Interactive Virtue and Vice in Systems of Arguments: A Logocratic Analysis

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Abstract

The Logocratic Method provides a philosophical explanation of three purposes or goals that arguers have for their arguments: to make arguments that are internally strong (the premises follow from the conclusions, to a greater or lesser degree – greatest degree in valid deductive arguments), or that are dialectically strong (win in some forum of argument competition, as for example in litigation contests of plaintiffs or prosecutors on the one hand, and defendants, on the other), or that are rhetorically strong (effective at persuading a targeted audience). This article presents the basic terms and methods of Logocratic analysis and then uses a case study to illustrate the Logocratic explanation of arguments. Highlights of this explanation are: the use of a (non-moral) *virtue* (and vice) framework to explicate the three strengths and weaknesses of arguments that are of greatest interest to arguers in many contexts (including but not limited to the context of legal argument), the Logocratic explication of the structure of *abduction* generally and of *legal abduction* specifically, the concept of a *system of arguments*, and the concept of the *dynamic interactive virtue* (and vice) of arguments – a property of systems of arguments in which the system of arguments as a whole (for example, the *set of several arguments* typically offered by a plaintiff or by a defendant) is as virtuous (or vicious) as are the component arguments that comprise the system. This is especially important since, according to Logocratic theory (and as illustrated in detail in this paper), some arguments, such as abduction and analogical argument, are themselves comprised of different logical forms (for example, abduction always plays a role *within* analogical argument, and either deduction or defeasible modus ponens, always plays a role *within* legal abduction).

1 Proem

In this essay I present, illustrate, and explicate two ideas in the theory of argument. One is the idea of *systems* of arguments. The other is the idea of *virtue and vice* in arguments, in a non-moral but not unfamiliar, and easily grasped, sense of *virtue as instrumental excellence*, and *vice* as a *failure of instrumental excellence*. I offer this illustration and explication within the framework for the generation and explanation of arguments that I have developed called the *Logocratic Method*. Within the topical scope of this conference, my presentation of the Logocratic Method also explains the way in which there is a deep and explanatorily valuable connection between the concept of *evidence* and the concept of

argument, so that one may usefully refer to *deductive evidence, inductive evidence, analogical evidence,* and *abductive evidence.* Three of these types of evidence play a central role in the illustrative example I offer at the end of this essay.

This essay proceeds as follows. First, I summarize the basic structure of the Logocratic Method focusing on its deployment of the concept of virtue as instrumental excellence. I then articulate the concept of a *system of arguments.* Finally, I discuss a case that illustrates how one may blend the concepts of virtue and system to perform a Logocratic explanation of an actual legal argument. I hope that this explanation will provide the reader with valuable tools in the theory, analysis, and practice of argument.

2   Basic Structure of The Logocratic Method and Logocratic Virtue

I construct the term *Logocratic*[2] from the Ancient Greek terms $\lambda o\gamma o\varsigma$ [*logos*] meaning, among other things, *argument*, and $\kappa\rho\alpha\tau o\varsigma$ [*kratos*] meaning, among other things, 'strength' (Compare the word *democracy*, the "strength of the *demos*.")

2.1   Argument, Proposition

A proposition is an abstract entity to which sentences of natural languages correspond. The abstraction is best understood by noting that the same proposition can appear in different natural languages. When proposition *P* appears in language 1 as sentence 1 (e.g., Ancient Greek, such as, *πάντες ἄνθρωποι τοῦ εἰδέναι ὀρέγονται φύσει.*) and in language 2 as sentence 2 (e.g., English, such as *All men by nature desire to know.*), there is a translation of that one proposition into two languages. A sentence is the incarnation of an abstract proposition. Put another way, a sentence is a token of which the corresponding proposition is the type. Of course, one can identify any proposition only as it occurs in some natural language. Because an argument is composed of propositions, it is also an abstract entity. As with propositions, one argument can be translated into different languages, and any given argument must appear in some natural language. We can mark the distinction between arguments, which are composed of propositions, and instantiations of arguments in some natural language, which are composed of sentences, as the difference between *argument types* and *argument tokens*, respectively.[3]

An argument is comprised of two sets of propositions that stand in a particular dyadic relation. One set is called *premises*. The other set is called *conclusions*. We may label the whole set of premise propositions *E* and label each individual premise $\varepsilon_1,\ \varepsilon_2,\ \varepsilon_3,\ \ldots\ \varepsilon_n$. We may label the whole set of conclusion propositions *H* and each individual conclusion $h_1,$

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[2] Throughout this essay I use a convention of using italics to name a word, letter, or phrase, as in *word* is the name of the word *word*, *Logocratic Method* is the name of the Logocratic Method. I use double quotation marks to indicate quoting an actual text or person (actual or hypothetical). Sometimes I use italics, as is also a convention, for emphasis. Context will indicate which is the use of a specific italicization.

[3] At least superficially, I commit myself here to an ontology of abstract entities – proposition-types and argument-types. However, I neither have nor offer any deep commitment to this realist ontology, and believe that the references I'm making to abstract entities could be re-cast into a rigorous nominalist explanatory framework. For a robust defense of realism about types (of expressions), see L. Wetzel (2009). For a rigorous anti-realist nominalism, see I. Scheffler (1979).

$h_2, h_3, \ldots h_n$. (The use of these premise and conclusion names reflects, and keeps before the Logocratic analyst the idea that, on the *evidential* conception of logic, premises of arguments are evidence for the conclusion as hypothesis—see the next section.) We may identify the binary relation in an argument between the premises and conclusions (mouthfully) as *is claimed, or can be taken to claim, to provide support for*. That is, an argument is a relation between one set of propositions (premises) that are claimed to provide, or can be taken to claim to provide, support for the other set of propositions (conclusions). We can describe in three ways the defining characteristic of the argument relation between premise set E and conclusion set H *is claimed, or can be taken to claim, to provide support for*. This is what Logocratic theory refers to as an *asserted-support conception of argument*, as opposed to an *actual-support* conception.

(1) We can say that the set of premises *is claimed, or can be taken to claim, to support for* provide *inferential support* for the conclusion. This means that if the premises are true (or otherwise warranted) they are claimed, or can be taken to claim, to provide support for *inferring the conclusion.*

(2) We can say that the premises provide *epistemic support* for the conclusion. This means that if the premises are *believed,* they are claimed, or can be taken to claim, to provide support for *believing* the conclusion.

(3) We can say that the premises provide *internal support* for the conclusion. This means that if the premises are *assumed to be true* (or otherwise warranted) they are claimed, or can be taken to claim, to provide support for inferring the conclusion. The paradigm of internal support, and a useful (perhaps) intuitive motivation for the term 'internal', comes from deductive argument. In a valid deductive argument, by definition, in any possible world in which all the premises are true, the conclusion must be true, regardless of whether the premises are true in the actual world. A valid argument whose premises are true in the actual world is a sound argument. The argument *All whales are fish, and Fido is a whale, therefore Fido is a fish* is valid but not sound, and it has the *same internal strength* as the argument *All men are mortal and Socrates is a man, therefore Socrates is mortal*, which is valid and (as far as we now know) sound. But it's very important to recognize that, in Logocratic theory, types of argument other than deduction – induction, analogy, and abduction -- can also have internal strength. It is a complex question whether these other types of argument can have *as much* internal strength as a valid deductive argument. Logocratic theory says that some analogical and some abductive arguments can, and that no inductive argument can.

Note that, according to Logocratic theory, the definition of 'argument' (on the asserted-support conception of argument, see above) itself draws on one of the three types of strength of argument, namely *internal* (or, synonymously for Logocratic purposes, *epistemic* or *inferential*) strength. To be an argument at all – an identity criterion of argument – is to claim to, or to be capable of being claimed to, have premises that provide internal (or epistemic or inferential) support for the conclusion.

2.2   Mode of Logical Inference or Logical Form

All arguments have a single *mode of logical inference* or *logical form*. I endorse an *evidential* conception of logic, according to which logic is the study of the *evidential relation* between the premises and conclusions of arguments.[4] Building on the evidential conception of logic, I conceive of an argument's premises as providing evidence for its conclusions, and I define an argument's *mode of logical inference* (or, its *logical form*) as the *evidential relation* between the argument's premises and its conclusion. Bringing together the asserted-support conception of argument (see section 2.1) and the evidential conception of argument, Logocratic theory says that, by definition, the premise set E *provides evidence for* and *is claimed, or can be taken to claim, to provide support (inferential or epistemic or internal) for* conclusion set H. There are exactly four modes of logical inference: deduction, induction, abduction (also, synonymously, *inference to the best explanation*), and analogy. As we will see, what distinguishes each of the four modes of inference irreducibly one from another (with a complexity I'll explain below) is the specific *pattern* of evidential support of conclusion by premises in each type of argument.

2.3   Rule

A *rule* is any proposition that has a conditional structure, either that of a monoconditional (usually referred to more simply as a "conditional"), as in *If [such and such] then [so and so]* or as a biconditional, as in *[such and such] if and only if [so and so]*. Notice that what we might call the surface grammar of a proposition may not reveal its deep-grammar structure as a rule. This is in fact the phenomenon of *rule-enthymemicity*, discussed in section 2.4. An example is the proposition A*ll men are mortal,* whose surface structure is a categorical assertion but whose deep structure (when the rule-enthymeme is properly interpreted, again, see section 2.4) is the conditional *If something is a man then that thing is mortal*. A *legal rule* is a rule that either has legal force (is backed by the requisite legal authority) in some jurisdiction or could have legal force if enacted in a jurisdiction. What makes a *possible* legal rule an *actual* legal rule is the mainstay of debate among theorists of the concept of law. Logocratic theory does not have a dog in that fight, literally or figuratively.

2.4   The Enthymeme

The Logocratic Method extends and adapts the Classical conception of the enthymeme (as a syllogism with an unexpressed but assumed premise) to *any rule or argument whose mode of logical inference is not explicit in its original mode of presentation.* Arguments offered by judges, lawyers, and other legal analysts are overwhelmingly enthymematic. Rarely is the full mode of inference (logical form) of such arguments explicit. Likewise, rules that guide these arguments, even when canonically presented in statutes, constitutions, and regulations (that is, with a fixed form of words, unlike rules promulgated in common law judicial opinions) are almost always (if not always) enthymematic, thus capable of being interpreted into their underlying logical form.

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[4] I extend Skyrms (2000) at 15 ("Logic is the study of the strength of the evidential link between the premises and conclusions of arguments.")

Usage note: The term *logical form* is more general than the term *mode of logical inference*. Both rule-enthymeme and argument-enthymemes can be interpreted to make their underlying *logical form* explicit (see the next section). Only argument-enthymemes have an underlying *mode of logical inference*, because rules are not inferences, and so do not instantiate any mode of logical inference.

2.5 The Fair Formal Representation of Enthymemes

2.5.1 Example: Mortal Socrates enthymeme

An undertheorized aspect of argumentation theory is the *criteria of adequacy of interpretation* for interpreting enthymematic rules and arguments into their *fair formal representation*. No argument encountered in natural language can be assessed for its characteristic virtues (I explain this concept below) until it is given a fair formal representation that makes its mode of logical inference (for argument-enthymemes) or its logical form (for rule-enthymemes) explicit. Consider for example:

(1) Men die, Socrates dies.

Is (1) an argument? If so, it's an argument-enthymeme, which also contains a rule enthymeme (namely, "Men die"). For the sake of argument (literally), let's call (1) *the Mortal Socrates enthymeme*. Both the *Mortal Socrates enthymeme* and the rule-enthymeme that it contains must be fairly formally represented in order to *evaluate the argument* as an instance of an argument in one of the four modes of logical inference.

2.5.2 Mortal Socrates enthymeme represented as a valid deductive argument

Suppose that one interprets the Mortal Socrates enthymeme as an assertion of the familiar "Socrates syllogism":

(2) ε_1 All men are mortal
         ε_2 Socrates is a man
         h   Socrates is mortal[5]

If one treats (2) as a fair formal representation of (1) *and* one regards (1) as a deductive argument, then one will conclude that (1), when properly interpreted, has the *characteristic virtue* of a deductive argument, namely, validity. The main point here is that one cannot evaluate the argument-enthymeme (or even determine that it *is* an argument-enthymeme) or a rule-enthymeme without giving the enthymeme in question a *fair formal interpretive representation*. From a Logocratic point of view, to interpret what might be an argument-enthymeme *as* an argument is to give the interpreted item *a fair formal representation.* The fair formal representation may be discovered by using these three heuristic questions: (i) Does it seem that the item being interpreted, when fairly represented is an *argument*? (If the answer is yes, it's most likely an argument-enthymeme.) If so, (ii) what are its

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[5] I label the premises of this argument ε_1, ε_2, and the conclusion as *h*, to keep before the Logocratic analyst the idea that, on the evidential conception of logic (see section 2.1), premises of arguments are evidence for the conclusion as hypothesis (see also the definition of *argument* in section 0)

premises, and what are its conclusion(s)? Often, but not necessarily, one of the premises of the argument-enthymeme will contain a rule-enthymeme (such as 'Men die' in (1), which is given a fair formal representation in (2) as *All men are mortal*). Finally, (iii) what is its mode of logical inference: deduction, induction, abduction, or analogy? (Note that this is an exclusive *or*; an argument-enthymeme can have only one of these inference modes, with a complication I'll discuss below regarding "dynamic interactive virtue.") If the enthymeme is a rule-enthymeme, then, according to the Logocratic Method, there are two interpretive questions that guide the fair formal representation of the rule-enthymeme: (i) what are the *elements* of the rule, and (ii) what is the logical structure of the rule in its underlying logical form? For example, the premise ε_1 in (2) can be understood as a rule in that it has the logical form of a conditional, whose elements are the set of all men and the property of being mortal, the rule linking the property of the former to the property of the latter.

The question *What is an argument-enthymeme's mode of logical inference?* is important in a way that is perhaps too rarely recognized in the argumentation literature. Consider (1) again.   The interpretation in (2) represents (1), the Mortal Socrates enthymeme, as a deductive argument and supplies an unstated (but perhaps intended to be assumed) premise that makes it valid.

2.5.3   Mortal Socrates enthymeme represented as an inductive argument

But mightn't the Mortal Socrates enthymeme be an abbreviated instance of *defeasible modus ponens* (as in, *This is Italian coffee, so it's good coffee.*), in which premise ε_1 is understood by the asserter of (1) to be a very highly confirmed inductive generalization, perhaps highly confirmed enough that one can use it in reasoning *as if* it was a true universal generalization capable of yielding valid deductive inferences? Interpreted in that way, (1) might be represented as a chain of two arguments:

$$(3) \quad \varepsilon_1 \quad x_1 \text{ is a man and } x_1 \text{ is mortal}$$
$$\varepsilon_2 \quad x_2 \text{ is a man and } x_2 \text{ is mortal}$$
$$\varepsilon_3 \quad x_3 \text{ is a man and } x_3 \text{ is mortal}$$
$$.$$
$$.$$
$$.$$
$$\varepsilon_{100,000,000} \quad x_{100,000,000} \text{ is a man and } x_{100,000,000} \text{ is mortal}$$

$$h_1/\varepsilon_{100,000,001}: \quad \text{all men are mortal}$$
$$\varepsilon_{100,000,002}: \quad \text{Socrates is a man}$$

$$h_2 \quad \text{Socrates is mortal.}$$

Here we have two arguments that are in a direct chain from premise ε_1 to conclusion h_2. The first argument in the chain is from premises ε_1 through $\varepsilon_{100,000,000}$ to conclusion h_1 (This mode of logical inference is *inductive generalization* – a term common to Logocratic theory and other theories of argument). h_1 has a *dual aspect* (as indicated by the slash in stating the proposition as $h_1/\varepsilon_{100,000,001}$), serving *both* as the conclusion of the first argument in the

chain and as the first premise of the second (and final) argument in the chain, which runs from premises $\varepsilon_{100,000,001}$ through $\varepsilon_{100,000,002}$ to conclusion h_2. (The second argument is an *inductive specification* in Logocratic terms, also referred to as *defeasible modus ponens*.) Note that it is a common practice in several argument domains, perhaps most importantly in the "hard" (that is, mathematically structured) empirical sciences, to treat very highly confirmed inductive generalizations as true universal generalizations that are capable of yielding valid deductive inferences.[6]

This example shows what Logocratic theory refers to as *enthymematic ambiguity*, the circumstance in which a given enthymeme can be fairly formally represented by more than one rule or argument whose logical form is explicit. Logocratic Method refers to the interpretive move from a rule-enthymeme to a fair formal representation (e.g., the move from 'Men die' to 'All men are mortal') as *rulification*. It refers to the move from an argument-enthymeme to its fair formal representation as *argufication*. In the example above, both (2) and (3) argufy (1) – if both (2) and (3) are fair formal representations of (1), then (1) is an ambiguous argument-enthymeme.

As that example also suggests, a crucial question for the evaluation of arguments that occur in natural language contexts is, *what are the criteria for a fair interpretive representation*? This is an undertheorized area of argumentation theory, and I cannot do more than sketch the start of an adequate theory. In a nutshell, criteria for the fairness of a rulification or argufication include, chiefly, interpretation in accord with the *charitably judged intent of the rule-enthymeme or argument-enthymeme utterer.* The injunction to interpret charitably is an interpretive norm.[7] Following Robert Nozick's trenchant critique of the dominant versions of the principle of charity among analytic philosophers of language,[8] we should understand the content of this interpretive norm as follows: On the Logocratic view, a rule-enthymeme or argument-enthymeme ought to be interpreted *to make as intelligible as possible the fact that in that context that person (or persons) promulgating the rule or making the argument promulgated it or made it.* This accords well with the Logocratic Method's deep reliance on pragmatics as a core part of its approach to the interpretation of rules and arguments. Unlike variants of the principle of charity that direct an interpreter to maximize agreement of the author of the text with the interpreter, or to maximize the rationality of the author, this principle seeks to reconstruct the enthymeme as reconstructed by a fair construction of the interpreter's intent. The "maximize agreement" (or maximize rationality) norm would, for example, seem always to counsel that one find another way to interpret an argument-enthymeme if it seemed prima-facie

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[6] See Dummett (1978) at 161 ("We have become so used to the cliché that inductive arguments establish their conclusions only with probability that we overlook the obvious fact that in practice we treat a great deal of inductive evidence as conclusive and a great many empirical statements which are not direct reports of observation as certain.")

[7] See Brewer (1988). This is a proto-Logocratic (Logocratic in basic method before I had explicitly framed the Logocratic Method) inferential account of interpretation.

[8] See Nozick (1993) at 151-59.

that it might be offering a deductively invalid argument. But some arguers do offer argument-enthymemes that are accurately represented as invalid, and a principle of fair formal representation should not hide that likelihood. If someone we know to be an expert logician writes

(4) Socrates is a man, so he's mortal

we might charitably reconstruct the argument-enthymeme (4) as (2), above, believing that the logician intended us to supply the "missing" first premise. But if a student in an elementary logic class writes (4) in response to the exam prompt, "Offer an example of a valid deductive argument," the principle of charity should lead us to interpret it as an invalid argument – doing so would make as intelligible as possible the fact that in that context the student making the argument made it.[9]

2.6   The Logocratic (non-moral) Virtue-Vice Framework

The Logocratic Method relies extensively on a conception of virtue, harking back to Aristotle's conception but also departing from it in significant ways. As I use the term, *virtue* means functional excellence. The basic framework we use is found in Aristotle's conception of *arete* (Greek: ἀρετή), translated as *virtue* or *excellence*.[10] If some object x is an F then the virtue of x as an F is that characteristic of x that makes x a good F. Put concisely: an object x's virtue reflects its good performance of the function of Fs. For example, consider an object (x) that is a knife (F). The virtues of a knife are those features that make it a good knife, such as having an appropriately sharp blade—we say "appropriately," because, as we can see on quick reflection, the virtue of a butter knife differs from that of a steak knife in the degree of sharpness required for functional excellence.

Many and varied kinds things can be "bearers" of virtue, that is, can properly be said to be virtuous (or not). Among this vast array of possibly virtuous (or vicious -- note that for every reference to virtue there is a corresponding conceptual antonym, "vice") items are implements such as knives, hammers, and spoons; institutions, such as schools, universities, and the legal institutions that comprise the "rule of law"[11]; professionals, such as lawyers, doctors, judges, and professors; and arguments, which is the central focus of the Logocratic Method used to generate and evaluate evidentiary arguments. As we will see, there are various kinds of purpose one might have for arguments, and those purposes

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9 There is also a Logocratic explanation of a special type of enthymeme that is of particular relevance to arguments about factual evidence of the sort that is the subject of legal doctrines of evidence. It's called the *evidentiary enthymeme*, a device that explains the most common kinds of evidentiary arguments used in not only in law courts, but in every domain in which factual evidence is offered. Presenting that concept is beyond the scope of this essay, but see the detailed discussion in Brewer (2011) and Brewer (2017).

[10] See ARISTOTLE (1999).

[11] See Raz (2009) at 224.

guide our judgments about what is virtuous, that is, what is functionally excellent in arguments.

2.6.1 Two Types of Logocratic Virtue: Mode-Dependent and Mode-Independent

There are various kinds of purpose one might have for arguments, and those purposes guide our judgments about what is virtuous, that is, what is functionally excellent in arguments. The Logocratic Method focuses on two types of virtue of argument, *mode-independent* and *mode-dependent*. The reference in these terms to "mode" is to the *mode of logical inference* of an argument. *Mode-independent virtues* are virtues or vices that are properties of any argument in any mode of logical inference -- deduction, induction, analogy, or abduction. *Mode-dependent virtues* are virtues that are properties that pertain to, are *character*istic of, one of the specific modes of logical inference.

2.6.2 Three Types of Mode-Independent Virtues

2.6.2.1 INTERNAL/INFERENTIAL/EPISTEMIC

Because virtue and vice are, as noted, functional excellences, the virtues and vices of arguments are tied to the function and purpose of argument as a *tool*. The *virtue* of an argument is *its strength as measured by the function the arguer has for it*. Arguers seek to do different kinds of things with arguments, and the Logocratic Method focuses on three of these goal-purpose-functions for argument. Arguers sometimes seek to make arguments that are *internally* strong (or, synonymously in my use, *epistemically* or *inferentially* strong). That is, they seek to make arguments in which, if the premises are true or otherwise warranted (for example, probabilistically warranted), they provide good reason for inferring or believing that the conclusion is true or otherwise warranted. As noted, the strongest possible internal strength an argument can have is found in valid deductive argument; whenever all the premises are true, the conclusion must be true (cannot conceivably be false).

2.6.2.2 DIALECTICAL

Sometimes arguers seek to make arguments that are strong in competition with other arguments. Arguments that are strong in this way are said to be *dialectically strong* (virtuous).[12] Dialectical competitions of arguments can take place within an arguer ("internal dialectical competition"), as for example in Descartes's *Meditations* and Wittgenstein's *Philosophical Investigations*. It can also take place between or among arguers ("external dialectical competition"), of which the arguments of plaintiffs or prosecutors and defendants and majorities and dissents in multi-member courts are paradigm examples. In legal dialectical competitions, many of the most important rules of competition of arguments come from rules of evidence and procedure, first among which are burdens (that is, presumption rules) of production and persuasion. One of the most philosophically significant examples of dialectical competition is found in *arguments about what is true*. Thus, the "external" dialectical strength of an argument—*its arguably accurate version of the world*—is a counterpart to the "internal" strength of an argument.

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[12] Phan Minh Dung offers an influential abstract model of dialectical competition of argument in the pioneering paper Dung (1995).

(For example, the counterpart to the difference between *valid* and *sound* deductive arguments.)

2.6.2.3 RHETORICAL

Sometimes arguers seek to make arguments that are persuasive to a particular target audience. Accordingly, the third measure of strength (or weakness), virtue (or vice), of an argument is its rhetorical strength (or weakness). Logocratic Method defines *rhetoric* as the attempt by a source rhetor to use argument to persuade a target audience either: (i) to accept a set of beliefs that the audience had not previously accepted, or (ii) to accept new reasons for accepting beliefs the audience had previously accepted, or (iii) to maintain the audience's acceptance of previously held beliefs in the face of a challenge to those beliefs, or some combination of (i), (ii), and (iii). [13] Legal arguers, including judges, lawyers, and law students (as well as arguers in many other settings) seek not only to offer arguments that are internally strong and dialectically strong (strong in competition with other arguments), but also are *persuasive* to one or more target audiences.

2.6.3 Independence of the Mode-Independent Virtue Criteria (with one important exception)

That the three types of mode-independent virtue are logically independent is an important part of Logocratic Theory. There is one significant exception to this independence. When there is a "referee" of a dialectical competition (e.g., judge, judge + jury, electorate), that referee must be *persuaded* to accept a dialectical competitor's abduction, e.g., a litigant's legal abduction. For example, in the *Howard* case, to be discussed below, the majority of members of the New Hampshire Supreme Court had to be persuaded to accept the *legal abductive conclusion* of the defendant company breached no legal duty when it fired the employee. The majority of that court did accept this legal-abductive conclusion. The rule for the winner of the *dialectical* competition of legal abductive arguments on a multi-member court is the rule that the argument that attracts a majority (or in some circumstances a plurality) of votes wins. But a majority (or plurality) of members of a court must also be *persuaded* to accept the legal abduction of one of the litigants (or at least to accept an argument whose conclusion confers a legal remedy desired by one of the litigants). In the *Howard* case there was, as there always is, and so the dialectical strength of that legal abduction was both dialectically strong and rhetorically strong *in its ability to persuade*. Nevertheless, it is a familiar phenomenon in American law that a dissenting argument, which by definition has lost the dialectical competition of competing legal abductions to the majority, may still be both aimed at and persuasive to a different target audience – a future reconstituted court, for example, or members of the bar who might be inspired to use the argument in future litigation.

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[13] The Logocratic conception of rhetoric differs importantly from Aristotle's, according to which *rhetoric* is defined as a theoretical discipline. See Aristotle RHETORIC (c. 335 B.C.E.; 2007) at 37-38. . (" Let rhetoric be [defined as] an ability, in each [particular] case, to see the available means of persuasion….") (citation omitted). From a Logocratic point of view, the referent of Aristotle's domain of rhetoric is the study of rhetoric, not its practice.

2.6.4   Four types of Mode-Dependent Virtue, the "Characteristic" Virtues

As defined above (section 2.2), an argument's *mode of logical inference* is the evidential relation between the set of the argument's premises and the set of the argument's conclusions.   Recall also that there are four fundamental, irreducible modes of logical inference. They are distinguished from one another by the relation that obtains between the premises of the argument and its conclusion when the argument yields the most warranted inference (that is, *internally strong*, as defined above, section 2.6.2.1) from premises to conclusion that it is logically capable of yielding.[14] Put another way, the *characteristic virtue* of a type of argument is that property or set of properties of that type of argument that makes it the best exemplar of that type. All four modes of logical inference are found in legal argument in general, in evidentiary legal arguments in particular, and indeed in arguments in every domain of argument. A clear understanding of the mode-specific virtues of an argument, that is, the characteristic virtues of a deductive, inductive, analogical, or abductive argument, is essential to the Logocratic Method as a type of philosophical abduction (explanation of the nature of argument) and to its application to assess the strengths or weaknesses (virtues or vices) of a particular argument. As noted above, it is easiest to state the characteristic, mode-dependent virtue of deduction. In a *valid* deductive argument, it is logically impossible that the premises should all be true while the conclusion is false. That is, the truth of the premises of a valid deductive argument provides *incorrigible evidence* for the truth of its conclusion. Validity is the characteristic virtue of a deductive argument. Some arguments are deductive but lack this virtue—they are invalid—and in that way, they are vicious. Explanation (abduction) of the characteristic virtues of the other three modes, induction, abduction, and analogy, requires a detailed look at the structures of those arguments. A detailed look at the structures of deduction, induction, and analogy is beyond the scope of this paper, though I will present very elementary features of each in order to illustrate the feature of system in my illustrative case.[15] I present in some detail the Logocratic explanation of abduction, in part as an act of theoretical self-awareness – the method rests on abduction, a type of argument including the abduction of abduction itself. I present that "meta-abduction" in the next sections.

2.6.5   The Logocratic Abduction of Abduction[16]

2.6.5.1   EXPLANATION AND POINT OF VIEW IN ABDUCTION

A successful meta-abduction—abduction *of* abduction —must have or rely on some cogent conception of the speech act of explanation. Central to the Logocratic account of abduction

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[14] We might say that the criteria of identity of each logical form is an ideal—something like a Platonic "Form". What distinguishes deductive, inductive, analogical, and inference to the best explanation arguments from each other are the *ideal forms* of those arguments.

[15] I offer a concise Logocratic explanation of the characteristic virtues of all four modes of inference in Brewer (2017) at 123-38. An even more recent treatment of the Logocratic account of abduction is in Brewer (forthcoming 2019). I offer a (proto-Logocratic – Logocratic in basic method before I had explicitly framed the Logocratic Method) account of both the structure and characteristic virtues and analogical argument (albeit without using that phrase) in Brewer (1996).

[16]   For prior, "proto-Logocratic" treatments of the abduction *of abduction*, see sources cited infra note 18.

is an account of *explanation* as the application of a *point of view*. (I draw the central idea for point of view from a model offered in the philosophy of science by Larry Laudan.[17]) Abductive reasoners in effect (and sometimes explicitly) invoke some point of view in order to try to *justify some claim*, a claim either about what we ought to believe (a theoretical claim) or about how we ought to act (a practical claim). Each claim is thus implicitly a claim that a certain belief is justified, and that its justification comes in significant part from the method the epistemic enterprise uses to produce it.

The Logocratic account of abduction fashions and relies upon an *enterprise conception of a point of view*.[18] This conception posits that an intellectual enterprise that produces distinctive justificatory claims may be dissected into three separate components: *factual judgments*, the distinctive *methods* that the enterprise uses to generate those factual judgments, and the distinctive *cognitive aims* that the methods are chosen to advance and serve. One invokes a point of view to justify some claim. To serve this justificatory function, the point of view is assumed to be a reliable method of achieving the (explicit or implicit) aims of some explanatory enterprise. (The Logocratic Method is an abduction regarding the nature of arguments, and I accordingly speak in this essay of the *Logocratic point of view*.) It is a matter for a kind of *philosophical-anthropological empirical* investigation to determine, for actual abductive enterprises – in law, science, morality, metaphysics – what are the axiological cognitive aims, the methods used to serve those aims, and the factual judgments that issue from application of those methods.

The enterprise conception of point of view allows me to offer an identity criterion for an individual point of view:

> *The point of view of enterprise E consists of the network of factual judgments of E, the methodological rules of E that produce those judgments, and the axiological goals of E that the methodological rules are adopted to advance and serve.*

According to this criterion, there are a great many *logical species* of abduction. The list of these species is long and likely, in principle, to be unending. They include *legal* abduction, *interpretive* abduction, and *philosophical* abduction, including *metaphysical* abduction, *moral* abduction, and *logical* abduction (as well as, for example, *Kantian* abduction, *Hohfeldian* abduction, etc.). Most significant for my purposes in this essay is *Logocratic abduction.*

2.6.5.2   THE PREMISES AND CONCLUSIONS OF ABDUCTIVE ARGUMENTS

The conclusion of an abductive inference is an *explanatory hypothesis*, sometimes referred to as an *explanans*, an "explaining thing" (Latin, plural, *explanantia*). The premises consist of:

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[17] See Laudan (1984). See also Brewer (1998).

[18] I first articulated the idea of an enterprise conception of point of view in the (proto-Logocratic) article Brewer (1998). See the discussion there for further details.

Abduction premise type i: a proposition that describes some event or phenomenon that the abductive reasoner believes stands in need of explanation; it is worth noting the different kinds of things we speech-actors do with explanatory speech acts – we explain *why* something is what it is, we explain *what* something is, and we explain *how* something came to be what it is, that is, by virtue of what genealogy.

Abduction premise type ii: one or more propositions to the effect that, *if* some specific explanatory hypothesis were in fact true or otherwise warranted, then the *explanandum* (Latin, *thing to be explained*) would be sufficiently *plausibly* explained for the reasoner's purposes; this we will refer to as the *sufficient explanation conditional*.

Abduction premise type iiii: a proposition asserting that, for some explanans Φ_n among all the Φ_i for which the sufficient explanation conditional is true, no other Φ_i explains Θ as well as Φ_n. We shall refer to this as the *uniqueness condition*. This condition is met (and thus the assertion of the proposition in this step is putatively warranted) when the reasoner has confirmed Φ_n and either disconfirmed each other Φ_i or determined that Φ_n is a better explanation than other still potentially plausible competitors. A reasoner will assert a *best explanation conditional* just when she determines that the uniqueness condition has been met by a candidate for Φ_n. The best explanation conditional may be represented as, *If Φ_n $\sqrt{\sqrt{}} \rightarrow \Theta$*, read as, "$\Phi_n$ explains Θ and for all Φ_i, if Φ_i explains Θ then Φ_i is identical to Φ_n". Note that in some argumentative settings abduction can be *inconclusive*, pending more data or more theory. In the special domain of legal abduction, however, burdens of persuasion and burdens of production virtually always yield a selection of a single Φ_n.

Abduction conclusion: the conclusion of the abduction is the proposition that, according to premise type (iii), the explanation that provides the best among the available plausible explanations is the explanation on which the arguer settles as the explanans of the explanandum.

2.6.5.3   ABSTRACT STRUCTURE OF ABDUCTION

On the Logocratic view, the abstract structure of abduction is as follows:

Where,

Θ stands for an *explanandum*

$\Phi_1 \ldots \Phi_n$ stands for (*plausible*) explanatory hypotheses (one or more *explanantia*)

If Φ_i $\sqrt{} \rightarrow \Theta$ stands for a *sufficient explanation conditional:*

If Φ_n were true, that would (plausibly) explain Θ

If Φ_n $\sqrt{\sqrt{}} \rightarrow \Theta$ stands for a best explanation conditional:

Φ_n explains Θ better than any Φ_i where $\Phi_{i \neq} \Phi_n$

the schema for abduction is this:

ε_1 Θ
ε_2 For each candidate Φ_i, Φ_i $\sqrt{} \rightarrow \Theta$ is true.
ε_3 For candidate Φ_n, Φ_n $\sqrt{\sqrt{}} \rightarrow \Theta$ is true.
therefore
h Φ_n

2.6.5.4   LEGAL ABDUCTION

As noted, the Logocratic method relies on an enterprise conception of point of view, which in turn provides the Logocratic account of *explanation* as that concept operates within abduction (inference to the best *explanation*). *Legal* abduction involves using the *methods* of legal analysis to issue in *factual judgments* about what the law is as applied to specific fact patterns, actual or hypothetical (e.g., "Laura M. Baldwin can[not] maintain an action against the defendant.," see discussion of *Howard*, section 3), from a legal point of view. Note that propositions about what the law is (e.g., "New Hampshire has an employment-at-will rule of contract law") involve *interpretive abduction.* Not infrequently, arguments that apply propositions of law to the facts of a specific case also require interpretive abduction. All legal abduction requires interpretive abduction to interpret what rules of law guide and govern the legal abduction. The role of interpretive abduction within legal abduction is an important part of the Logocratic analysis of legal arguments, and indeed arguments in many domains, since even the identification of argument- enthymemes and their fair formal representation rely on interpretive abduction.

Jurisprudential accounts differ in the exact content of the cognitive aims of the legal point of view (for example, natural lawyers may give a different account from legal positivists). This is why I referred to the question of what constitutes the axiological aims, the methods adopted to serve those aims, and the factual judgments issuing from application of those methods, as a question of philosophical anthropology. And there are dialectical competitions among those philosophical anthropologists (as suggested by the example I just offered regarding differing accounts of the overall aims of the legal point of view among natural lawyers and legal positivists). I intend to do – and need to do – very little contested philosophical anthropology here in order to present the Logocratic account of the legal abduction of the *Howard* case. The aims of the enterprise of legal abduction surely contain the powerful overarching norm – also, surely, shared by natural lawyers and legal positivists – of *rendering a decision under law* (though of course they differ about what *that* involves.) And surely among the *methods* central to legal abductions are *tools of legal argument* familiar to lawyers and judges, such as interpretation and application of statutes, cases (in Anglo-American-style practice), regulations, constitutions. From a Logocratic

point of view, this is a rich source of rule-enthymemes and the related argument-enthymemes by which lawyers and judges apply the rules to the facts of the case. And surely the central kinds of factual judgments that legal analysts arrive at by using these argument tool methods are judgments about the status of a given event or transaction under the applicable legal rules.

2.7   *The virtuous circle: evidence as argument, argument as evidence, argumental evidence*

The Logocratic Method fashions and endorses a conception of *evidence as argument*, according to which *evidence* is any factual proposition (including but not limited to factual propositions regarding some action, event, object, mental state, or proposition) that a person does or could assert as the basis for inferring a proposition about some action, event, object, mental state, or proposition (including, in principle, the same thing—that is, something can in principle be evidence for itself). Without loss of explanatory power, other conceptions of evidence in law, philosophy, and everyday life can be recast in terms of evidence as argument. For many conceptions of evidence this recasting will actually enhance explanatory power.

As noted above (sections 2.2 and 2.6.4), there are four modes of logical inference, deduction, induction, abduction (inference to the best explanation), and analogy. Corresponding to the claim that *evidence is argument* is the Logocratic counterpart (and chiasmic) claim that *argument is evidence,* in the sense that the premises of an argument provide evidence for the conclusion(s) of the argument. This framing is nicely supported by the concept of conditional probability, which can be used to describe the likely truth of the conclusion of an argument as conditioned on the assumed truth of the premises. A valid deductive argument, for example, has the highest degree of conditional probability of the conclusion given the premises.   In this framework, corresponding to deductive argument is *deductive evidence*, to inductive argument, *inductive evidence*, to analogical argument, *analogical evidence*, and to abductive argument, *abductive evidence*.

2.8   *Dynamic Interactive Virtue of Arguments*

The basic idea of dynamic interactive virtue of arguments is that, when arguments form a *system*, in a sense precisely described (see below), the virtue of the system of arguments is a function of the virtues of the individual arguments that make up the system. I intend (at this point a bit speculatively), to explain this as a functional relation in the mathematical sense that to every member of the domain as inputs, there corresponds exactly one value in the range as outputs. The domain consists of *virtue-values*, expressed only within the set of non-negative rational numbers. The co-domain is also comprised of *virtue-values*, and is all the possible outputs of those virtue values, let us say, again, only within the set of non-negative rational numbers. The range is comprised of the actual virtue-values *of the overall set of arguments that belong to an argument system* (see below). There are of course familiar problems with trying to quantify values like virtues, and such quantification is used only for precision in thinking, not for an actual Pythagorean conceit. One useful analogy to the virtue function is truth values, whose domain, co-domain, and range all consist of the truth values true or false, and whose individual functions associate all the truth-functional inputs of a compound formula with a unique output. I will illustrate this

function abstraction in connection with the *Howard* case, below. Before getting there, I need to explain the idea of a *system* of arguments so that one can know what I mean by defining *dynamic interactive virtue* of arguments as the virtue of *the system of arguments*, which has the functional relation I've just described.

2.9 *The concept of a* system

There are many *systems*. Two of great interest to this essay are the *Logocratic Method itself*, which is a system by virtue of being a philosophical explanation (philosophical abduction) of the nature of arguments and three principal uses of arguments. It is the systematic nature of the Logocratic Method that gives it such virtues as it has. The other interest of the conception of a system is the way in which sets of arguments form a system. It is the systemic nature of a set of arguments that enables the Logocratic explanation of the dynamic interactive virtue within a system of arguments.

According to the conception of a *system* that the Logocratic Method endorses and relies upon (but did not invent[19]), a *system* has these four characteristics:

(i) It is a *whole*: "The term system is employed to designate a whole from the standpoint of the methodic connection and arrangements of its constituent members...."[20]

(ii) It has *elements*: There are restrictions on the ontology (specifically, the mereology) of elements of a system. "A system's elements must have some independent existence, or at least some way of being considered independently. Otherwise they would not constitute elements but merely parts of something else."[21]

(iii) Those elements have *relations*: A system's *wholeness* (see above) is essentially tied to the relations among its parts, -- this is precisely what makes the term 'whole' valuable, since "[i]t differs from such terms as aggregate, collection and inventory, in expressly conveying the way inherent bonds bind together ... the parts of the whole [and] it differs from such terms as organism, totality and whole in expressly connoting that the parts are interdependent."[22]

(iv) The relations form a *structure*: A system's structure has two components:

(a) The relations must form a network by which every element is ultimately linked directly or indirectly to every other.

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[19] I borrow from general systems theory, from Sampford (1989) at 11-23, and from Dewey (1901).

[20] Dewey (1901). See also Sampford (1989) at 14.

[21] Sampford (1989) at 14-15.

[22] Dewey (1901).

(b) The network must conform to some pattern or order. A merely random set of interlocking relationships is insufficient to provide structure for a system.

The Logocratic Method is systematic in just this way. It is a *whole*: an account of the nature of arguments in three settings that are most typical of the contexts in which arguments are offered. It is also a method for evaluating the virtues and vices of arguments as measured by each of the three goals or purposes an arguer can have, to make arguments that are internally strong, dialectically strong, or rhetorically strong, or some blend of these aims. It has *elements*, specified by the *Logocratic ontology*: argument, rule-enthymeme, argument-enthymeme, rulification, argufication, mode of logical inference, logical form, fair formal representation, Logocratic virtues and vices (mode-dependent virtue, mode-independent virtue, and, of particular interest to this section, dynamic interactive virtue), internal/epistemic/inferential strength, dialectical strength, rhetorical strength, and distinctive explanations (abductions) of the ontology of analogy and abduction (while sharing with many other theories standard accounts of deduction and induction). The elements have *relations,* such as (among many others) the relation between an argument-enthymeme and its fair, formal representation, or the differential relation among the three types of mode-independent virtues of arguments (e.g., internal strength differs from dialectical strength and from rhetorical strength, dialectical strength differs from rhetorical strength but overlaps with it in one setting). And the relations of the Logocratic Method exhibit *structure*, specifically, what I will call *abductive structure*. All the relations and *relata* of the Logocratic Method function either to explain the nature of arguments and three of the principal uses of argument, or to explain how any given argument (or set of arguments) is to be assessed for virtue or vice.

2.10 **Systems** *of Arguments*

The concept of dynamic interactive virtue relies on the idea of arguments that form a *system*. Arguments form a system when each argument plays a role, or could be taken to play a role, along with other arguments, as part of a coordinated effort to use the speech act of argument to achieve a goal. The Logocratic Method is interested in three goals that arguers have, to make arguments that are internally strong, or dialectically strong, or rhetorically strong, or some blend of these three goals. (See sections 2.6.2 and 2.6.3). As my case study of *Howard* will show, a system of arguments has all four of the characteristics of system identified above, wholeness, elemental composition, relation, and structure. The idea of systemhood of arguments is reflected in various relations that arguments can have toward one another, such as *chaining* of arguments, in which the conclusion of one argument becomes the premise of another argument,[23] and *cumulating-independence* in arguments, where several arguments are offered for a common goal (legal abduction is a paradigm example, as I shall show in the *Howard* example below) operate independently of one another (in the sense that none of the premises of one argument serves

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[23] I offer an example of chaining in explicating the basic structure of inductive specification in section 2.5 above.

as the conclusion of another argument). More of the explanatory details of dynamic interactive virtue will emerge in the case study, to which I now turn.

3   Case study and Illustration: *Howard v. Dorr Woolen* explained (abduced) from a Logocratic point of view

3.1   *The issue in Howard*

Howard v. Dorr Woolen Co is a case from American contract law decided by the Supreme Court of the American state of New Hampshire, in 1980.[24] It involved an employee, Franklin C. Baldwin, who had worked for the defendant Dorr Woolen company almost continuously for 23 years, when "he was discharged for reasons of "economic necessity.""[25] At the time he was fired, he had vested retirement benefits under the company plan, but he was not entitled to receive those benefits unless and until he reached the age of 55. The company had also provided him with group term life insurance, which he was entitled to continue were he to be fired, but only if he assumed the premium payments. The company discharged Baldwin at the age of 50, and he did not keep the life insurance policy in effect because, he claimed, he could not afford to pay the premiums. He then died one year after his discharge.

Baldwin's widow, Laura M. Baldwin, the beneficiary of his insurance policy, and Robert R. Howard, III, administrator of Baldwin's estate, sued the Dorr Woolen Company. Their *legal abduction* (I now use and italicize most of the Logocratic explanatory terms as explained above throughout this analysis), as the court construed it, relied on a precedent case decided just six years earlier, also by the Supreme Court, *Monge vs. Beebe Rubber Company*.[26] In *Monge*, the Supreme Court of New Hampshire (the same court that decided *Howard*, Heraclitus notwithstanding, but a different composition, Heraclitus withstanding) modified an authoritative precedent rule that had been in effect for several decades. That rule governed "employees at will," that is, employees hired (as was Baldwin in *Howard*) for an indefinite period of time. The rule stated that "an employment contract for an indefinite period is one 'at will and is terminable at any time by either party' regardless of motive for 'good cause, bad cause or no cause' and for 'any reason or no reason'."[27] The *Monge* majority modified this rule by limiting the capacity of an employer to fire an employee. Under *Monge*'s new rule: "[A] termination by the employer of a contract of employment at will which is motivated by bad faith or malice or based on retaliation is not the best interest of the economic system or the public good and constitutes a breach of the employment contract."[28]

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[24] *Howard* (1980).

[25] *Howard* (1980) at 1273.

[26] *Monge* (1974). *Monge* is a favorite illustration for Logocratic analysis. See discussions in Brewer (2013) at note 16; Brewer (2017b) at 100, 104-110. We also use it as a central teaching tool in our annual Summer School on Law and Logic that we teach in Florence.

[27] *Monge* (1974) at 553 (Grimes, J., dissenting)

[28] *Monge* (1974) at 551.

3.1.1 *Dialectical competition* **of** *legal abductions*

From a *Logocratic point of view*, there are two overarching arguments that are in *dialectical competition* in *Howard*: the *legal abduction* of the plaintiffs, according to which the employee's discharge was unlawful, and the legal abduction of the defendant employer, according to which the discharge was not unlawful. Not infrequently in American legal practice, there is also a *dialectical competition* of legal abductions between the majority of members and the dissenting members of a multi-member appellate court, as for example there was in *Monge* (there was no dissent in *Howard*). The *Howard* defendant's legal abduction is not reported separately, and in the analysis below I focus on the court's legal abduction and its dialectical competition with the plaintiffs'.

3.1.2 *Plaintiffs' legal abduction*

According to the plaintiff's legal abduction, the transaction between Franklin Baldwin and the company is both *plausibly* explained and *best explained*[29] as a wrongful discharge, because *deductive evidence* under the *Monge* rule indicates that he was fired in malice. As one often finds in systems of legal arguments, the legal abduction relies on a deductively applicable rule applied in modus ponens[30] to reach the conclusion of both the deductive argument and the overall legal abduction. Plaintiffs' legal abduction relied on the *Monge* rule (enthymeme), which we may represent this way:

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[29] A point about the Logocratic theory of abduction: every abductive-argumental claim that the latter is true presupposes the claim that the former is also true, but not vice-versa.

[30] Or, depending on one's jurisprudential commitments, an application of defeasible modus ponens; I chose the deductive representation for reasons that I offer in Brewer (1996) at 989-1003.

Monge rule-enthymeme: "We hold that a termination by the employer of a contract of employment at will which is motivated by [B] Bad faith or [M] Malice or based on [R] Retaliation is not in the best interest of the economic system or the public good and constitutes a [E] brEach of the employment contract."[31]

Monge rule-enthymeme rulified: $(B \lor M \lor R) \supset E$[32]

Deductive application of *Monge*:

ε_1: $\quad (B \lor M \lor R) \supset (\sim T \land E)$
ε_2 $\quad$ M
h: $\quad$ E

Note that *$(B \lor M \lor R) \supset (\sim T \land E)$* entails *$M \supset E$* and that E (there was a breach of contract) is all the *Howard* plaintiffs cared about. As I'll discuss, there is an important question about the proper interpretive abduction of the *Monge* rule-enthymeme, namely, whether the consequent should be represented, as I do in ε_1, as the conjunction *$(\sim T \land E)$*. For now, we get a clear sense of the plaintiff's application of *Monge*. In the plaintiff's *system of arguments,* the conclusion *h* of the deductive argument is also the conclusion of the plaintiff's *legal abduction* of the transaction between Baldwin and the company: his firing was a breach of contract.

3.1.3 *The court's legal abduction*

The *Howard* court's overall legal abduction endorsed the legal abduction of the *Howard* defendant company, whose legal abduction competed with the plaintiffs' legal abduction. Given the paucity of the published record of the *Howard* case (specifically, the briefs of the parties seem not to be available), we cannot tell whether the defendant and the court used the exact same legal abductive argument as did the court, but very often a court adopts or closely adapts the legal abductive argument of the winning litigant. With this caveat, we may say that the *Howard* defendant "won" the *dialectical competition* against the plaintiff's *legal abduction.* The *Howard* court's legal abduction is contained in a concisely, indeed, almost tersely and laconically argued opinion – concise and illustrative enough to quote almost in its entirety:

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[31] *Monge* (1974) at 551. I make obvious assignments of propositional constants for a representation below using the grammar of non-modal, non-deontic propositional logic; *B* stands for *the termination of and employee by the employer is motivated by bad faith*, and for M, R, and E as indicated. Importantly, as a matter of fair interpretation I believe that the proposition *is not in the best interest of the economic system or the public good* is not intended to be part of the rule, but instead is part of the *Monge* court's rationale for the rule. I have for this reason not included that proposition in my rulification of *Monge*.

[32] I rulify the *Monge* rule as a monoconditional and not a biconditional because there are obviously other rules in the system whose consequent is *E*. However, in the context of *Howard*'s argument, the conditional functions as a biconditional, as explained below in note 36.

[0] The first issue is whether the estate of Mr. Baldwin has pleaded sufficient facts to maintain an action against the defendant. The administrator alleges that the defendant discharged Mr. Baldwin because of his age, his suffering from a debilitating condition of angina, and for the purpose of denying him his accrued retirement benefits. He argues that such allegations constitute a discharge motivated by bad faith, malice, or retaliation, and warrants recovery for breach of contract under Monge v. Beebe Rubber Co., 114 N.H. 130, 316 A.2d 549 (1974).

[1] It is evident that the defendant did not discharge Mr. Baldwin for the purpose of denying him his accrued retirement benefits, as it is admitted by both parties that such benefits vested at the time of his discharge, but that he was not entitled to receive them unless and until he reached the age of fifty-five. We therefore disregard this allegation.

[2] We also find the administrator's reliance upon Monge v. Beebe Rubber Co., supra, for the proposition that a discharge due to age or sickness warrants recovery is misplaced. [a] We construe Monge to apply only to a situation where an employee is discharged because he performed an act that public policy would encourage, or refused to do that which public policy would condemn. See, e. g., Nees v. Hocks, 272 Or. 210, 536 P.2d 512 (1975) (employee discharged for accepting jury duty); cf. Whirlpool Corp. v. Marshall, 48 U.S.L.W. 4189, 445 U.S. 1, 100 S.Ct. 883, 63 L.Ed.2d 154 (1980). [b] A discharge due to sickness does not fall within this category, and is generally remedied by medical insurance or disability provisions in an employment contract. Nor does discharge because of age fall within this narrow category. The proper remedy for an action for unlawful age discrimination is provided for by statute. See RSA 354-A:8 I (Supp.1979); RSA 354-A:9; 29 U.S.C. s 623 (1976); 29 U.S.C. s 626 (1976). Accordingly, the administrator's claim must fail on the basis of his pleadings. We note, however, that even if the claim did not fail, the administrator would have no claim to insurance proceeds under the decedent's policy in this case because there was a named beneficiary, Laura M. Baldwin, the decedent's widow. See generally 44 Am.Jur.2d Insurance s 1925 (1969).

[3] The next issue is whether Laura M. Baldwin can maintain an action against the defendant. Any right of action she arguably had as a third-party beneficiary under the employment contract between her deceased husband and the defendant is nullified by our narrow construction of Monge v. Beebe Rubber Co., supra.

 I have offered bracketed numbers and letters in this *argument-enthymeme* to indicate (informally) what I regard as a fair formal interpretation of the several distinct elements of the court's legal abduction. The conclusion of the abduction is that neither the administrator nor the widow had pleaded sufficient facts to warrant bringing this case to trial ("the administrator's claim must fail on the basis of his pleadings" and "Laura M. Baldwin can[not] maintain an action against the defendant"). These sub- arguments make up the system of arguments that stand in the relation of dynamic interactive virtue – or vice. There are many ways to represent each of these sub-arguments and the overall legal

abduction in a way that meets the demands of charity that animates the Logocratic idea of fair formal representation. One could represent each argument line by line, formally, in accord with the Logocratic explication of abduction offered above and the Logocratic explications of induction and analogy developed elsewhere. One may also offer the fair formal representation somewhat less formally, as, for reasons of space, I do here.

The court's legal abduction is framed by a background rule so well understood that the judge does not bother to state it fully or offer any citation for it, the rule for carrying what in American law is called a *burden of pleading*. From a logical point of view, a party carries the burden of pleading if and only if that party can show that there is under existing authoritative law a rule $(h_1 \wedge h_2 \wedge h_3 \wedge \ldots h_n) \supset h_{n+1}$ where each element h_i in the antecedent is an element of a claim or defense (civil or criminal) and h_{n+1} is some legal consequence (such as damages or a criminal penalty) such that if the party provides sufficient evidence to establish each of the elements of the antecedent, the party would be entitled to the consequent result h_{n+1}.[33]

3.1.3.1   COURT'S BURDEN OF PLEADING ARGUMENT WITHIN THE SYSTEM OF ARGUMENTS FOR ITS LEGAL ABDUCTION

The court relies for its overall legal abduction on the deductive application of the rule for the burden pleading discussed above (again, note the court's statements that "the administrator's claim must fail on the basis of his pleadings" and "Laura M. Baldwin can[not] maintain an action against the defendant"). Fairly supplied in Logocratic terms, the rule is ε_1, and I present the court's deductive application informally (but, I hope, discernibly):

ε_1:   The legal action by the plaintiffs can be sustained if and only if they
      are entitled to compensation under *Monge v. Beebe Rubber Co.* ["If and
      only if" because *Monge's* rule seems to be the only rule the plaintiffs
      invoked, and the court is unable or unwilling to consider any other rule that
      might give the plaintiffs compensation under law that was authoritative at
      the time of *Howard*.]

ε_2:   The plaintiffs are not are entitled to compensation under *Monge v.*
      Beebe Rubber Co

h: The legal action by the plaintiffs cannot be sustained. [An application
      of *modus tollens* along with a bi-conditional truth-functional equivalence]

3.2   *The argument in argument-enthymeme [1], [2](a) and [3]*

Premise ε_2 in the foregoing argument (the "argufied" representation of the rule-enthymeme) is the conclusion of a lemma, and the operation of lemmas in arguments is a

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[33]   For additional discussion of the Logocratic analysis of the burden of pleading in American law, see Brewer (2011) at 180, 182-83, 191-92.

prominent feature of what I have explicated as *systems* of arguments.[34] The argument comprising that lemma is an extremely condensed argument by disanalogy. In a disanalogical argument, one reasons that because two or more items (call these the "source" of the disanalogy and the "target" of the disanalogy) *fail to* share some characteristics (the source and target have, that is, some "*un*shared characteristics"), one *cannot* infer that they share an additional characteristic that is of particular interest to the reasoner (the "inferred characteristic"), even though they share some characteristics that might lead a reasoner to think that the inferred characteristic may be inferred.[35] To see how the *Howard* court's disanalogical argument operated, note again our *rulification* of the *rule-enthymeme* in *Monge*, the rule that the *Howard* plaintiffs offered in their effort to meet their burden of pleading.

Monge rule (*rulified*): (B v M v R) ⊃ (~T ∧ E)

The *Howard* court used its authority to effect a substantial logical narrowing of the *Monge* rule, requiring that an employee show not only that he was fired in bad faith or malice or retaliation, but also that he was fired because he performed an act that public policy would encourage or refused to do that which public policy would condemn. (See [2](a) in the argument-enthymeme quoted above). From a logical point of view, where we assign *P* to the (disjoint) proposition *the employee is discharged because he performed an act that public policy would encourage or refused to do that which public policy would condemn*, *Howard* used disanalogical reasoning to generate this rule, logically narrowing *Monge*'s rule:

Howard rule (*after disanalogical argument*): ((B v M v R) ∧ **P**)) ⊃ E

Because this was the *only* rule under which the *Howard* plaintiffs might survive a motion to dismiss (that is, carry their burden of pleading), each conjunct in the antecedent was not only jointly sufficient for the consequent but also was individually necessary.[36] This means that, in context, *Howard*'s rule functioned not as a conditional but as a biconditional:

Howard rule (*after disanalogical argument*): ((B v M v R) ∧ **P**)) ≡ E

Having added the conjunct *P* to *Monge*'s rule, claiming the warrant of a disanalogical argument for doing so, the *Howard* court then reasoned deductively to concluded that

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[34] For an early "proto-Logocratic" account of the role of lemmas in legal arguments, see Brewer (1998), Section VI.

[35] For a detailed account of analogical and disanalogical argument, see Brewer (1996).

[36] This has been called the *sole sufficient condition* rule, namely, in the conditional $\alpha \supset \beta$, if α is the sole sufficient condition for β, then it's also a necessary condition for β. For the importance of this rule of interpretation for understanding the logic of legal argument, see Brewer (2017a) at note 6; see also Brewer (1998) at note 263.

neither plaintiff was entitled to win damages (i.e., they concluded proposition *E* was not true) by an application of a bi-conditional truth-functional equivalence:

Step		(Purported) Justification
ε_1:	$((B \lor M \lor R) \land P)) \equiv E$	Derived from the court's disanalogical argument distinguishing and narrowing the *Monge* rule, operating as biconditional in context of this litigation
ε_2	$\sim P$	The court purports to justify this conclusion in what I've labeled [2b] and [3] in the *Howard* argument enthymeme quoted above. **The court merely asserts, but does not, to my mind, adequately defend this crucial assertion.**
ε_3	$\sim ((B \lor M \lor R) \land P)$	From ε_1 and ε_2 by bi-conditional truth-functional equivalence and modus tollens
h:	$\sim E$	From ε_1 and ε_3 by bi-conditional truth-functional equivalence $[(((\alpha \equiv \beta) \land \sim\alpha) \supset \sim\beta)$ is a theorem.]

3.3 *The Viciousness of* **Howard***'s System of arguments?*

The system of the *Howard* court's arguments involved an overarching legal abduction which included a deductive argument about the burden of pleading (see above section 3.1.3.1), which in turn relied on a disanalogical argument in which the court distinguished and logically narrowed the *Monge* rule, which the court then applied in a version of modus tollens (see above section 3.2). My assessment of the virtue or vice of *the system* of arguments in *Howard* is determined by my assessment of whether each of the arguments has the *characteristic virtues* of its *mode of logical form*. Both of the court's deductive arguments have the characteristic virtue of validity in their applications of *modus tollens* (sections 3.1.3.1 and 3.2). However, there are two crucial failings as a matter of the *internal* strength of the court's arguments. First, the court asserts, but does not present an adequate defense that I can see, for concluding that conjunct *P*, which the court added in its disanalogical narrowing of *Monge*, was false. The court simply asserts its falsehood, but then relies entirely on the assumed falsehood of that proposition to render the conclusion of its application of the burden of pleading rule, which then in turn serves as the conclusion of its overall legal abduction denying the plaintiffs a chance to go to trial. Overall, these weaknesses – vices -- in the court's system of arguments deprive that system of the *internal virtues* of argument that the plaintiffs would expect in a system that respects the rule of law. The court's arguments are valid, and in that way *internally strong*, but for all the court

says they are not sound, thus leaving one dissatisfied with the power the court exercised as the referee of the *dialectical competition of arguments* between plaintiff and defendant.

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