

Burdens of Persuasion and Proof in Everyday Argumentation

The concept of burden of proof is fundamentally important in argumentation studies. We know, for example, that it is very closely related to, and necessary for the study of informal fallacies, like the fallacy of argument from ignorance. But procedural methods for dealing with issues of burden of proof in argumentation have been worked out and applied in most detail in the field of law. There is controversy, however, concerning the extent to which legal methods for defining and determining burdens of proof can be applied to the study of problems of burden of proof arising in everyday conversational argumentation, and other context like forensic debate.

In the recent literature doubts have been expressed about whether the model of burden of proof in law can be transferred to the study of how burden of proof operates in everyday conversational argumentation. In this paper we argue that the two different settings of argument use share an underlying dialectical structure that brings out some common elements that are useful to know about with regard to studying burden of proof. We argue that knowledge of these common elements enables us to derive many important lessons for argumentation theory as applied to nonlegal settings

Even in law, burden of proof is a slippery and ambiguous concept. Law is divided on how precisely to define burden of proof. Some experts in law distinguish between two types of burden of proof, whereas others take the view that there are three types. We are not in a position in this paper to attempt to give any answer to the question of how burden of proof should be defined or ruled on in law. Still, we think that some of the ways law has worked out for dealing with issues of burden of proof, over a long tradition of practical experience, are useful for building a model of burden of proof can be useful for helping us to analyze and evaluate everyday conversational argumentation outside the legal setting. In this paper we present such a model, and argue that it is structurally similar to the concept of burden of proof used in law in some interesting and important ways, but also different in certain ways.

1. Doubts about Transference from Legal Argumentation

Hahn and Oaksford (2007) have argued that the notion of burden of proof has been inappropriately extended into argumentation studies from its proper domain of application in law. They describe this extension as a “hasty transference” of legal concepts to less structured contexts of everyday conversational argumentation, citing Gaskins (1992) and Kauffeld (1998) as supporting their view (2007, p. 40). Kauffeld (1998, p. 246) argues that the procedural formality of courtroom argumentation has been responsible for the lack of progress in investigating burden of proof in everyday conversational argumentation outside the legal setting.

On Hahn and Oaksford’s description of the historical background, Whately is accused of being the culprit who first effected the attempted transference of the legal notion of burden of proof through his introduction of the notion of burden of proof in his writings on rhetoric. They cite difficulties and confusions in the way burden of proof is understood and operates in law. Among the chief items of evidence for their view, Hahn and Oaksford cite the historical analysis of Gaskins (1992) to show how the US Supreme Court of the Warren era used creative shifting of burden of proof as a vehicle for progressive social change (p. 42). Gaskins (1992, p. 3), sees the argument from ignorance as forming the tacit

structure of an increasingly common style of public argument: “I am right, because you cannot prove that I am wrong”. He links the argument from ignorance to the way burden of proof is used as a device in law, characterizing burden of proof as “the law’s response to ignorance, a decision rule for drawing inferences from lack of knowledge”(p. 4). Gaskins claims that burden of proof works in law as a shadowy device used by skillful advocates in legal battles to direct arguments from ignorance against each other. On his view, public argumentation is deteriorating badly through the use of shadowy devices of burden-shifting and arguments from ignorance.

In a rebuttal of Gaskins views about burden of proof, however, Allen (1994) showed through many examples of cases how American evidence scholars have studied burden of proof in depth and have built a body of knowledge about how it works in legal reasoning about evidence. Allen showed (1994, p. 629) that in the common law system, burden of proof is the tool for structuring the orderly presentation of the evidence, and that since the defining trait of litigation is the problem of arriving at a decision under conditions of uncertain knowledge (p. 633), argument from ignorance is a legitimate form of argument in that setting. Arguments are evaluated by standards of proof, like preponderance of the evidence, that are not shadowy but precise. He argues that standards of proof are well articulated and made known in advance to all participants in a trial, and that they work in a trial in a precise way to moderate the argumentation on both sides in a way that is fair to the litigants and that allows the evidence on both sides to be presented.

2. Wigmore’s Example

Wigmore (1981, p. 285) has a simple example of burden of proof in everyday conversational argumentation. It is interesting to note that the example is a three party dialogue. The two opposed parties A and B are at issue on any subject of controversy, not necessarily a legal one, and M is a third-party audience or trier who is to decide the issue between A and B.

Suppose that A has property in which he would like to have M invest money and that B is opposed to having M invest money; M will invest in A's property if he can learn that it is a profitable object and not otherwise. Here it is seen that the advantage is with B and the disadvantage with A; for unless A succeeds in persuading M up to the point of action, A will fail and B will remain victorious; the “burden of proof”, or in other words the *risk of nonpersuasion*, is upon A.

This example is used by Wigmore to show that the situation of the two parties is very different. The risk of failure is on A, because M will fail to carry out the action that A is trying to persuade him to carry out if M remains in doubt. Moreover, M will remain in doubt unless A brings forward some argument that will persuade him that investing in A’s property is a profitable object. In other words, B will win the dispute unless A does something. As Wigmore points out however (p. 285), this does not mean that B is “absolutely safe” if he does nothing. For B cannot tell how strong an argument A needs to win. It may be that only a very weak argument might suffice. Therefore to describe burden of proof in this example, Wigmore calls it the risk of nonpersuasion, describing it as “the risk of M’s nonaction because of doubt”. The example shows that the burden of proof is this risk that falls on one side or the other in the dispute. In this example, it falls on A. This

example is a very good one to help us grasp in outline basically how burden of proof works in everyday conversational argumentation: “this is the situation common to all cases of attempted persuasion, whether in the market, home, or the forum.”(Wigmore 1981, p. 285). However, there are several problems with it that need to be examined.

The first problem with Wigmore’s example with respect to studying burden of proof in it is to classify the type of dialogue that it is supposed to represent. To determine whether Wigmore’s example best fits the framework of a deliberation dialogue or persuasion dialogue, we have to look at the characteristics of each of these two types of dialogue and perhaps also contrast them with other types of dialogue of the basic types described in (Walton and Krabbe 1995). The six basic types of dialogue recognized there are persuasion dialogue, inquiry, negotiation dialogue, information-seeking dialogue, deliberation, and eristic dialogue.

The kind of legal argumentation found in a trial would most likely best fit the framework of the persuasion type of dialogue. But there is also evidence that the example could be seen as a deliberation, because the argumentation in it is supposed to lead to a decision about action, namely the action of M investing the money. But burden of proof works differently in persuasion dialogue than in deliberation dialogue. Deliberation dialogue arises from the need for action, as expressed in a governing question formulated at the opening stage, for example ‘Where shall we go for dinner tonight?’. Proposals for action arise only at a later stage in the dialogue (McBurney *et al.* 2007, p. 99). There is no burden of proof set for any of the parties in a deliberation at the opening stage. However, at the later argumentation stage, once a proposal has been put forward by a particular party, it will be reasonably assumed by the other participants that this party will be prepared to defend his proposal. One participant can ask another to justify a proposition that the second party has become committed to. But when the second party offers the justification attempt, the dialogue shifts into an embedded persuasion dialogue in which the second party tries to persuade the first party to become committed to this proposition by using an argument.

A key factor that is vitally important for persuasion dialogue is that the participants agree on the issue to be discussed at the opening stage. Each party must have a thesis to be proved. This setting of the issue is vitally important for preventing the discussion from wandering off and never concluding, or by shifting the burden of proof back and forth and never concluding. In deliberation dialogue however, the proposals are not formulated until a later stage (Walton 2009). It makes no sense to attempt to fix the proposals at the opening stage, because they need to arise out of the brainstorming discussions that take place after the opening stage. Burden of proof is only operative during the argumentation stage in relation to specific kinds of moves made during that stage, and when it does come into play there is a shift of persuasion dialogue which allows the appropriate notion of burden of proof to be brought in from the persuasion dialogue.

Wigmore tells us in the example that A would like to have M invest money in his property, and that B is opposed to having M invest money. This seems to make the argumentation in the example fit a deliberation type of dialogue, where A is making a proposal to M invest money in his property, while B is making the alternative proposal that M not invest money in this property. On the other hand, there are three significant pieces of evidence that persuasion dialogue is involved. The first piece of evidence for this interpretation is Wigmore’s statement that M will invest in A’s property “if he can learn that it is a profitable object and not otherwise”. This suggests a persuasion dialogue in which there is a conflict of opinions concerning whether a proposition is true (acceptable)

or not. The proposition at issue is whether investing money in the property will be profitable or not. The proper type the dialogue for resolving such conflicts of opinions is the critical discussion, or persuasion type of dialogue. A second piece of evidence that the example is a persuasion dialogue is Wigmore's description of the example when he tells us (p. 285) that the desire of A and B "is to persuade M as to their contention". A third piece of evidence is that Wigmore equates the burden of proof in his example with the risk of nonpersuasion, suggesting perhaps that the persuasion type of dialogue better represents the setting he has in mind.

There is also evidence of a dialectical shift in the example from deliberation dialogue to persuasion dialogue. This type of shift is quite common in situations where two parties are having a deliberation dialogue and each party has put forward a proposal it is advocating is representing the best choice on what to do. But as each side puts forward its proposal, it gives all kinds of reasons for accepting this proposal as a good idea, based on factual considerations. For example supposing two parties are on a bicycle path are deliberating about which bike path to take next at a fork in the road, and one party says there is construction along the path leading from the left side of the fork, while the other claims there is no construction along that path. The discussion started out as a deliberation, but then shifted to a persuasion dialogue concerning the factual issue of whether there is construction on that path or not.

The issue of which type of dialogue Wigmore's example can best be seen as fitting is highly controversial. Exponents of the deliberation model of dialogue as the most important setting for burden of proof in everyday conversational argumentation (Kauffeld 1998) are likely to portray it as an instance of deliberation, because basically it is about taking a decision for action in a situation requiring choice. On the other hand, as we have seen, there is evidence that Wigmore would see it as being of the same type of dialogue is the kind of argumentation used a legal trial, namely persuasion dialogue. The best analysis is to see it as a shift from deliberation to persuasion.

3. Continuation of the Example

The problem with trying to use the example to derive any lessons from it about burden of proof in everyday conversational argument as opposed to legal argument is that the example itself is too short. To study burden of proof in a legal case, we would need a more detailed example in which arguments are put forward on one side and critically questioned or counterattacked by the other side. To remedy this defect, let's extend the example by putting some argumentation that might be used in it in the form of a dialogue.

A: I have heard from an expert town planner that the value of property in that area will increase.

B: This expert town planner is a biased source. He is your brother-in-law.

A: Yes that's true, but what he's saying is right because many other experts agree with him.

We can imagine this dialogue carrying on with each side taking its turn to present arguments and counter-arguments, but even this much of the dialogue is enough to bring out some features of burden of proof of interest.

The first thing to note is that this part of the dialogue looks like a typical persuasion dialogue in which there is a conflict of opinions about whether the investment will be

profitable or not, and each side offers reasons to support its viewpoint. At his first move, A puts forward an argument from expert opinion, and B attacks this argument using argument from bias. The attack is based on the implicit premise that somebody's brother-in-law is a biased source. In this instance, the assumption is a plausible one, and hence the counterargument from bias casts doubt on the preceding argument from expert opinion. At the next move, A concedes the allegation of bias, but argues that even so the argument from expert opinion is sustainable because other experts agree with the one cited in the argument. This extension of the argumentation in Wigmore's example looks very much like a typical persuasion dialogue, or critical discussion type of argumentation. If that interpretation of it is justified, it would be evidence for the dialectical shift interpretation.

In (Walton 1988) global burden of proof that applies over all three stages of a dialogue was distinguished from local burden of proof that applies only at states during the argumentation stage. The second thing to note is that there is a global burden of proof distribution that is set in place at the opening stage of the dialogue that is necessary to know about in order to evaluate the argumentation that takes place in the dialogue. This global burden of proof could be found in our example in the following way. A has a positive thesis to prove, namely the proposition that investing in this property will be profitable. A has to overcome M's doubts about this proposition before he will take the action of investing in the property. B, on the other hand, has no positive thesis to be proved in order to win the dialogue. He doesn't have to prove that the proposition that investing in this property will be profitable is false, although if he did prove that proposition, he would win the dialogue. But what he needs to do is less than that. All he has to do is create some doubts on whether the investment will be profitable. More precisely, he needs to do even less than that.

Wigmore (1981 p. 286) did pose the question of what the differences are between burden of proof in litigation and burden of proof "in affairs at large" outside the legal setting. His answer was that the procedures and penalties are different in litigation, but these differences are minor compared to what he called a single "radical difference". He called this difference (p. 286) "the mode of determining the propositions of persuasion which are a prerequisite" to the actions of the third-party trier (audience). What did he mean by this? Basically he meant that there are laws of pleading and procedure which subdivide groups of data and assign these subgroups to one or the other party as prerequisites for getting a favorable outcome from the trier. For example the law defines what needs to be proved (the elements) in order for the prosecution to win in a murder trial, usually killing and guilty intent. The law also specifies what needs to be shown by the defense in order to persuade the tribunal to reverse its action, that is, the law specifies exceptions that constitute an excuse or justification. In other words, on Wigmore's view, burden of proof works basically the same way in law as in arguments on practical affairs outside of law, except that law narrows the groups of propositions that need to be proved for one side to obtain a favorable ruling of the trier, and kinds of arguments that the other side can use to reverse a favorable ruling.

According to Wigmore's description of the example, M will remain in doubt unless A brings forward some argument that will persuade him that investing in his property is profitable. In other words, according to the example, B doesn't have to do anything at all in order to win the dialogue. In short, the argumentation in this example has the same structure of burden of persuasion as a legal trial, where burden of persuasion is set at the opening stage, and determines what each party needs to do in order to win when the dialogue reaches the closing stage.

4. Kinds of Burden of Proof in Law

According to *McCormick on Evidence* (Strong 1992, p. 425), the term ‘burden of proof’ is ambiguous, covering two different notions, burden of persuasion and burden of production. The latter is sometimes also called the burden of producing evidence or the burden of going forward with evidence. The burden of persuasion can be described as an obligation that remains on a party to a dispute for the duration of the dispute, and that once discharged, enables the party to succeed in proving his claim, resolving the dispute. According to Wigmore (p. 284), “The risk of non-persuasion operates when the case has come into the hands of the jury, while the duty of producing evidence implies a liability to a ruling by the judge disposing of the issue without leaving the question open to the jury’s deliberations.” The burden of persuasion never shifts from one side to the other during a trial. It appears, however, that the burden of production can shift back and forth as the trial proceeds.

Fleming (1961) has carefully drawn the distinction between the burden of persuasion, and the burden of production of evidence. The usual requirement of burden of persuasion in civil cases is that there must be a preponderance of evidence in favor of the party making the claim, that is, the proponent, before he is entitled to a verdict (Fleming 1961, p. 53). This requirement is usually explained as referring not to the quantity of evidence or the number of witnesses but to the convincing force of the evidence (Fleming 1961, p. 53). In criminal cases (54), the burden is to show the guilt of the accused beyond reasonable doubt. This test is very rare as applied to civil cases, but there is an intermediate test (54) that calls for clear and convincing evidence. The burden of production first comes into play at the beginning of the trial. If neither party offers any evidence at the trial, the outcome is that one party will lose. To use Wigmore’s phrase, this party may be said to bear the risk of non-production of evidence.

Williams (2003, 168) contrasts the burden of production with tactical burden of proof, which refers to the burden resting on a party who, if he does not produce further evidence, runs the risk of ultimately losing on that issue. According to Williams (2003, p. 168) ruling on the burden of production involves a question of law, whereas the tactical burden of proof is “merely a tactical evaluation of who is winning at a particular point in time”. According to Prakken and Sartor (2009, p. 227), the distinction between burden of production and tactical burden of proof is usually not clearly made in common law, and is usually not explicitly considered in civil law countries, but is relevant for both systems because it is induced by the logic of the reasoning process.

Prakken and Sartor (2009, p. 228) have built a logical model of burden of proof in law, and their clarification is helpful. The burden of persuasion specifies which party has to prove some proposition that represents the ultimate probandum in the case, and also specifies to what proof standard has to be met. The burden of production specifies which party has to offer evidence on some specific issue that arises during a particular point during the argumentation in the trial itself as it proceeds. Both the burden of persuasion and the burden of production are assigned by law. The tactical burden of proof, on the other hand is decided by the party putting forward an argument at some stage during the proceedings.

It is a familiar aspect of burden of persuasion that various different levels are set for successful persuasion, depending on the nature of the dispute that is to be resolved by

rational argument. Here we have the familiar standards so often cited in connection with burden of persuasion: scintilla of evidence represents a weak standard, preponderance of evidence a stronger one, clear and convincing evidence still a stronger one, and proving something beyond a reasonable doubt represents the highest standard. In a criminal prosecution, the party who has the burden of persuasion of the fact must prove it according to the standard of beyond a reasonable doubt. In the general run of issues in civil cases the burden of persuasion is fulfilled by a preponderance of evidence, but in some exceptional civil cases it is fulfilled by clear strong and convincing evidence (Strong 1992, p. 437). There is some controversy about how these standards should be precisely defined. For example, what it means to say that the proof standard is one of preponderance of the evidence, or greater weight of the evidence is open to dispute. According to *McCormick on Evidence* (Strong 1992, p. 438) preponderance of evidence means that the argument offered is more convincing to the trier than the opposing evidence. One other standard deserves mention here. Probable cause is a standard of proof used in the U.S. to determine whether a search is warranted, or whether a grand jury can issue an indictment.

Farley and Freeman (1995) presented a computational model of dialectical argumentation under conditions where knowledge is incomplete and uncertain. This model has the notion of burden of proof as a key element, where it is defined as the level of support that must be achieved by one side to win an argument. Under this account, burden of proof has two functions (Farley and Freeman 1995, p. 156). One is to act as a move filter, and the other is that to act as a termination criterion during argumentation that determines the eventual winner of the dialogue. The move filter function relates to the sequence of intertwined moves put forward by the two parties, often called speech acts, over the sequence of dialectical argumentation. When one party puts forward what Farley and Freeman call an input claim (p. 158), there is a search for support for that claim from the input data. This process has been completed when the claim is supported by propositions from the input data. If no support can be found, the argument ends with a loss for the side (p. 158). Thus on their analysis, fulfilling any burden of proof requires at least one supporting argument for an input claim. If side one is able to find support for the claim it made, control either passes to other side, which then tries to refute the argument for the claim using both rebutting or undercutting arguments. If an undercutting move is successful, it may result in a change to the qualification of the claim originally made, or even to the withdrawal of the supporting argument. Put in terms of the theory of van Eemeren and Houtlosser (2002), this back and forth argumentation is characteristic of the speech acts and rejoinders made by both sides during the argumentation stage. The goal of the proponent is to generate the strongest possible arguments for its side, and the goal of the opposing side is to respond to those arguments by making appropriate critical moves, like undercutters and rebuttals.

On the analysis of Farley and Freeman (1995, p. 160) burden of proof always has two elements: which side of the argument bears the burden, and what level of support is required by that side to fulfill that burden.

5. Burdens of Proof and Stages of Dialogue

The distinction between burden of production and the tactical burden is important in law because there are three parties involved in the typical kind of argumentation found in a legal trial, or perhaps even four in some cases, where there is a jury in addition to the judge.

As noted above, the burden of production comes into play because of the possibility of a ruling by the judge disposing of the issue without leaving the question open to the jury to decide. This is a complication which does not appear to arise in matters of burden of proof in everyday conversational argumentation. Indeed, in many examples of argumentation in everyday conversational argumentation there only seem to be two parties involved, the proponent puts forward some argument and a respondent who questions or criticizes it. In a persuasion dialogue of the type used to model this kind of everyday conversational argumentation, there are only two participants, the proponent and the respondent, although consideration has been given to including a third-party audience in models of persuasion dialogue (Perelman and Olbrechts-Tyteca 1989; Bench-Capon, Doutre and Dunne 2007). Hence the distinction between the burden of production and tactical burden of proof, although it may be very important in law, may not be so significant, or even significant at all when it comes to dealing with problems of burden of proof in everyday conversational argumentation. However, there is a fundamental distinction between two main species of burden of proof that is clearly important in law and that can be, and should be, applied to the study of burden of proof in everyday conversational argumentation. This distinction can be explained by defining some formal characteristics of argumentation in dialogue that are, we argue, common to both legal argumentation and everyday conversational argumentation.

A dialogue is formally defined as an ordered 3-tuple $\langle O, A, C \rangle$ where O is the opening stage, A is the argumentation stage, and C is the closing stage (Gordon and Walton 2009, p. 5). Dialogue rules (protocols) define what types of moves are allowed by the parties during the argumentation stage (Walton and Krabbe 1995). At the opening stage, the participants agree to take part in some type of dialogue that has a collective goal. Each party has an individual goal and the dialogue itself has a collective goal. The initial situation is framed at the opening stage, and the dialogue moves through the opening stage toward the closing stage.

The distinction between global and local burden of proof (Walton 1988) can now be defined more precisely. The global burden of proof refers to what has to be proved to remove the doubt that originated a dialogue, thus winning the dialogue. Global burden of proof is defined as a 3-tuple $\langle P, T, S \rangle$ where P is a set of participants, T is the thesis to be proved or cast into doubt by a participant and S is the standard of proof required to make a proof successful at the closing stage. The local burden of proof defines what requirement has to be fulfilled for a speech act, or move like making a claim, to be successful. The global burden of proof is set at the opening stage, but during the argumentation stage, as particular arguments are put forward and replied to, there is a local burden of proof for each argument that can change. This local burden of proof can shift from one side to the other during the argumentation stage as arguments are put forward and critically questioned. Once the argumentation has reached the closing stage, the outcome is determined by judging whether one side or the other has met its global burden of proof, according to the requirements set at the opening stage.

The type of dialogue that has been studied most intensively so far is the persuasion dialogue. The two participants are called the proponent and the respondent. There are two types of persuasion dialogue. In a dispute, the proponent has as her thesis a designated statement T and the respondent has as his thesis the opposite statement $\sim T$. In a dissent, only the proponent has a thesis, and the respondent has the goal of casting sufficient doubt on the proponent's thesis so that her efforts to prove it will fail. In the dissent, the

proponent's goal is to prove A, while the goal of the respondent is merely to show that the proponent's attempt is not successful. In the dissent, the respondent's goal is merely one of critical questioning rather proving. In a dispute, each side has what is called in law an ultimate *probandum*. It is this that will determine global burden of proof. Local burden of proof arises with respect to a move (speech act) made during the argumentation stage.

In the general theory of argumentation in dialogue, burden of proof is important at the global level of a dialogue as well as at the local level. At the global level, burden of proof pertains to a participant's goal, sometimes called his or her obligation, in a dialogue. But it does not necessarily apply to all kinds of dialogue in which there is argumentation. For example, in a negotiation, there seems to be nothing corresponding to global burden of proof, with emphasis on the term 'proof', as such, whereas in other types of dialogue, a participant's goal is to prove (or disprove) something. The investigation of burden of proof can only proceed by clearly distinguishing between local level burden of proof and global level burden of proof.

Finally, we briefly respond to the objection that arguments are often put forward in everyday conversational settings in a situation in which there has been no agreement beforehand on what the global issue of the dialogue is. Many examples might be cited of ordinary conversational exchanges that are brief and fragmentary, where there is no evidence at all that the participants have agreed to debate a particular issue, or have made any agreement on what standard of proof should be required for a successful argument. We might infer from such observations that trying to apply the distinction between global and local burden of proof in such cases is useless. The general issue is how we can apply abstract normative models that have a global as well as a local level.

The best counterargument is to say that analyzing informal fallacies requires both levels. Argument from ignorance is a case in point, and fallacies of relevance might also be cited. Whether an argument should rightly be considered relevant depends on the assumption that there is some issue set at the global level that it is supposedly relevant to. If we are examining an instance of an alleged fallacy of relevance, and there is no evidence of global level data, we have no basis for determining whether the argument in question really is fallacious or not. However, we would say that the existence of such common cases in short examples is not a good reason for rejecting the usefulness of applying normative models of dialogue to such cases, because relevance is determined in them by implicatures about the context of use (Grice 1975).

6. Conclusions

In this paper we have argued that in law there is an important distinction between global burden of persuasion that applies over the whole course of the trial, and local evidential burdens that apply during the argumentation stage of the trial. We have argued that this fundamental distinction applies also to everyday conversational argumentation. We distinguished different types of dialogue. Burden of proof is not a global factor in some of these types, like negotiation dialogue. We concentrated on the persuasion or critical discussion type of dialogue. We argued that although there are differences in the way burden of proof is managed in legal argumentation and everyday conversational argumentation, the distinction between global and local burden of proof is fundamental to both.

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