Legal Theory, **10** (2004), 19–31. Printed in the United States of America
Published by Cambridge University Press 0361-6843/04 $12.00 + 00

THE RESULT MODEL OF PRECEDENT

John F. Horty
University of Maryland

The result model of precedent holds that a legal precedent controls a fortiori cases—those cases, that is, that are at least as strong for the winning side of the precedent as the precedent case itself. This paper defends the result model against some objections by Larry Alexander, drawing on ideas from the field of Artificial Intelligence and Law in order to define an appropriate strength ordering for cases.

I. THREE MODELS

Much of the theoretical literature on the topic of precedent is concerned either with justifying the practice or with undermining these attempts at justification, but there is also a more fundamental question concerning the nature of the practice itself. How is it, exactly, that precedents constrain future decisions? What is the mechanism of constraint? In one of the most thorough and rewarding studies of the topic in recent years, Larry Alexander surveys the literature on precedential constraint, isolates three models that he believes to be exhaustive of the possibilities, argues against two of them, and endorses a third.[1]

According to the first model, which Alexander calls the *natural model*, a decision in a precedent case is best thought of as nothing but an ordinary event in the natural world. Like any other natural event, a precedent decision might figure into the reasoning of a court in its attempt to reach the correct decision in a current case; but on the natural model, this is the extent of precedential constraint. Of course, since courts place a high value on similar treatment of similar cases, and on the predictability of judicial decision, the reasons derived from precedent cases tend to be fairly strong. Nevertheless, they are supposed to be reasons like any other, without any special pedigree and capable of being overridden by stronger reasons from a different quarter. Alexander offers a number of arguments against this natural model of precedent. I accept these arguments and shall say nothing further about the model here.

1. Larry Alexander, *Constrained by Precedent*, 63 S. CAL. L. REV. 1–64 (1989); many of the arguments from this long paper are summarized in Larry Alexander, *Precedent*, in A COMPANION TO PHILOSOPHY OF LAW AND LEGAL THEORY 503–513 (Dennis Patterson, ed., 1996).

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

The second model of precedential constraint—which Alexander ultimately endorses—is the *rule model*. A precedent case normally contains, not only a decision, but also a statement of some particular rule through which the decision was reached.[2] According to the rule model, it is this rule that carries the precedential constraint. Constraint by precedent is just constraint by rules; a constrained court must apply the rules of precedent cases in reaching current decisions. Alexander's understanding of the rule model is hardheaded and uncompromising. Precedent rules are to have the form: "If facts *A* and *B* are present, and fact *C* is not, then decide for the plaintiff." When the antecedent of a rule applies to a current case, a constrained court then has only two choices: it can either accept the rule's consequent as the outcome of that case, thereby following the rule, or else it can overrule the precedent. There is no room for narrowing the rule, or distinguishing the current case from the precedent; any such attempt, in Alexander's view, would deviate from the rule model in favor of his third model of precedent.

This third model is the *result model*, according to which a precedent controls all and only a fortiori cases—that is, all and only those cases that are as least as strong for the winning side of the precedent as the precedent case itself. As Alexander writes:

> To follow precedent, a constrained court must decide its case for the party analogous to the winner in the precedent case if the constrained case is as strong or stronger a case for that result than the precedent case was for its result. The constrained court must do so even if under the natural model it would have decided its case differently and regardless of any rule stated in the precedent case. Conversely, however, the constrained court may depart from the precedent court's result if the constrained case is a weaker case for that result than was the precedent case, even when the stated rule of the precedent case covers the constrained case and demands a similar result.[3]

To illustrate, consider a precedent case with facts *A*, *B*, and *C*, where *A* and *B* favor the plaintiff and *C* favors the defendant, and in which the precedent court held for the plaintiff, stating as its rule: "If facts *A* and *B* are present, then decide for the plaintiff." Now imagine that a new case arises with facts *A*, *B*, and *D*. If we suppose, first, that *D* favors the defendant less strongly than *C* or else actually favors the plaintiff, the new case is then an a fortiori

2. For the purpose of this brief exposition, I shall speak as if the rule underlying a decision is plain, ignoring the extensive literature on methods for determining the rule, or *ratio decidendi*, of a case. I shall also speak as if a case always contains a single rule, ignoring situations in which a judge might offer several rules for a decision, or in which a court reaches a decision by majority, with different judges offering different rules, or in which a judge might simply render a decision in a case without setting out any general rule at all.

3. Alexander, *Precedent, supra* note 1, at 29–30. In addition to this first description of the result model, Alexander provides two additional formulations—one of which relates the model to some of Dworkin's ideas, the other to the precedent court's reasoning—and then argues that all three formulations are equivalent. I concentrate here only on the first, or a fortiori, formulation, which I take as canonical.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

case for the plaintiff, a stronger case for the plaintiff than the precedent case itself. The new case is therefore controlled by the precedent, and so must be decided for the plaintiff—in accord with the rule of the precedent, as it happens. On the other hand, if we suppose that *D* favors the defendant more strongly than *C*, the new case is no longer a fortiori: it is now a weaker case for the plaintiff than the precedent case and is no longer controlled by the precedent. In such a situation, according to the result model, the court is free to decide the new case however it sees fit, regardless of the fact that the rule of the precedent, applied to the new case, would dictate a result for the plaintiff.

Of course, a court holding for the defendant in a situation like this would typically narrow the precedent rule, replacing it with something like: "If facts *A* and *B* are present, and fact *D* is not, then decide for the plaintiff." Still, although this kind of rule modification may help to explain the court's holding, it should not obscure the fact that according to the result model, the scope of precedential constraint is determined by strength comparisons between precedents and current cases rather than the precise formulation of precedent rules.

Of the three models of precedential constraint, Alexander feels that the result model is most generally favored by modern commentators, citing Edward Levi, Steven Burton, A.W.B. Simpson, Joseph Raz, and perhaps even Ronald Dworkin and Frederick Schauer as scholars who either explicitly endorse or are committed to the model.[4] Nevertheless, Alexander argues that the result model is "quite unattractive and perhaps ultimately incoherent."[5] Since the natural model of precedent is out of play, he is therefore driven to accept the rule model as the only viable alternative.

My purpose in this paper is to challenge Alexander's arguments against the result model of precedent. In doing so, I do not necessarily mean to endorse the result model—I actually think that rules may have an important role to play—but simply to make room for the possibility that insights from the result model may contribute to our overall understanding of precedential constraint.

II. A SINGLE METRIC

According to the result model, precedents are supposed to control a fortiori cases, cases that are at least as strong for the winning side of the precedent case as the precedent case itself. The definition of the model hence requires some notion of the relative strength of cases for one side or another. In our illustration, for example, we were able to conclude that if the fact *D* favors the defendant more strongly than *C*, then the precedent case, with *A*, *B*,

4. *See* Alexander, *Precedent, supra* note 1, at 45–47 for his arguments attributing the result model to these various writers.

5. Alexander, *Precedent, supra* note 1, at 5.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

and *C*, is a stronger case for the plaintiff than the new case, with *A*, *B*, and *D*. But how can an appropriate notion of relative strength be defined in general?

Alexander feels that a general definition would require something like a single, linear scale on which the strength of a case for one side or another could be measured:

> The major difficulty with this methodology for determining if a constrained case is an a fortiori case is that it requires a single metric on which the facts of two cases can be compared and weighed. In other words, the methodology must assume a single master principle that assigns weights in a common currency to various facts.[6]

And he advances two objections against the idea that the relative strength of cases might be gauged by a single metric of this kind.[7] The first is simply that the evaluation of a case could be complex in ways that are not well represented by the metaphor of choosing a point on a linear scale to represent its strength; a case might involve a conflict between different principles or policies whose value cannot be assessed along a common dimension.

The second objection is that the idea of a single linear scale leads to peculiar patterns of precedential constraint. Given only a single scale, as Alexander writes, cases in one area might wind up as precedents in an entirely different area, no matter how unrelated: torts cases, for example, might act as precedents for contract or agency cases having no factual similarities at all. And since the effect of precedents is so wide-ranging, a problem in one area of the law can lead to difficulties in other areas as well. Imagine, for example, that the linear scale on which cases are evaluated runs from 0 to 10, where 0 represents the value of the strongest possible case for the defendant and 10 the value of the strongest possible case for the plaintiff. Suppose that the set of precedents includes one case, with a value of 3, that was decided for the plaintiff, and another, with a value of 7, that was decided for the defendant. And consider a new case whose value is assessed at 5. This case will be a fortiori for both the plaintiff and the defendant—stronger for the plaintiff than a case already decided for the plaintiff, and stronger for the defendant than a case already decided for the defendant. The court will hence be subject to conflicting precedential constraints.

Now it might be replied that the background set of precedents in this situation is itself, in a sense, inconsistent—containing a case decided for the defendant that is stronger for the plaintiff than one decided for the plaintiff—and that it is no surprise that an inconsistent set of precedents should generate conflicting constraints. The point, however, is not just that an inconsistent set of precedents generates conflicting constraints but that,

6. Alexander, *Precedent, supra* note 1, at 34–35.
7. These two arguments are found in Alexander, *Precedent, supra* note 1, at 34–37.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

since different kinds of cases are all evaluated on the same linear scale, the impact of any particular inconsistency is pervasive. In our hypothetical situation, for example, the entire swath of new cases with an assessed value lying between 3 and 7 would be subject to conflicting constraints, regardless of their factual similarities or differences from the inconsistent pair of precedents. Since any realistic set of precedent cases, decided by different courts at different times, is bound to contain inconsistencies, it would be more desirable if the effects of these inconsistencies could be localized.

The idea of evaluating cases on a linear scale is, therefore, both unnatural and problematic; so why not abandon it? Because without such a scale, according to Alexander, it is impossible to define the strength comparisons among cases that are necessary for the result model:

> if there are multiple principles that cannot be reduced to a common metric, how do we determine whether a . . . decided case controls a factually distinct case in the sense that the latter is an a fortiori case given the former? . . . If the principles at stake are multiple and are not lexically ordered or reducible to a common master principle, determining whether the constrained case is an a fortiori case is impossible.[8]

I agree, for Alexander's reasons as well as others, that it is unwise to think of evaluating the strength of a case as placing it at a particular point on a single, linear scale. But I do not agree that this kind of linear metric is necessary for defining an appropriate relation of strength among cases, the concept of an a fortiori case, or the result model of precedent. To support this view, I now sketch a simple but precise framework that allows these ideas to be defined in a way that does not involved a linear metric.

III. MEASURING STRENGTH

We begin by postulating a set F of relevant legal facts, or *factors*. These factors tend to have polarities, favoring either the plaintiff or the defendant in a case. We let $F^{\pi} = \{f_1^{\pi}, \ldots, f_n^{\pi}\}$ represent the set of factors favoring the plaintiff and $F^{\delta} = \{f_1^{\delta}, \ldots, f_m^{\delta}\}$ the set of factors favoring the defendant, allowing $g_1, \ldots, g_j$ to range over factors in general regardless of their polarity. We adopt the simplifying assumption that the set of factors is exhausted by those favoring the plaintiff together with those favoring the defendant: $F = F^{\pi} \cup F^{\delta}$.

A *precedent case* will be treated simply as a set of factors together with an outcome, the decision reached on the basis of those factors by some precedent court.[9] Such a case can be represented as a pair $c = \langle \{g_1, \ldots, g_n\}, s \rangle$,

8. Alexander, *Precedent, supra* note 1, at 36–37.

9. Since the current task is to define a pure result model of precedent, we ignore any rules that may have figured into the decision in precedent cases.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

where $g_1, \ldots, g_n$ are the factors present in the case and s represents its outcome. The two functions *Factors* and *Outcome* map cases into their factor and outcome parts, respectively; in the case c above, for example, we would have $Factors(c) = \{g_1, \ldots, g_n\}$ and $Outcome(c) = s$. We assume that the outcome s of a case is always either a decision in favor of the plaintiff or a decision in favor of the defendant, with these two outcomes represented as π or δ respectively; and where s is an outcome, $\bar{s}$ represents a decision for the opposite side, so that $\bar{\pi} = \delta$ and $\bar{\delta} = \pi$.

A new case, or *problem situation*, is simply a set $X = \{g_1, \ldots, g_n\}$ of factors without an associated outcome. We let X^s represent the factors from X that support the side s; that is, $X^\pi = X \cap F^\pi$ and $X^\delta = X \cap F^\delta$.

Now, what about strength comparisons? To motivate our definition, we begin by considering three problem situations: $X_1 = \{f_1^\pi, f_1^\delta, f_2^\delta\}$, $X_2 = \{f_1^\pi, f_1^\delta\}$, and $X_3 = \{f_1^\pi, f_2^\pi, f_1^\delta\}$. Because the problem situation X_3 contains all the factors from X_2 that favor the plaintiff and no factors favoring the defendant that are not already found in X_2, it seems that X_3 presents a case for the plaintiff at least as strong as that presented by X_2. We record this fact by writing $X_2 \leq^\pi X_3$, and we can see, likewise, that $X_1 \leq^\pi X_2$. By dual reasoning, we can see that X_1 presents a case for the defendant at least as strong as that presented by X_2, written $X_2 \leq^\delta X_1$, and likewise that $X_3 \leq^\delta X_2$.

Generalizing from these examples, let us say that the situation Y presents a case for side s at least as strong as that presented by X whenever: Y contains all the factors from X that support s, and X contains all the factors from Y that support $\bar{s}$. Or, put formally:

$$X \leq^s Y \text{ if and only if } X^s \subseteq Y^s \text{ and } Y^{\bar{s}} \subseteq X^{\bar{s}}.$$

It is easy to verify that the strength ordering $\leq^s$, defined in this way, is a partial ordering: reflexive, transitive, and antisymmetric. That is, for any situations X, Y, and Z, we have:

$$X \leq^s X;$$
$$X \leq^s Y \text{ and } Y \leq^s Z \text{ implies } X \leq^s Z;$$
$$X \leq^s Y \text{ and } Y \leq^s X \text{ implies } X = Y.$$

We can also verify the duality property, according to which Y is at least as strong for s as X whenever X is at least as strong for $\bar{s}$ as Y:

$$X \leq^s Y \text{ if and only if } Y \leq^{\bar{s}} X.$$

And of course, the weak ordering $\leq^s$ allows us to define a strong ordering $<^s$ in the usual way, taking $X <^s Y$ if and only if $X \leq^s Y$ and it is not the case that $Y \leq^s X$. Our motivating examples actually illustrate this stronger relation: $X_1 <^\pi X_2$ and $X_2 <^\pi X_3$. It is important to note, however, that neither the weak ordering $\leq^s$ nor, of course, its strong counterpart $<^s$ is linear, or

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

connected. Given two situations X and Y, we cannot necessarily conclude that one presents a case for some particular side at least as strong as that presented by the other; we cannot conclude, that is, that either $X \leq^s Y$ or $Y \leq^s X$. The point can be illustrated with the situations $X_4 = \{f_1^\pi, f_1^\delta\}$ and $X_5 = \{f_1^\pi, f_2^\pi, f_1^\delta, f_2^\delta\}$, where we have neither $X_4 \leq^\pi X_5$ nor $X_5 \leq^\pi X_4$.

Is this the right result from an intuitive standpoint? Here the situation X_5 contains a factor f_2^π, favoring the plaintiff, that is not found in X_4, but it also contains an additional factor, f_2^δ, favoring the defendant. Now it may be that these new factors, f_2^π and f_2^δ, can be evaluated along the same dimension, with f_2^π adding at least as much weight for the plaintiff as f_2^δ subtracts, so that X_5 is at least as strong for the plaintiff as X_4. Or it may be that, again assessed along the same dimension, f_2^δ subtracts at least as much weight as f_2^π adds, so that X_4 is at least as strong for the plaintiff as X_5. But it is also possible that the factors f_2^π and f_2^δ might appeal to entirely different principles, or values, and cannot meaningfully be compared along a common dimension at all. It would then be reasonable to conclude that the situations X_4 and X_5 are themselves incomparable in strength.

Even though our strength ordering is not linear, however, it can still be used to define the idea of an a fortiori case—a problem situation that is stronger for some side than a precedent case that has already been decided in favor of that side—as follows:

A problem situation X is *a fortiori for side s* if and only if the set of precedents contains a case c such that $Outcome(c) = s$ and $Factors(c) \leq^s X$.

To illustrate, imagine that the background set of precedents contains only c_1 and c_2, where $c_1 = \langle\{f_1^\pi, f_1^\delta\}, \pi\rangle$ and $c_2 = \langle\{f_2^\pi, f_2^\delta\}, \delta\rangle$, reflecting previous cases in which the court confronted the problem situations $Factors(c_1) = \{f_1^\pi, f_1^\delta\}$ and $Factors(c_2) = \{f_2^\pi, f_2^\delta\}$, deciding in favor of the plaintiff and the defendant respectively. And suppose the court is confronted with the new situation $X_6 = \{f_1^\pi, f_2^\pi, f_1^\delta\}$. This is now an a fortiori case for the plaintiff, since it is at least as strong for the plaintiff as the case c_1, which was already decided for the plaintiff: $Outcome(c_1) = \pi$ and $Factors(c_1) \leq^\pi X_6$. According to the result model of precedent, the court is hence constrained to decide X_6 for the plaintiff. On the other hand, a situation such as $X_7 = \{f_1^\pi, f_1^\delta, f_2^\delta\}$ is not a fortiori for either side. According to the result model, the court would therefore be free from precedential constraint in considering this situation and could simply decide the case in whatever way seems right.

This account shows, then, how the notion of an a fortiori case, and so the result model of precedent, can be defined even in the absence of a single, linear metric for evaluating the strength of cases. The formal account has, I hope, some intuitive plausibility as a theoretical analysis of reasoning with precedents, and it has some empirical grounding as well: the representation of cases as sets of factors is derived from that used by Kevin Ashley and

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

his colleagues in some of the most successful research on precedent-based reasoning in the field of Artificial Intelligence and Law.[10]

As we have seen, the framework set out here allows for the possibility that cases might be evaluated on the basis of multiple, independent principles. But what of Alexander's other objection, concerning peculiar patterns of precedential constraint? To begin with, we can see at once in this new framework that any situation controlled by a precedent case must now bear a very strong factual relation defined in terms of shared factors to that precedent. If X is controlled by the precedent case c—that is, if X is at least as strong as c itself for the winning side of c—we will have $Factors(c) \leq^s X$, where $Outcome(c) = s$. And from this, our definition of strength tells us that $Factors(c)^s \subseteq X^s$ and that $X^{\bar{s}} \subseteq Factors(c)^{\bar{s}}$: each factor from c favoring s must belong to X, and each factor from X favoring $\bar{s}$ must belong to c.

Because the factual relations involved in precedential constraint are so strong, the impact of inconsistent precedents is likewise less severe. Let us define a pair of precedent cases c and d as *inconsistent* whenever d presents a stronger case for the side s than c yet c is decided for s while d is decided for $\bar{s}$—that is, whenever $Factors(c) \leq^s Factors(d)$, yet $Outcome(c) = s$ while $Outcome(d) = \bar{s}$. Given the vagaries of judicial decision, we must accept the possibility that any realistic set of precedents is likely to contain inconsistent pairs of this kind. Imagine, for example, that the background set of precedents contains both $c_3 = \langle\{f_1^\pi, f_1^\delta, f_2^\delta\}, \pi\rangle$ and $c_4 = \langle\{f_1^\pi, f_2^\pi, f_1^\delta\}, \delta\rangle$, where c_4 is stronger for the plaintiff than c_3, but where c_3 is decided for the plaintiff and c_4 for the defendant. And suppose the court is confronted with the new situation $X_8 = \{f_1^\pi, f_2^\pi, f_1^\delta, f_2^\delta\}$, This new situation would then be a fortiori for both the plaintiff and the defendant—stronger for the plaintiff than c_3, which was decided for the plaintiff, but also stronger for the defendant than c_4, which was decided for the defendant.

10. *See* Kevin Ashley, *Toward a Computational Theory of Arguing with Precedents: Accommodating Multiple Interpretations of Cases, in* PROC. SECOND INT'L CONF. ARTIFICIAL INTELLIGENCE & LAW (ICAIL-89) 93–110 (1989); and Kevin Ashley, MODELING LEGAL ARGUMENT: REASONING WITH CASES AND HYPOTHETICALS (1990); *see also* Edwina Rissland, *Artificial Intelligence and Law: Stepping Stones to a Model of Legal Reasoning*. 99 YALE L. REV. 1957–1981 (1990), for an overview of research in Artificial Intelligence and Law that places this work in a broader context. The factor-based case representation has been developed most extensively in the domain of trade secrets law, where Vincent Aleven, *Teaching Case-Based Argumentation through a Model and Examples* (1997) (unpublished Ph.D. thesis, University of Pittsburgh) has analyzed 147 cases in terms of a factor hierarchy that includes 5 high-level issues, 11 intermediate-level concerns, and 26 base-level factors. The resulting knowledge base is used in an intelligent tutoring system for teaching elementary skills in legal argumentation, which has achieved results comparable to traditional methods of instruction in controlled studies; *see* Vincent Aleven & Kevin Ashley, *Evaluating a Learning Environment for Case-Based Argumentation Skills*, in PROC SIXTH INT'L CONF. ARTIFICIAL INTELLIGENCE & LAW (ICAIL-97) 170–179 (1997). Of course, the formal treatment sketched in the text abstracts considerably from this detailed representational work, and in particular the idea that legal factors are organized into a hierarchy is missing entirely; some of the formal problems involved in reasoning with factor hierarchies are discussed in John Horty, *Precedent, Deontic Logic, and Inheritance, in* PROC. SEVENTH INT'L CONF. ARTIFICIAL INTELLIGENCE & LAW (ICAIL-99) 63–72 (1999).

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

Just as before, then, an inconsistent pair of precedents can generate conflicting constraints, but in our new framework the conflict will be much more localized: the set of the situations subject to the conflicting constraints will be narrow in extent and limited to situations sharing factual similarities with the pair of precedents that generate the conflict. This can be shown precisely. Consider an inconsistent pair c and d, with $Factors(c) \leq^{s} Factors(d)$, but where $Outcome(c) = s$ and $Outcome(d) = \bar{s}$. A situation X will be subject to conflicting constraints based on this pair, a fortiori for both s and $\bar{s}$, only if X presents a case for s at least as strong as c and a case for $\bar{s}$ at least as strong as d—that is, only if $Factors(c) \leq^{s} X$ and $Factors(d) \leq^{\bar{s}} X$. And from this, we can conclude from our definition of strength both that $Factors(c)^{s} \subseteq X^{s} \subseteq Factors(d)^{s}$ and that $Factors(d)^{\bar{s}} \subseteq X^{\bar{s}} \subseteq Factors(c)^{\bar{s}}$. Any situation X that is subject to conflicting constraints based on c and d must therefore lie, in a certain sense, between c and d: its factors favoring s must contain those found in c yet not exceed those found in d, and its factors favoring $\bar{s}$ must contain those found in d yet not exceed those found in c. There will be a limited number of situations meeting these standards, and any factor belonging to any such situation will have to be present already in either c or d.

IV. ACCESS TO THE FACTS

In addition to his objections involving the definition of a fortiori cases and peculiar patterns of precedential constraint, Alexander raises another problem for the result model concerning access to the facts of precedent cases.[11] The result model relies, of course, on the notion of an a fortiori case, a problem situation at least as strong for the winning side of the precedent case as the precedent case itself. But how can we actually make the relevant strength comparisons between the current problem situation and a precedent case with any degree of confidence? In general, our only access to the facts of the precedent case is provided by the opinion of the precedent court, which may not be exhaustive or entirely reliable.

In order to see how we should respond to this problem, let us begin with some examples. Suppose that the opinion in a precedent case records only the factors f_1^{π} and f_1^{δ}, together with a decision in favor of the plaintiff, and imagine that the court is now considering a situation in which the factors are f_1^{π}, f_2^{π}, and f_2^{δ}. On the face of it, the current situation is not controlled by the precedent case since it is incomparable in strength. But imagine that careful investigation reveals that f_2^{δ} was in fact present in the precedent

11. *See, Precedent, supra* note 1, at 42–44. There is also a third argument, at 37–42, but this argument is directed against some of Dworkin's proposals, motivated by the idea that these are equivalent to the result model; I ignore this third argument, since I am here considering only the a fortiori formulation of the result model.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

case, although the precedent court was apparently unaware of this factor. If this new factor f_2^δ were added to the factors f_1^π and f_1^δ actually recorded in the precedent case, then of course the new situation would now be a fortiori, stronger for the result of the precedent than the precedent itself. Could it be argued, then, that the new situation should therefore be controlled by the precedent on the grounds that it is a fortiori on the basis of the factors actually present in that case whether or not the precedent court knew about those factors?

Or again, suppose that the same precedent case, with recorded factors f_1^π and f_1^δ and a decision for the plaintiff, is recognized as controlling a new situation with factors f_1^π, f_2^π, and f_1^δ, since the new situation is stronger for the plaintiff than the precedent. But imagine that it is discovered, this time, that the precedent court had been misled: the factor f_1^δ was not in fact present in the precedent case. Could it therefore be argued that the precedent is no longer relevant since the new situation is not a fortiori on the basis of the factors that were actually present?

Surely no one would accept these arguments. What is important in understanding a precedent is not so much the factors actually present in that case but the factors that were recognized to be present by the precedent court. It is the precedent court's judgment, based on the facts as it conceived of and recorded them, that gives meaning to a precedent. What this suggests is that the definition of an a fortiori case should be modified slightly to make the reliance on recorded facts explicit. The new definition should read: a problem situation is a fortiori if it is at least as strong for the winning side of the precedent case as the precedent case itself, as far as we can tell from the recorded facts of the precedent case.

Alexander, however, objects to this proposal—that we should limit consideration only to the recorded facts of the precedent case—on the grounds that it "all but collapses" the precedent model into the rule model, allowing the precedent court in effect to lay down a rule by selecting a particular set of facts to reveal.[12] This objection must be evaluated with some care. What is true is that, like the rule model, the proposal would allow the precedent court a certain degree of freedom to establish a broader or narrower precedent in a particular case, depending on how it formulates its opinion. Suppose, for example, that a court wishes to decide for the plaintiff in a case in which the factors actually present are f_1^π, f_2^π, f_3^π, f_1^δ, and f_2^δ. The court could then cite all five of these factors, establishing the relatively narrow precedent $c_5 = \langle\{f_1^\pi, f_2^\pi, f_3^\pi, f_1^\delta, f_2^\delta\}, \pi\rangle$. Or it could mention only a subset of the factors, establishing a precedent such as $c_6 = \langle\{f_1^\pi, f_1^\delta, f_2^\delta\}, \pi\rangle$, for example. This precedent would be considerably broader, in the sense of controlling more future problem situations.

Nevertheless, even though the current suggestion would allow the precedent court to formulate broader or narrower precedents just as in the rule

12. Alexander, *Precedent, supra* note 1, at 43.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

model, this suggestion does not simply collapse the result model into the rule model, since the effects of these broader or narrower precedents, according to the result model, are different than those of the corresponding rules. To illustrate: the result model effect of the precedent c_6, for example, is not equivalent to that of the rule "If f_1^π, f_1^δ, and f_2^δ are present, then decide for the plaintiff." The problem situation $X_9 = \{f_1^\pi, f_1^\delta, f_2^\delta, f_3^\delta\}$, for example, would be controlled by the rule, since f_1^π, f_1^δ, and f_2^δ are present, but not, according to the result model, by c_6 itself, since X_9 presents a weaker case for the plaintiff than c_6. On the other hand, the problem situation $X_{10} = \{f_1^\pi, f_1^\delta\}$ would be controlled by c_6, according to the result model, since it presents a stronger case for the plaintiff than c_6, but not by the rule, since this situation does not contain all of f_1^π, f_1^δ, and f_2^δ.

To place the current suggestion in perspective, it is useful to recall Arthur Goodhart's "material facts" proposal in the literature on determining *ratio decidendi,* according to which the rule of a case is a simply a complex conditional containing as its antecedent a conjunction of the facts found by the court to be material and as its consequent the holding of the court based on those facts. On this view, the court makes law not only by reaching a particular conclusion in a case but by identifying material facts of the case:

> It is by his choice of the material facts that the judge creates law. A congeries of facts is presented to him; he chooses those which he considers material and rejects those which are immaterial, and then bases his conclusion upon the material ones . . . . Our system of precedent becomes meaningless if we say that we will accept his conclusion but not his view of the facts. His conclusion is based on the material facts as he sees them, and we cannot add or subtract from them by proving that other facts existed in the case.[13]

Although Goodhart is writing with the rule model in mind, his idea that the court shapes the meaning of a precedent through its selection of material facts can just as easily be interpreted in the context of the result model, along the lines suggested here. The material facts recorded in the court's opinion would be used not to specify the rule of a case but to establish its position in the strength ordering and thereby to determine the range of future problem situations controlled by that case.

V. DISCUSSION

My aim in this paper has been to show only that the result model of precedent is coherent and defensible. Although I feel that this model contributes to our overall understanding of precedential constraint, I do not mean to claim that it is capable on its own of providing a complete account of the

13. Arthur Goodhart, *Determining the* ratio decidendi *of a Case*, 40 YALE L.J. 161–183 (1930), at 169.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

phenomena. Even apart from its neglect of rules—which I do feel have some role to play—the result model is subject to a number of more local difficulties, which may or may not prove to be insurmountable but would at least require some careful thought. I close simply by mentioning two of these.

First, the strength ordering defined in this paper relies on the assumption that the set of relevant legal factors can be divided without remainder into those favoring the plaintiff and those favoring the defendant. This is a plausible assumption in many ways. It is hard to think of a factor that while legally relevant, does not favor one side or another; and certainly the analysis mentioned earlier of actual legal cases by Ashley and his colleagues involves only factors favoring some particular side. Still, there are arguments within moral philosophy suggesting that the polarity of certain factors might vary depending on the context in which they appear—that a particular factor might favor one side when taken together with one group of factors, and a different side when taken together with a different group.[14] The basic idea can be illustrated with an example entirely outside the moral or legal domain, by considering a situation in which an individual is trying to decided whether conditions are favorable for an afternoon run.[15] It is easy to imagine that extreme heat and rain might count as unfavorable factors tending to rule out a run, but that a combination of heat and rain together is acceptable, perhaps even refreshing. On one natural interpretation, what this example suggests is that neither heat nor rain itself has any independent polarity with respect to the classification of a situation as favorable for running, since each of these features tends to make the situation less favorable in one context, when present alone, but more favorable in another, when both features are present together.

The issues surrounding examples like this are complicated, and of course other interpretations are possible as well; perhaps what this particular example shows is that the basic factors involved in the domain are actually heat-without-rain and rain-without-heat, both of which would have negative polarity, and heat-and-rain together, which would have positive polarity. Nevertheless, such examples, as well as other considerations from the literature, give life to the possibility that certain factors might have variable polarity, favoring different sides of an issue depending on the context in which they occur. If this turns out to be true, then the definition of a strength ordering for cases based on the factors they contain would be much more difficult.

The second difficulty I want to mention strikes at the fundamental idea underlying the result model—that a precedent controls only a fortiori cases. Suppose that our background set contains only two precedents,

14. *See* Jonathan Dancy, MORAL REASONS (1993), for arguments in favor of this view; and Brad Hooker & Margaret Little, MORAL PARTICULARISM (2000), for a collection of essays on the topic.

15. This example is due to Henry Prakken & Giovanni Sartor, *Modelling Reasoning with Precedents in a Formal Dialogue Game*, 6 ARTIFICIAL INTELLIGENCE & L. 231–287 (1998), who develop a model of reasoning with polarity-free factors.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press

$c_7 = \langle\{f_1^\pi, f_2^\pi, f_1^\delta, f_2^\delta\}, \pi\rangle$ and $c_8 = \langle\{f_1^\pi, f_1^\delta, f_4^\pi, f_4^\delta\}, \delta\rangle$, and consider the problem situation $X_{11} = \{f_1^\pi, f_2^\pi, f_3^\pi, f_1^\delta, f_2^\delta, f_3^\delta\}$. According to the definition set out here, the situation X_{11} is not a fortiori for either side, neither stronger for the plaintiff than c_7 nor stronger for the defendant than c_8, and is therefore not controlled by either precedent. It could be maintained, however, that X_{11} is more similar to c_7 than to c_8. Why? Perhaps because the factors that c_8 shares with X_{11} are included among those that c_7 shares with X_{11}, while the factors that c_7 does not share with X_{11} are included among those that c_8 does not share with X_{11}.[16] And if this is so—if X_{11} is indeed more similar to c_7, which was decided for the plaintiff, than to c_8—then I think many people would want to argue that, in accord with precedent, X_{11} should therefore be decided for the plaintiff as well.

Of course, this kind of argument would not be conclusive: an advocate for the defendant could attempt to distinguish the case by pointing out that the situation X_{11} contains the factor f_3^δ, favoring the defendant, which is not found in c_7. Still, if an argument in favor if deciding a case like X_{11} for the plaintiff on the basis of a precedent like c_7 has any force at all, even if that force is not conclusive, then it seems that the influence of precedents extends beyond a fortiori cases. If this kind of influence is legitimate, how could we account for it? There are no rules involved, so we cannot appeal to the rule model of precedent. But it does not fit the result model either.

16. There are different ways of defining similarity measures among factor sets, and I do not mean to take a stand on this issue. The suggestion in the text is reminiscent of a well-known proposal by Amos Tversky, *Features of Similarity*, 84 PSYCHOL. REV. 327–352 (1977); Ashley's work concentrates, by contrast, only on factor overlap.

https://doi.org/10.1017/S1352325204000151 Published online by Cambridge University Press