Analogy and Exemplary Reasoning in Legal Discourse

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2. Indefeasible analogical argument

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**Abstract**

A too common view of analogical arguments in law and in other domains holds that they necessarily lack the force of valid deductive argument and thus, by definition, that they are defeasible forms of argument. Against this it is argued here that, properly understood, some analogical arguments, including analogical arguments in law, do have the force of valid deductive arguments, and that these arguments are indefeasible. Paradigms of such supposedly indefeasible arguments are an important part of this discussion.

**Keywords:** indefeasible analogical argument, deductivism, heuristics

1 The issue: are all analogical arguments defeasible?

1.1 Deductivist and anti-deductivist accounts of analogical argument

Among philosophers, legal theorists, cognitive psychologists, and AI theorists, a very common, almost universally accepted view of analogical arguments is that such arguments cannot have the epistemic force of valid deductive arguments.¹ I shall refer to this as the ‘anti-deductivist’ explanation of analogical argument. And I shall refer to explanations according to which is it possible for an analogical argument to have the

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¹ My view of the relation between the *form* of an argument (deductive, non-deductive, analogical, etc.) and its epistemic force arises from my understanding of the nature of the enterprise of logic, on which see more extensively the next footnote. See also Skyrms, 1966, p. 4: ‘Logic is the study of the strength of the evidential link between the premises and conclusions of arguments.’
force of deductive argument as ‘deductivist’. Since only valid deductive arguments are indefeasible, according to the anti-deductivist explanation, all analogical arguments are defeasible.

I defend a deductivist explanation in this chapter, as I have done elsewhere. It is important to be clear about the precise scope of the claim advanced regarding argument by analogy. It is not the claim that all instances (tokens) of argument by analogy have the epistemic force of deduction. Instead, it is the claim that some instances of analogical argument have the epistemic force of deduction, and thus are indefeasible. Considerations of pragmatics determine whether a particular enthymeme is best interpreted as an analogical argument (or as one of the other four modes of logical inference), and if so, whether it is best interpreted as having the epistemic force of deduction. I shall illustrate and further articulate this point later in this chapter. My abductive, explanatory task is to show how it is possible for analogical arguments to have the force of deductive arguments.

2 It is important to recognize that competing explanations of analogical argument, such as the deductivist and anti-deductivist explanations, are indeed explanations, for this characterization reminds us that the account we give of the structure and properties of analogical argument is the product of abduction, of inference to the best explanation (as is common, I regard these terms as synonyms). At this point I should define a few terms in order to make an observation about what we do when we offer explanations of analogical argument. I take ‘logic’ to be study of the different modes of logical inference that different kinds of arguments display: see also Skyrms, 1966. An argument’s mode of logical inference (or, synonymously, its logical form) is the evidential relation between the argument’s premises and its conclusion. In accord with this conception of logic, I maintain that an argument’s logical form is the evidential relation between the argument’s premises and its conclusion(s). For discussion, see Brewer, 2011. For reasons I shall not offer here, I believe that there are exactly four irreducible modes of logical inference: deduction, induction, analogy, and abduction. An explanation of the structure of any of these four modes of inference, including analogy, can be achieved only by means of abduction. (When one uses abduction to explain abduction, one engages in meta-abduction.) For this reason and in this way, abduction is prima inter pares among the four modes of logical inference.

3 See Brewer, 1996. What I consider an importantly mistaken view of analogy largely persists and I here renew the effort on this particular point.

4 On this very common form of philosophical abduction, there is no better discussion than that offered by Nozick (1981, pp. 8–10):

Many philosophical problems are ones of understanding how something is or can be possible. [...] How is it possible that we know anything, given the facts the skeptic enumerates [...] The form of these questions is, how is one thing possible, given certain other things? Some statements r₁, … , rₙ are assumed or accepted or taken for granted, and there is a tension between them and some other statement p; they appear to exclude p’s holding true. Let us term the rᵢ apparent excluders (of p). Since the statement p is also accepted as true, we face the question of how p is possible, given its apparent excluders. [...] The strongest mode of apparent exclusion would be logical incompatibility: the apparent excluders, in conjunction, logically (appear to) imply that p is false. [...] To rebut an argument for not-p from specific
A small sample of conceptions may suffice to identify the ‘anti-deductivist’ view of analogical argument that I shall challenge in this chapter. Hospers (1967, p. 476) asserts that ‘[i]t will be apparent at once that an argument from analogy is never conclusive.’ Regarding reasoning from precedent, which, as he recognizes, (often) involves reasoning by analogy, Golding (2001 [1984], p. 103) asserts that no reasoning from precedent is deductive, and that if there were such a thing as deductive reasoning from precedent, it would be ‘strictly speaking, no argument by analogy at all.’ Rissland and Ashley state that, unlike reasoning in mathematics, which does not rely on cases, analogical reasoning is based on cases and thus is not deductive.\(^5\) Holyoak and Thagard (1995, p. 30) argue that:

The basic device for generating inferences by analogy is called ‘copying with substitution’, because it essentially consists of simply copying over propositions known to be true of the source to become inferences about the target […] Inferences made by analogy using copying with substitution are never guaranteed to be true. The point to remember is that analogy is a source of plausible conjectures, not guaranteed conclusions.

And Fried maintains that

[a]nalogy and precedent are the stuff of the law because they are the only form of reasoning left to the law when general philosophical structures and deductive reasoning give out, overwhelmed by the mass of particular details. Analogy is the application of a trained, disciplined intuition where the manifold of particulars is too extensive to allow our minds to work on it deductively.\(^6\)

1.2 Prakken’s version of anti-deductivism: anti-inferentialism

Prakken offers an anti-deductivist view of analogy, but one that is quite different from most others. Because there is so much overlap between his explanation of analogy (his abduction of the structure of analogy)\(^7\) and apparent excluders removes a reason for thinking \(p\) cannot hold, and so counts as a kind of explanation of how \(p\) is possible.

\(^5\) Rissland and Ashley, 1989, p. 67 (‘in mathematics one does not justify a conclusion by citing cases but rather through the methods of logical inference’).


\(^7\) See note 4 on the relation between abduction and explanations of the structure of analogy.
my own, a close comparison and contrast of his and my theories will help me explain the deductivist position I endorse.

Central to Prakken’s explanation of analogy is the familiar distinction between a ‘context of discovery’ and a ‘context of justification’. Cleaving to that distinction, he characterizes logic as ‘essentially a matter of justifying a solution to a problem given a set of premises, in whatever way the solution has been obtained and the premises have been selected’. On this view of logic, ‘a mode of reasoning has (given the premises) a justifying force only if the conclusion is somehow based on the way it has been derived – that is, if it is based on the form of the mode of reasoning’. Next, Prakken argues that analogies have whatever value they do, not by virtue of their form but only by virtue of their content. Since – on his view, as noted – justification in an argument must be a matter of form, analogies cannot do the work of justification. Instead, their value lies in the contribution they make to discovery:

\[\text{A}n\text{alogical reasoning is a formal way of suggesting additional premises if in a particular case the rules ‘run out’, without providing any conclusive reason to accept the suggested premise. Analogical reasoning is not an inference mode but a heuristic principle for trying to find additional information and as such it is an aspect of the context of discovery of problem solving [...]}\]

Prakken offers an example to illuminate and illustrate his view of analogical reasoning, one in which the comparison (the search for relevant similarity that is characteristic of analogical reasoning) is between a case and a prior statutory rule from Dutch civil law. According to the statutory provision, the selling of a house does not terminate an existing lease. The question presented to the legal reasoner was whether donating instead of selling the house would also preserve (not terminate) an existing lease. The question for the reasoner is whether donating a house is relevantly similar to selling a house for the purpose of the statutory provision whose explicit terms preserve a lease in the case of sale. As Prakken (1997, p. 27) presents it, donating was indeed found to be relevantly similar to selling for

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8 Prakken, 1997, p. 28 (emphasis original).
9 Prakken, 1997, p. 28 (emphasis original).
10 Prakken, 1997, pp. 28-29 (emphasis original).
the purpose of this provision, because both donating and selling involved *transferring property*:

> [T]he way in which in Dutch law the analogy was justified was first observing that selling and donating are both instances of the more general legal concept ‘transferring property’ and then by arguing that [the statutory provision] is based on the principle that transferring property does not terminate an existing lease contract [...]

Prakken observes that this analogy requires a rule to determine whether the two analogized items (selling a house and donating a house) are relevantly similar. Indeed, he maintains that all analogies require such rules:

> This example shows that what is important in an analogy is that the two cases which are matched are both instances of a more general rule or principle from which the desired conclusion in both cases can be derived [...]

He notes that if the rule had been known before the reasoning task was to be performed, it could simply have been applied deductively, and that what makes the case of analogy interesting is that the knowledge system ‘has to construct such a rule in a non-deductive but formally defined way from certain knowledge-based items’ (Prakken, 1997, pp. 27–28). He regards this construction as a matter of the ‘logic of discovery’, not the logic of justification (which is the domain of ‘logical inference’ such as deduction), and thus on his view analogical reasoning is not ‘logical inference’ at all but is rather ‘a formal way of *suggesting* additional premises if in a particular case the rules “run out”, *without providing any conclusive reason to accept the suggested premise*’ (Prakken, 1997, pp. 28–29).

There is much to commend in this explanation of analogy, especially what is in my view its correct emphasis on the role that rules play in the process of analogical reasoning. My account of analogy also emphasizes the importance of the role of rules in analogical reasoning. I also regard as importantly correct his emphasis on the role of discovery in the process

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11 Prakken, 1997, p. 27.
12 Prakken does not use the term ‘deductively’, but that clearly seems to be what he refers to by the phrase ‘logical inference’. See Prakken, 1997, p. 27 (‘If such a rule is already present in the knowledge base, then, of course, the system can apply this rule, which is simply *logical inference*’; emphasis added).
of analogical reasoning. Unlike Prakken, however, I regard analogical reasoning as a type of *logical inference*, along with induction, deduction, and abduction. Moreover, although Prakken's view is unusual among what I've called 'anti-deductivist' explanations of analogy, like other anti-deductivists (unlike Prakken, his fellow anti-deductivists regard analogical reasoning as a type of *justification*), he clearly believes that analogical reasoning can never have the force of deduction (see Prakken, 1997, p. 27). By contrast, on my deductivist explanation of analogy, it is possible for analogical arguments – one of four modes of logical inference – to have the force of deduction. Before explaining why I believe this is so, I shall briefly summarize my own account of analogy. Because I have offered this account in detail elsewhere, I will present my summary in schematic form.

2 The logic of exemplary reasoning

2.1 Summary of features of analogical argument

1 Analogical arguments always involve a comparison of two or more selected items – it can be many more than two – ‘target’ items, on the one hand, and ‘source’ items, on the other.

2 In every analogical argument there is also an *inferred characteristic* – a characteristic known to be possessed by the source of the analogical argument, but not, at the outset of the analogy, known to be possessed by the target. Analogical argument serves the purpose of enabling the reasoner to discern whether the possession of some characteristics known to be shared by the source and the target rationally warrant the inference that the target also possesses the inferred characteristic that the source is known to have.

3 Reconstructing any enthymematic argument, including analogical arguments, requires a *fair interpretation* of the text in which the argument is presented (judicial decision, lawyer's brief, etc.).

4 Analogical arguments always involve picking *shared characteristics* in the source(s) and the target that are judged to be rationally relevant to possession of the inferred characteristic.

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13 I've reported this view above, see note 2, with a brief explanation of what I understand the discipline of *logic* to be.
Discerning the pattern of shared characteristics between source(s) and targets that are rationally relevant to the possession of the inferred characteristic involves abduction within the multi-step process of analogical argument.

The basic pattern is always this: on the basis of some shared relevant characteristics, one infers that the ‘target’ item has an additional characteristic that the source item is known to have.

There is always an implicit rule guiding the inference to inferred characteristics from relevant shared characteristics – this is the ‘analogy-warranting rule’.

There must always be a justification of this rule (an ‘analogy-warranting rationale’) if the analogy is to be successful. The importance of the analogy-warranting rationale cannot be overemphasized, for the following reasons:

(a) Any two items (source and target of an analogical argument, and indeed any two pairs of items in the universe) are alike in an infinite number of ways.

(b) Any two items (source and target of an analogical argument) are also unalike in an infinite number of ways.

(c) Analogical arguments (and disanalogical arguments – on which more below) cannot be rationally compelling unless there is some explanation that justifies the analogy-warranting rule – that is, that provides a rational justification for the rule’s assertion that possession of the shared characteristics in an item rationally warrants the inference to the conclusion that the item also possesses the inferred characteristic.

Note that in the argument template offered below, two possible patterns are offered for the analogy-warranting rule; what the actual rule (and thus what the logical structure of the rule) is in a given analogical argument depends, of course, on how the interpreter of an analogical argument interprets the enthymemetic analogy (see Summary Point 3, above).

2.2 Structure of analogical argument

(1) $x_1, x_2, x_3, \ldots$ have $F, G, H, \ldots$ [sources have specific characteristics]
(2) $y$ has $F, G, H, \ldots$ [target has those same specific characteristics – thus, they are ‘shared’ characteristics]
(3) $x_1, x_2, x_3$ also have $N$ [sources also have the inferred characteristic]
(4) Analogy-warranting rule:
[One option:] anything that has \( F, G, H \) also has \( N \) [anything that has the specified shared characteristics also has the inferred characteristic]

[Another option:] some things that have \( F, G, H \) also have \( N \) [some things that have the specified shared characteristics also have the inferred characteristic]

(5) Analogy-warranting rationale: states an explanatory justification for the analogy-warranting rule, specifically, for the assertion in the rule that possession of the characteristics shared by source and target rationally license the conclusion that the inferred characteristic is also present (see summary point 8, above).

(6) Therefore, \( y \) has \( N \) [conclusion: target has inferred characteristic]

2.3   Simple example of argument by analogy, contract clause

A contract for the sale of a farm includes language that specifies, ‘This contract of sale includes all farm buildings, fields, and machinery as well as all cows, chickens, pigs, sheep, and other farm animals.’ The farmer’s dog is a pet that also sometimes acts as a shepherd. Is the farmer’s dog included in this sale?

2.3.1   Analogical argument that the dog is included in the sale

(1) Cows, chickens, and pigs, are all income-producing animals on the farm [premise of the analogical argument stating that sources have specified characteristics]

(2) This dog (in its capacity as shepherd) is an income-producing animal on the farm [premise of the analogical argument stating that the target also has those same characteristics]

(3) Cows, chickens, and pigs are included in the contractual sale of the farm [premise of the analogical argument stating that sources also have the inferred characteristic – the characteristic whose possession by the target is the problem to be solved, the question to be answered by analogical argument]

(4) Anything that is an income-producing animal on the farm is included in the contractual sale of the farm [analogy-warranting rule]

(5) Trade usage governs this transaction, and trade usage indicates that the sale of an income-producing farm includes items reasonably related to the income-producing capacity of the farm [This is one possible example of an analogy-warranting rationale; some such rationale must
be supplied or fairly discernible, as a matter of interpretation, in order for this analogical argument to have rational force.]  

(6) Therefore, the dog is included in the contractual sale of the farm [conclusion: target has inferred characteristic].

2.4 Argument by disanalogy and ‘distinguishing as narrowing’: summary of features of disanalogue argument

The pattern of disanalogue reasoning is similar (!) to the pattern for analogical reasoning, except that the basic argument is that, despite what might seem like similarities between source and target that are relevant to possession of the inferred characteristic, the absence of a characteristic in the target that is possessed by the source blocks the inference to the conclusion that the target also possesses the inferred characteristic.

1 Disanalogical arguments always involve a comparison of two or more selected items – it can be many more than two – ‘target’ items, on the one hand, and ‘source’ items, on the other.

2 Reconstructing any enthymemathic argument, including disanalogue arguments, requires a fair interpretation of the text in which the argument is presented (judicial decision, lawyer’s brief, etc.).

3 The typical motivation for a disanalogue argument is that certain characteristics of the source(s) and target are in some way salient enough to suggest the conclusion that the target has an additional characteristic (the inferred characteristic) that the source item is known to have.

4 The disanalogue argument asserts that, despite that appearance, the presence of those salient shared characteristics in both source(s) and target is not sufficient to warrant the conclusion that the target has the inferred characteristic, because there is an unshared characteristic, present in source but not in target, whose presence is necessary to warrant the inference of the presence of the inferred characteristic.

5 The basic pattern is always this: despite the presence of some shared relevant characteristics between source(s) and target, the presence of an unshared characteristic in source(s) but not in target blocks warrant of the inference of the presence of the inferred characteristic in the target.

6 There is always an implicit rule guiding the blocking of the inference from the presence of the shared characteristics to the presence of the inferred characteristic; this is the ‘disanalogy-warranting rule’.

7 Because every source and every target (and any two pairs of items in the universe) are unalike in an infinite number of ways, if the disanalogue
argument is to have rational force, there must always be a justification of this rule (a ‘disanalogy-warranting rationale’) that explains the assertion in the disanalogy-warranting rule that possession of an unshared characteristic in the source but not in the target blocks the inference that the target also has the inferred characteristic.

2.5 Structure of disanalogical argument

(1) \(x_1, x_2, x_3 \ldots\) have \(F, G, H, \ldots\) \[source(s) have specified characteristics\]
(2) \(y\) has \(F, G, H, \ldots\) \[target has those same characteristics, hence they are ‘shared’ characteristics\]
(3) \(x_1, x_2, x_3 \ldots\) also have not-\(J\) and not-\(K\) and not-\(L\) \ldots\ \[source(s) have additional specified characteristics\]
(4) \(y\) does not have not-\(J\) and not-\(K\) and not-\(L\) \ldots\ \[i.e. \(y\) has \(J\) and \(K\) and \(L\) \ldots\] \[target does not have those additional specified characteristics possessed by the source(s), hence they are ‘unshared’ characteristics\]
(5) \(x_1, x_2, x_3\) also have \(N\) \[source(s) have inferred characteristic\]
(6) Disanalogy-warranting rule: all things that have \(F\) and \(G\) and \(H\) and not-\(J\) and not-\(K\) and not-\(L\) \ldots\ have \(N\), but \(F\) and \(G\) and \(H\) \ldots\ are not, by themselves, sufficient for \(N\)
(7) Disanalogy-warranting rationale: provides an explanatory justification for the assertion, in the disanalogy-warranting rule, that possession of characteristics \(F, G, H\) in an item are insufficient rationally to warrant the inference that the item possesses the inferred characteristic
(8) Therefore, the presence of \(F\) and \(G\) and \(H\) \ldots\ in \(x_1, x_2, x_3\) \ldots\ and in \(y\), provides no rational basis for inferring the presence of \(N\) in \(y\) \[conclusion: unwarranted to conclude that target has inferred characteristic\].

2.6 With the contract clause example (see above)

A contract for the sale of a farm includes language that specifies, ‘This contract of sale includes all farm buildings, fields, and machinery as well as all cows, chickens, pigs, sheep, and other farm animals.’ The farmer’s dog is a pet that also sometimes acts as a shepherd. Is the farmer’s dog included in this sale?

2.6.1 Disanalogical argument that the dog is not included in the sale

(1) Cows, chickens, and pigs, are all income-producing animals on the farm \[premise of the disanalogical argument stating that sources have specified characteristics\]
(2) This dog (in its capacity as shepherd), is an income-producing animal on the farm [premise of the disanalogical argument stating that the target also has those same characteristics, hence ‘shared’ characteristics]

(3) Inclusion of the cows, chickens, and pigs in the sale of the farm was within the intent of the contracting parties [premise of the disanalogical argument stating that the sources have an additional specified characteristic]

(4) Inclusion of the dog in the sale of the farm was not within the intent of the contracting parties [premise of the disanalogical argument stating that the target does not possess that additional specified characteristic possessed by the sources, hence this is an ‘unshared’ characteristic]

(5) Cows, chickens, and pigs are included in the contractual sale of the farm [premise of the disanalogical argument stating that sources also have the inferred characteristic – the characteristic whose possession by the target is the problem to be solved, the question to be answered by disanalogical argument]

(6) Possession by an item of being an income-producing animal on the farm is not sufficient rationally to warrant the conclusion that the item is to be included in the sale of the farm, unless the item was intended by the parties to be included in the sale [disanalogy-warranting rule]

(7) When there is a reasonable question about the meaning of the term of a contract, the fairly discerned intent of the parties governs the transaction, and here the fairly discernible intent indicates that the dog was not intended to be included in the sale [This is one possible example of a disanalogy-warranting rationale; some such rationale must be supplied or fairly discernible, as a matter of interpretation, in order for this disanalogical argument to have rationale force.]

(8) Therefore, the dog is not included in the contractual sale of the farm [conclusion: target does not have inferred characteristic]
2.7 Prakken’s example, explained in my scheme

Recall the example Prakken uses to illustrate his explanation of analogy, above. In my scheme:

Target (‘y’) = event in which a house was donated

Source (‘x’) = statutory rule according to which the sale of a house does not terminate an existing lease

Shared characteristic – F: involves the transfer of property

Inferred characteristic – H: does not terminate an existing lease

Argument:

(1) \( x \text{ has } F \)
(2) \( y \text{ has } F \)
(3) \( x \text{ also has } H \)
(4) Analogy-warranting rule: any F is also H
(5) Analogy-warranting rationale: [?]
(6) Therefore, \( y \text{ has } H \)

Analogy-warranting rationale: In order for this analogy to carry rational force, there must be an explanation that offers a justification for the analogy-warranting rule. In Prakken’s report of the case it is not clear whether the court explicitly applied this analogy-warranting rationale. If they did not, that would substantially weaken the rational force of the analogy.

3 Indefeasible analogical arguments

I now turn to the task of presenting a simple but, I believe, compelling example of indefeasible analogical arguments. These (and many others are possible, within and outside the context of litigation) exemplify (!) the possibility of analogical arguments that have the rational force of deduction – the core of the ‘deductivist’ claim I argue in this chapter.
3.1 Validity, deduction, and defeasible argument

A defeasible argument from premises $\varepsilon_1$–$\varepsilon_n$ to conclusion $h$ is one in which it is possible that the addition of some premise(s), $\varepsilon_{n+1}$, to $\varepsilon_1$–$\varepsilon_n$, can undermine the degree of evidential warrant that premises $\varepsilon_1$–$\varepsilon_n$ provide for $h$.\(^\text{15}\)

As this definition indicates, the only kind of argument that is indefeasible is a valid deductive argument. Even the addition of premises that are inconsistent with or contradictory to one or more of the original premises does not block the validity of the original argument. An argument is valid if and only if whenever all the premises are true, the conclusion must be true. By this definition, a set of premises that are inconsistent or contradictory cannot all be true, and thus the conclusion follows validly, almost as if by a trick of the definition of logical validity.


This case involved contracts between plaintiff and defendant for sale of ‘chicken’. The dispute arose because the buyer said that the term ‘chicken’ in the contracts referred to younger, tastier chicken, suitable for broiling and frying, and not to older, less tasty chicken suitable only for stewing. The facts of the case indicated the younger, tastier chicken came in two weights but at a higher price, while the older, less tasty chicken, came only at the heavier weight but at a lower price.

By their terms, the disputed contracts used the term ‘chicken’ but went on to stipulate what kind of chicken the parties wanted only by reference to weight and price; that is, the poorly drafted contracts did not precisely specify the terms for which the parties actually (or so they later claimed) intended to contract. Rather, they used only the underdeterminative proxies of weight and price. Each of the two contracts called for a certain quantity of heavier ‘chicken’ at a lower price per pound and a certain quantity of lighter ‘chicken’ at a higher price per pound. When the seller shipped both younger chicken and older chicken to fill the order the disappointed buyer sued, claiming the contract was for the sale of only the younger chicken.

\(^{15}\) For reasons I will not offer here, I rely on an epistemic conception of defeasibility, which focuses on the rationality of belief formation and revision, rather than a formal logical conception, which focuses on non-monotonic consequence relations. Of course, each conception has important consequences for the other.
In his analysis, Judge Friendly focused on rules of contract interpretation. Among the several interpretive arguments the plaintiff made to show that the term ‘chicken’ in the contract referred to only younger chicken suitable for broiling and frying was this one:

Plaintiff says the [lighter] birds necessarily had to be younger chicken since the older birds do not come in that size, hence the [heavier] birds must likewise be young. This is unpersuasive – a contract for ‘apples’ of two different sizes could be filled with different kinds of apples even though only one species came in both sizes.16

This is an **indefeasible enthymematic analogical argument**, which can be fairly reconstructed as follows:

1. Plaintiff’s argument (regarding chicken) has the form: if an item of type $X$ has characteristics $A$ and $B$, but items of type $Y$ have only characteristic $A$, then any specification of items only by reference to possession of characteristics $A$ and $B$ must refer to items of type $X$ [target has a specified characteristic]

2. An imagined argument (regarding apples) also has the form: if an item of type $X$ has characteristics $A$ and $B$, but items of type $Y$ have only characteristic $A$, then any specification of items only by reference to possession of characteristics $A$ and $B$ must refer to items of type $X$ [source also has that specified characteristic]

3. **Inferred characteristic**: the source argument is invalid [source has an additional characteristic, the inferred characteristic that is the occasion for resorting to argument by analogy]

4. **Analogy-warranting rule**: any argument that has the form ‘if (an item of type $X$ has characteristics $A$ and $B$, but items of type $Y$ have only characteristic $A$) then (any specification of items only by reference to possession of characteristics $A$ and $B$ must refer to items of type $X$)’ is invalid

5. [The analogy-warranting rationale, a principle of deductive logic that says, any argument that has the same logical form as an invalid argument is itself invalid. This rationale is supplied, ultimately, by rules of metalogic, to which Judge Friendly defers, likely intuitively – compare the tacit knowledge of the rules of grammar by competent speakers of a language.]

6. The plaintiff’s argument is invalid [conclusion of the analogical argument]

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16 *Frigaliment* 190 F. Supp. at 118.
4 How is indefeasible analogical argument possible?

Recall Prakken’s central contention about reasoning by analogy, that it is not a type of inference, but is only a ‘formal way of suggesting additional premises if in a particular case the rules “run out”, without providing any conclusive reason to accept the suggested premise’. My central claim in response to this is that, when one sees the operation of abduction within the multi-step process of argument by analogy, one sees that it does have justificatory form, even though it does also involve, as Prakken sees, an element of discovery. The discovery, by means of abduction, of the pattern expressed by an analogy-warranting rule (or disanalogy-warranting rule), as justified (as it must be) by an analogy-warranting rationale (or disanalogy-warranting rationale), can have the rational force of deductive inference, if the domain of argument is underwritten by rules of deductive logic.

Compare, for example, the following abduction: explain how it is possible for two pawns in chess to appear in the same row. It is possible if and only if one pawn has taken an opposing piece in that row. This is abduction in a context of indefeasible argument. On my account, there is always an abduction used to discern a pattern of similarities that are relevant to the presence of inferred characteristics (whether in analogical or disanalogical inference). When that abduction takes place in a context of indefeasible argument – as it did for Judge Friendly, as it does for explaining the genesis of a given chess position – then the analogy that is based on that abduction also has the force of indefeasible argument.

It is the presence of abduction within analogical argument – as one step in the multi-step process of analogical argument – that makes analogical argument a true form of argument, of logical inference. Prakken argues that reasoning by analogy is always a matter of only content, not of form, and for this reason such reasoning is not a logical inference at all. That analogy is entirely a matter of content is shown by the fact that if a match between two cases is imperfect, it is always possible to instead construct from exactly the same premises a rule for the opposite conclusion based on the difference between the two cases, and if this is indeed done, for example, by the opponent in a law suit, then a choice has to be made between the rules.

This argument overlooks the vital role of analogy- and disanalogy-warranting rationales. Not all of them are believed by reasoners. Not every similarity between items in some respects is sufficient to warrant the

18 Prakken, 1997, p. 28 (emphasis original).
conclusion that they are similar in a further respect. There are simply too many similarities (an infinite number) for this to be how analogical arguments work. And not every dissimilarity between two objects is sufficient to warrant the conclusion that they are dissimilar in some further respect. Again, there are simply too many dissimilarities (an infinite number) for this to be how disanalogical arguments work. The work of accepting and rejecting analogy- or disanalogy-warranting rules is done by the analogy- or disanalogy-warranting rationale, and not every such rationale is credible. And when the analogy- or disanalogy-warranting rationale is underwritten by abduction in a context of indefeasible argument, the resulting analogical or disanalogical argument is indefeasible.

About the author

Scott Brewer is professor of Law, Harvard Law School. He published on contracts, evidence, legal theory, jurisprudence and legal philosophy.