claim. In its maximal expansion, the argumentative cell may, in my opinion, be described as the association of *two* anti-oriented (the first one against the second one) Toulminian layouts (without Rebuttals—see below why), as in the following example (where the Toulminian model is adapted vertically):

![Figure 1. The maximal expansion of an argumentative cell](Image)

I am aware of the poor readability of this scheme, which can be represented in a simpler way as the argumentative square (see below). What should be retained is that the Claim (C) may occupy interchangeably the C1 position (with a Rebuttal in D2) or the C2 position (with a Concession in D1). A concession (D1 in the left part of the model) should lead to a non-C implicit conclusion (≈ C1). But a stronger argument (D in the right part) may then lead to the speaker’s Claim. As for the Rebuttal, the data occupy D1 and lead to the C1 Claim, but a Rebuttal may invalidate the argumentation if this rebuttal occurs\(^\text{13}\). If the Rebuttal (D2) is itself countered by a Rebuttal, a new argumentative cell is created. Thus, each restriction may incorporate a new argumentative cell, provided that the restrictive argument is invalidated; similarly, each Datum may be backed up by other arguments (in this case, the Datum becomes the claim of another argumentative cell); finally, the Claim may also serve as an argument for another Claim (thus becoming the Datum for another Claim): the expansion potential of the argumentative cell, creating a complex argumentation, are therefore multiple. Before turning to the extensions, let us focus for a bit longer on the basic model, called the argumentative square.

\(^{13}\) What happens when an argumentative cell contains either a concession or a Rebuttal? Let us consider this example: “Even if the sun is shining, I will stay at home, unless an emergency happens.” There are two options: either we consider that as a new expansion of the argumentative cell or as two argumentative cells that share the same Claim (“I will stay at home”). Because of Ockham’s razor, I am in favor of the last option.
8. The argumentative square

When an argumentative cell includes some counter-argumentation, it could be useful, as shown by Moeschler (1989) who introduces this as an “argumentative square”, to put forward a diagram with four different poles or positions (α, β, γ, δ) where α and γ are anti-oriented arguments that may lead respectively to the conclusions β and γ\(^\text{14}\)—see figure 2. This case is illustrated by (5):

\[(5)\] Even if Peter is smart (α), he is so untidy (γ) that he will probably fail the exam (δ) (implicit β: he will probably pass the exam).

But this argumentative square needs to overcome two challenges. The first is that counter-argumentation does not necessarily require the four positions to be filled. Many concessions only fill three (Moeschler, 1989 and other studies on concessions agree on this) and offer then an argumentative triangle,\(^\text{15}\) which must not be seen as an incomplete square. The second is that a pole (α,β,γ,δ) is tied in this vision with a function (argument, conclusion). And this can be quite confusing. Steve Oswald and I (2016) argued that the function of each pole is determined by (a) the place of the pole in the triangle or square; (b) the nature of the utterance that occupies each position; (c) the instructions delivered by linguistic markers, when present, or default semantic and pragmatic instructions.

First, we need to introduce the five different possible schemes with these four poles (one square and four triangles) and then illustrate how poles are determined by the relationships between them. As shown in example (5), we underline here that a pole may be implicit or explicit, and that just because a pole is implicit, it does not mean that that pole does not exist.

\[\text{Figure 2. The argumentative square}\]

In this argumentative square, we do not specify functions for each of the poles because β could be the defended Claim and γ a Rebuttal that would lead to cancel the Claim in δ (the “classic” Toulminian case) or β could be a generally expected conclusion and δ the stronger claim. The

\(^{14}\) This passage was taken from Oswald & Herman (2016) and adjusted here.

\(^{15}\) Moeschler (1989) advocates a distinction between concessive triangles and the argumentative square that we will not use here. Moreover, he uses a relation of causality between conceded argument and conclusion, but we will show that the nature of the relationship is looser than strictly causal.
point is that the same scheme can be used in different ways, depending on the functions of each pole. This is a strong argument to separate poles and functions.¹⁶

Poles cannot be envisaged without the relationships that can hold between them: this theoretical model postulates four relationships:

1. The first is “is contradictory to”. The dialectical tier implies a disagreement or an incompatibility between two poles that feeds the counter-argumentation between the speaker and her opponent. In the argumentative square above, β and δ have this relationship, which is depicted with a double-arrow line. Contradiction may occur between α and δ, β and γ or β and δ, but never between α and β, γ and δ (vertical lines) or between α and γ (logical rule of non-contradiction).

2. The second is “is an argument for”. I will not suggest here that this relationship is necessarily a causal relationship. Arguments from sign, for example, are linking the sign used as an argument (for example: Paul suffers from a strong fever) to a possible cause used as a conclusion (for example: Paul has the flu). Here, the argumentative move goes from effect (argument) to cause (conclusion), and the causality relationship is the reverse of this move. The single-arrow line illustrates this relationship when the arrow is pointing downwards.

3. The third is “is justified by”. When a conclusion is textually present before the argument that supports it, we invert the single-arrow line to illustrate this relationship, following our epistemological principle, which dictates that we observe how an argumentation is developed in the linguistic chain. In order to simplify our theoretical approach, we will not represent this case in the next schemes or in the argumentative square above. It is however important to understand that arrows pointing upwards are possible. Single arrows are uniquely used vertically between α and β and/or γ and δ.

4. The fourth is “in competition with”. An arrowless line illustrates this relationship. The line may be topped with a < sign between the weaker and the stronger components. Arguments and conclusions are in competition in a dialectical tier, but the force of arguments is not a personal evaluation establishing who the winner is. The argumentative force is determined by the way linguistic markers encode that a clause is stronger than another. For example, “argument A but argument B” encodes with “but” that B is stronger than A (see Ducrot, 1972 on “mais” in French). This line appears only between α and γ and the sign for the argumentative force < or > will be drawn according to cases and to the linguistic markers used.

With this in mind, let us list the four theoretical possible triangles using three of the four poles and the relationships between poles.

¹⁶ Numerous details can be clarified and adjusted here, thereby allowing for different forms of the argumentative square (direction of arrows, relationship between poles in certain cases, etc.). But going deeper would exceed a reasonable size of this contribution.
Example of Case I: \((\alpha)\) the sun is shining but \((\gamma)\) the temperature is low [implicit \(\beta\): the temperature should be high]

Example of Case II: \((\alpha)\) the provisory dam stood firm, even though \((\gamma)\) the flow was thrice as much as usual [implicit \(\delta\): the provisory dam should not have stood firm]

Example of Case III: \((\alpha)\) The sun is shining but \((\delta)\) I’ve decided to stay at home [implicit \(\beta\): I’m supposed to not stay at home]
Example of Case IV: (β) He should buy this car, even if (γ) it is expensive [implicit δ: he should not buy this car].

These cases may be somewhat similar. This is the reason why we need to reintroduce here the nature of the different clauses (see sections 1 and 2 above) in order to understand which case is relevant for the analysis.

As shown earlier, components of an argumentative cell can be of many different natures (facts, opinions, etc.). This is important to take into account because we think that the same linguistic devices used in the first clause can construct two different argumentative triangles depending on the following clause. Example (6) contains an imposed Claim (‘I’ll go out’) while example (7) contains new Data.

(6) Even if it is raining, I’ll go out.

(7) Even if it is raining, roads are dry

What may follow examples (6) and (7) can therefore be very different: whereas example (6) could end there and be seen as complete, example (7) invites participants to solve the incompatibility of the two pieces of data by formulating an explanation meant to understand how it occurred or what is problematic in the reasoning.

Now, facts can occupy positions β or δ and be “justified” by respectively α or γ. In such cases, we cannot speak about argumentation anymore: it is rather an explanation [or a pseudo-explanation—see (Herman, 2015)]. The fact is explained (hence the label explanandum) and not defended in this case. By contrast, opinions can also be used in positions α or γ, which are not “natural positions” for opinions, but we must take into account that: (i) these opinions may have been justified earlier in the text and serve here as agreed-upon arguments that can be used in a new reasoning; and (ii) a number of opinions can be considered as already shared or agreed-upon by the audience and therefore serve as starting points of an argumentation, even if they lack explicit justification.

Finally, claims are not necessarily justified by arguments: this is the case of “I’ll go out” in example (6) above (= imposed claim). A conclusion, by contrast, is justified by an argument (hence its name, which underlines an end point). Let us recall that the difference between a claim and a conclusion is the following: a claim is (or can be in a position to be) defended by the speaker who is committed to it, whereas a conclusion can be the opponent’s opinion or a consequence of a weak counter-argument. It follows that a claim—even if it is an imposed claim—cannot be in positions α or γ. Conclusions, by definition, cannot occupy these positions either.

Linguistic instructions delivered by discourse markers are important in this model. Let us take the two following examples:

(8) Even if it is raining, I’ll go out

(9) It is raining, but I’ll go out

While similar, (8) and (9) are not equivalent. The difference is subtle, but if we consider the cognitive processes responsible for their interpretation, clause after clause, input after input, we
cannot dodge this question. When a clause begins with “Even if”, the addressee can (and is in fact instructed to) expect that what follows “even if” is a weak counter-argument and that the next clause after that will be the opposite of the conclusion triggered by the weak argument. Hence, this limits the structure of the cell to three possibilities: the argumentative square or only two argumentative triangles (case I or case III). In example (9), the first clause, in isolation, cannot be understood as a part of an argumentative move and only the introduction of the connective “but” signals that the preceding clause was a counter-argument which is conceded. The rhetorical impact of an anticipation move (8) or a revision move (9) may be important to underline for the analysis of rhetorical options in a case.

For example, when “Despite” is in α position, the argumentative process can be described as follows for the theoretical example:

- α is a counter-argument to either γ or δ
- α leads to a counter-conclusion β
- β will be the opposite of either γ or δ
- the content of β will be determined by the content of either γ or δ

We cannot, of course, exhaustively describe each process triggered by different linguistic markers in different poles of an argumentative dialectical cell, but the idea Oswald and I wanted to highlight is the importance of these processes. It is significant to understand the role of these linguistic markers on two levels: giving instructions to understand how an argument is structured and triggering rhetorical effects by the choice of these markers and their occurrence in the argumentative cell.

Let us try, from this complex theoretical frame, to analyze an example given by Freeman (2011), which mobilizes these restrictions.

(10) (1) <Mrs. Wilson’s will directs that her entire estate go to charity.> So, presumably, (2) <her daughter will inherit nothing from her mother, >unless ® <Mrs. Wilson has made a supervening will leaving her daughter a share in her estate. >But (3) <Mrs. Wilson made no later will.> (4) <A thorough search of her personal effects found no such document.> (Freeman, 2011, p. 25)

This example can be described as two imbricated argumentative cells: a complete argumentative square and an argumentative triangle. The first argumentative cell may be described as follows:

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17 This last point has not been commented on, but it’s important to see that, despite the argumentative triangle that ties α and β, the content of conclusion β is not directly provided by the content of α. It is indirectly provided by the contrary of what the speaker has chosen to say in position γ or position δ.

18 If our model is well founded, then the last step of the cognitive process is to pinpoint the function of each component in line with its position, nature, and the instructions bearing on it. The idea is that we could define each label of function by the preceding notes. For example, what is a counter-argument? A clause is a counter-argument if and only if (a) it occupies the α pole of a dialectical argumentative cell, (b) another clause occupies the β pole; (c) either a stronger argument occupies the γ pole (argumentative square) or an imposed claim occupies the δ pole (argumentative triangle—case III). Similarly, a clause is an expected conclusion if and only if (a) it occupies the β pole; (b) another clause is occupying the α pole; (c) either new data occupies the γ pole or a counter-claim occupies the δ pole; (d) either the γ pole or the δ pole (according to point c) is the contrary of the expected conclusion in β.
The Warrant may be “generally we can inherit from someone if a will stipulates our name as heir”; and the Backings can be notarial rules applying in the situation.

The second argumentative cell is based on (R) which is immediately invalidated (3) by an *explanandum* and a justification of (3) by (4). The result is a type-IV argumentative triangle: (R) occupies the pole β, non-R (=3) the pole δ and (4) is an argument supporting δ (pole γ).

In such a case, the interest of this example could be questioned: indeed, the refutation through (R) is immediately refuted, which nullifies the whole process. One could say that it reinforces the probability that there is no way out of (2).

Let us see another example from Freeman (2011):

(11) (1) <The accused is guilty of robbing the bank.> (2) <He needed to pay his gambling debts.> (3) <Sworn witnesses testify that he had talked about stealing money.> (4) <He owned a gun and ski mask.> (5) <He knew the bank would be practically deserted in the early afternoon.> (6) <Most of the bills stolen were found in his garage.> Yet, ® <witnesses will testify that the accused was no where near the bank when the robbery occurred,> but (7) <all these witnesses have been bribed.> (p. 26)

With this new example from Freeman (2011), I will address—superficially, for the subject deserves to be carefully examined in other publication—the question of the complex argumentative structures. I identify two argumentative cells—in other words, two claims, which turn out to be identical.

For the first one, the Claim is supported by several arguments. The Claim (1) is backed up by a convergent argumentation. (2) presents a fact that is *a priori* true. The Warrant linking (2) to (1) is that the need for money may lead to illegal actions. The implicit Backing refers to the knowledge of similar cases, that is to say to a field of experience based on a general knowledge of human behavior. 19 (3) presents a Datum, supported by a BackingD (“Sworn witnesses”). (4) is another *a priori*-true fact, out of any other context (such as a police report for instance). The same applies to (5) and (6).

Each argument mobilized here triggers—in my opinion—Warrants and Backings that link the arguments to the Claim. Another possibility would be to imagine a Macro-Warrant or a Meta-Warrant linking the combined evidence to the conclusion. This question echoes the difference between convergent and linked argumentation (Freeman, 1991, 2001; Goddu, 2009; Snoeck Henkemans, 1992; Walton, 1996). The idea to develop and test here is that linked argumentation only offers a Warrant and a Backing relying on the whole set of arguments to the Claim, whereas converging argumentation, as in here, mobilizes several Warrants and Backings. Here, the Rebuttal (R), justified by the evidentiality (witnesses) (pole γ), could invalidate the Claim (1).

19 It is an assumption in the evidentiality theory of Aikhevald (cf. above)
But this first complex argumentative cell is joined to another. (R), which should invalidate (1), is in turn invalidated by a stronger argument (pole $\gamma$ of a second argumentative square) that leads to the rejections of the aforementioned testimonies. And, therefore, it nullifies the invalidation of the Claim (1) initiated by (R). Note that (7) is an a priori true Datum: the fact is not justified.

9. Conclusion

Many elements mentioned here should be refined and examined more thoroughly, but the ambition of this talk was to give an overview of an argumentative theory revised through the eyes of a linguist analysing natural language argumentation. I focused specifically on the consequences for the starting points of argumentation and the bias of objectivity that happen under particular circumstances, according to the theme of the conference.

As noted in the introduction, this “modified double Toulminian layout” model should be tested on natural examples and broader corpuses. However, in my opinion, the proposal I make here, by dissociating the function and the poles, has the benefit to:

- Cover every possibility of counter-discourses integration:
  - Concession (“even if”) with or without a stronger argument
  - Refutation (“unless”)
  - Disagreement (pole $\beta$ vs $\delta$)

- Circumscribe a maximal argumentative cell as a strong unit which enables us to deal with the cases of complex argumentative combinations, through four zones of cell development:
  - When the Rebuttal is refuted (right development of the square)
  - When a subordinate argumentation that is upstream-oriented is developed (i.e. supporting a Datum that already supports a Claim)
  - When an argumentation is developed downstream (i.e. using a Claim as an argument for a new argumentation)
  - When a counter-argument that could be used as a concession is invalidated rather than leading to a concession (left development of the square)

- Refine the definition of a Backing as an evidential component of argumentation

- Refine the definition of Data as not only facts but starting points of argumentation

- Anchor Data with an evidential Backing, which is optional

In brief, I argue that this refined model of Toulmin’s layout helps to identify starting points of argumentation, and study their nature and their potential evidential support, in order to understand rhetorical effects of speaker’s choices in this matter. This model enables us indeed to observe the way in which these starting points constrain the audience to admit facts as true or
opinions as shared. To me, the original dialectical part of Toulmin’s layout is better integrated and flexible enough to consider many naturally occurring argumentations.

These are the reasons why this adapted version of the Toulminian tool looks quite promising to me, both to account for argumentation in a descriptive way and to draw attention to some enlightening aspects that persuasive mechanisms reveal when studied in a cognitive, linguistic and social perspective, a perspective that I wish to develop with my colleague Steve Oswald.

References


20 In my opinion, this form of discursive presupposition (de Saussure, 2014) seems to presume objectivity on the speaker’s part, which can be feigned or may skew the argumentative debate. Since I am a specialist of monologal discourse rather than debate, I will simply suggest this: It seems to me that imposing a global agreement on an opinion or the truth of mentioned facts is an important bias in any debate. If, indeed, the contradictor does not share in the supposedly collective agreement or if he is not familiar with the facts that are being referred to or does not know them as false, he may expose himself to a form of symbolic social isolation (the corresponding reasoning would be: “I disagree with the doxa. Therefore, what will be the effects if I publicly question it, including the effects on my own image?”). The bias also implies that the contradictor loses the high ground on the debate, because he has to make do with pieces of information that are unknown to him and that he is unable to contradict or to check.


