

EXPLANATION, HUMAN NATURE, AND TORT THEORY

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I.

[T]he kind of conceptual explanation of tort law that economic analysis offers is deeply inadequate, in a way that becomes clear when we consider the sort of explanation offered by the principle of corrective justice ... That principle states that *individuals who are responsible for wrongful losses of others have a duty to repair those losses.* ... Corrective justice can provide an account of what tort law is, in a way that economic analysis fails to do.¹

This quote from Jules Coleman nicely embodies two prevailing assumptions in contemporary tort theory. The first is that jurisprudence and the philosophy of law are largely explanatory enterprises. And the second is that the two dominant theories of torts – law and economics and corrective justice – are doing conceptual battle, so that if one view is true, the other must be false.

I have no quarrel with the first assumption; indeed, I see it as a very positive methodological advance in our understanding of the purpose of jurisprudence. Good philosophical analysis has always been, at its heart, explanatory. We are confused, puzzled, or just intrigued, by some feature of the world, and the philosopher's words help us better understand it. Recent work in jurisprudence and philosophy of law has explicitly recognized the explanatory underpinnings of both general theories of law, and of specific areas of the law such as torts. All of this is extremely healthy because our understanding of the

nature of explanation itself has increased a good deal in the last half century, particularly in the philosophy of science.²

The second assumption, however, is much more complicated. I am generally sympathetic to the reservations often presented by critics of the law and economics approach to legal questions. I am also predisposed to endorse the deeply normative implications that I see, though Coleman does not, at the heart of corrective justice accounts of private law. All of this being said, though, it proves remarkably difficult to find articulations of these two views of tort law that explicitly contradict one another. In fact, in many cases the most vociferous advocates of one theory concede the truth in the other's account, though relegating it to minor conceptual importance. I will argue that the most straightforward, perhaps the only, way to present the two schools of torts as logically incompatible is to carry our jurisprudential investigations clear to the level of basic human nature.

II.

[C]orrective justice ... purports to explain tort law in a non-reductive way, by identifying the principle that ties together its central concepts and explains the practical inferences they warrant. Tort law is itself a scheme of practical reason. Typically, the plaintiff has the burden of presenting evidence and argument to support various allegations—among them, typically she was harmed in a way the law ordinarily protects, that the defendant breached a duty the he had toward the plaintiff; and that in breaching the duty, the defendant caused the plaintiff's harm attributable to the defendant as his doing.³

Coleman sees his project as one of “conceptual explanation.” He is quite methodologically sophisticated and candid in his defense of a “pragmatic method” for conceptual analysis,⁴ but his general goal of unpacking the “analytical core” of an important social practice has been a staple of western philosophy since Socrates and his interlocutors discussed the “meaning” of justice, knowledge, piety, and the like in Plato’s dialogues. Tort law is obviously a social practice of great interest and importance, so an improved understanding of its analytical core seems an entirely worthwhile intellectual project.

Consider as a start the way the state of California “defines” a tort.

A civil wrong, wherein one person’s conduct causes a compensable injury to the person, property, or recognized interest of another, in violation of a duty imposed by law.⁵

The law professor may lament that “this does not tell us very much,”⁶ but the philosopher can appreciate the elegance of the definition. A good pragmatist like Coleman can further highlight how definitions such as this bring together in a helpful way other central legal and moral concepts.

[T]ort law is best explained by corrective justice. The central concepts of tort law—harm, cause, repair, fault, and the like—hang together in a set of inferential relations that reflect a principle of corrective justice. This principle is thus embodied in and explains tort law, and tort law, in turn, articulates that principle and makes its requirements explicit.⁷

The structural element of torts that Coleman most famously emphasizes is the “bilateral” nature of tort litigation.

Tort law's structural core is represented by case-by-case adjudication in which particular victims seek redress for certain losses from those whom they claim are responsible. In the event that a victim's claim to recovery is vindicated, her right to recover takes the form of a judgment against the defendant ... Any plausible account of tort law must explain why claims are taken up on a case-by-case fashion. A plausible account must also explain the bilateral nature of litigation.⁸

Ernest Weinrib goes so far as to suggest that tort liability, and more generally private law liability, exhibits a unique normative structure because of the phenomenon of bilaterality.

The most striking feature of private law is that it directly connects two particular parties through the phenomenon of liability. Both procedure and doctrine express this connection. Procedurally, litigation in private law takes the form of a claim that a particular plaintiff presses against a particular defendant. Doctrinally, requirements such as the causation of harm attest to the dependence of the plaintiff's claim on a wrong suffered at the defendant's hand. In singling out these two parties and bringing them together in this way, private law looks to neither the litigants individually nor to the interests of the community as a whole, but to the bipolar relationship of liability.⁹

In the much older vocabulary in which conceptual analysis was conducted in the last century, both what Coleman calls the "case by case" adjudication, and the phenomenon "biliterality" or "bipolarity," seem to be logically necessary conditions for a tort. If theories of torts are intended to provide quasi-descriptive conceptual accounts of what is involved whenever there is a legal tort, then it certainly counts hugely in favor of the corrective justice models that

they so nicely include these features. At the same time, it is a serious liability for economic accounts of torts, since they are entirely silent about these necessary conceptual ingredients.

The problem that confronts economic analysis, or any entirely forward-looking theory of tort law, is that it seems to ignore the point that litigants are brought together in a case because one alleges that the other has harmed her in a way that she had no right to do. Litigants do not come to court in order to provide the judge with an opportunity to pursue or refine his vision of optimal risk reduction. Rather they seek to have their claims vindicated: to secure an official pronouncement concerning who had the right to do what to whom. The judge is there, in some sense to serve them—to do justice between them; they are not there to serve the judge in his policy-making capacity. ... Under economic analysis the litigants to a tort suit bear no normatively significant relationship to one another, or in any case, do not do so in any fundamental way.¹⁰

But things surely couldn't be quite as simple as this. Why would there continue to be any scholarly controversy at all? Any economic lawyer would have to concede that case-by-case adjudication and bilaterality are parts of the essential nature of our concept of tort law.

III.

Assume with Aristotle that the purpose of tort law is to do "corrective justice," that is, to restore to a person what has been wrongly taken from him rather than to improve the allocation of resources. It would still be necessary to inquire into the source of the norms on the basis of which certain conduct is deemed wrongful. The source might be economic. Efforts have been made to explain ethical concepts, including the sense of being wronged, in economic (or closely related biological) terms. It would be

consistent with these efforts to find that the tort concept of fault has an economic rationale also.¹¹

What are we to make statements like the above from Landis and Posner? Two of most accomplished economic lawyers seem willing to grant that corrective justice models of torts capture something essential in this central legal practice. They insist, of course, that something deeply economic is required for an adequate understanding of torts, but they seem not at all troubled by characteristics like the essential bilaterality of tort litigation. It seems as though the economist is explaining something altogether different than the conceptual structure of a tort action.

Landis and Posner remain concerned with questions of resource allocation, though they are willing to concede that this issue is not part of the meaning of a tort.

[T]he common law of torts is best explained as if the judges who created the law through decisions operating as precedents in later cases were trying to promote efficient resource allocation.¹²

According to the economist, what allows appeals courts judges' decisions to further the social goal of efficient resource allocation is that the common law rules created in these decisions work to bring this about.

Since the early 1970s a number of studies have appeared that apply economic theory to the common law – the body of English and American judge-made rules, many of great antiquity, governing torts (civil wrongs that result in personal injury or property damage), contracts, property, crimes, and many other fields of private conduct. Surprisingly, many of these studies find that common law rules can best be

explained as if they were designed to increase economic efficiency.¹³

One is almost tempted to say that the corrective justice theorists and the economic lawyers are simply talking past one another. Coleman, Weinrib, and their colleagues are attempting to map out the conceptual ingredients, the meaning if you will, of tort law. Posner, Landis, and their colleagues are engaged in an entirely different project, exploring the economic structure and benefits to current tort law rules. But if this is really the case, why do the principles see themselves as engaged in philosophical battle? We must step back for a bit, and explore more generally what is involved in offering an explanation, whether of a concept, legal practice, scientific phenomenon, or day to day occurrence.

VI.

To explain the phenomena in the world of our experience, to answer the question of "Why?" rather than only the question of "What?", is one of the foremost objectives of all rational inquiry; and especially, scientific research in its various branches strives to go beyond a mere description of its subject matter by providing an explanation of the phenomena it investigates."¹⁴

Philosophers of science have long been preoccupied with the nature of (scientific) explanations. One very general, but still viable, theory treats them as answers to "*why*-questions." This view of explanation is helpful in understanding the activities of not just the natural scientist ("Why is the light from distant galaxies shifted to the red end of the spectrum?"), but also the historian ("Why

did Europe go to war in 1914?”), the literary critic (“Why does Hamlet procrastinate?”), and the tort theorist (“Why did the court rule for the dock owner in *Vincent v. Lake Erie Transportation Co.*?”). Much of the work in many academic disciplines is the production of explanations or detailed answers to *why*-questions.

For most of us of a non-post-modern bent, we are also interested in the *right, correct, true, or best* explanation. Theoreticians in the specific disciplines have had much to say about constitutes the best scientific, historical, etc., explanation. If we generalize, however, I believe we are left with very broad accounts that, though abstract, are still useful.

There is, of course, a problem about how one is to judge that one hypothesis is sufficiently better than another hypothesis. Presumably such a judgment will be based on considerations such as which hypothesis is simpler, which is more plausible, which explains more, which is less *ad hoc*, and so forth.¹⁵

And even more insightfully:

the only very general thing we can say about what we do when we evaluate evidence is rather coarse-grained. When we *do* prefer one member of the list of rivals to the others, we do so simply because it comports best with the data we have, against the background of our relevant knowledge. Some rivals score better in some ways, others in others. We weigh the tugs in all directions and judge one rival to ‘fit’ better than the others, all things considered. . . . So at bottom it is always a complex judgment of fit: which one fits most easily with everything we know about the matter.¹⁶

The notion of the *best* explanation is deeply ambiguous. When confronted with a list of possible explanations for some occurrence we may prefer one for a number of very different reasons.

- It is the clearest.
- It gets at the heart of the matter.
- It calls attention to factors easily overlooked.
- It is the cutest.
- It is the most plausible.
- It is the only one on the list that is accurate.
- It is true.
- *Et cetera.*

It is easy to imagine circumstances where one candidate was the clearest, another the most insightful, yet another the cutest, and all of them are “true.”

Consider a bit of office gossip. Our colleague, Jane, was asked out for a dinner date last week. Although it is none of our business, we can’t help ourselves, and we shameless speculate as to why she accepted the invitation. We manage to assemble quite a list of explanatory candidates.

- E₁. Dick is tall, dark, and handsome.
- E₂. Jane broke up with her long time boyfriend a couple of months ago.
- E₃. Jane has had a crush on Dick since junior high.
- E₄. Jane was charmed by the humble, almost shy, way in which Dick asked her.

- E₅. Dick uttered the words, "would you like to have dinner with me on Saturday?" with the intention of ***mak[ing] a social engagement with***, Jane. Jane so understood Dick's utterance and responded, "I'd love to," because she was also desirous of a social engagement.¹⁷
- E₆. Jane's central nervous system was in the complicated state *XYZ* at the time of Dick's call.

It is certainly possible that one of these explanations is perceived to be false, and that another is being proposed in its place. Say Betty is confused about Jane's history, and Michael corrects her. "No, no, that wasn't the guy she had a crush in junior high, in fact she never met Dick before last year's Christmas party. She said yes because she was charmed by the sweet way that he phrased the invitation." In such a circumstance, E₄ is being proposed as a ***rival*** to E₃. But as the hypotheses are stated in our list, they could all be simultaneously true.

There still could be debate, even if they are all true, about whether one or the other is better. Perhaps Dorothy thinks that Carl's observation about Dick's looks really misses the point since Jane generally doesn't care about those things, but is convinced that Jane has really wanted a chance to go out ever since the breakup. Unless our office is a neuroscience laboratory, probably none of us care very much what Jane's neurological state was. And, unless we are lexicographers, the conceptual explanation about the meaning of a date, is probably not that important either.

VII.

[T]he dominant function of the fault system is to generate rules of liability that if followed will bring about, at least approximately, the efficient – cost justified – level of accidents and safety.¹⁸

Let us take economic lawyers at their word. Richard Posner says nothing about proposing a conceptual model of torts, but rather a hypothesis about the function of the central liability rule in contemporary tort law. Treating the economic analysis of torts as a functional explanation seems much truer to the economic lawyer's project, and also nicely explains why the corrective justice theorists seem at times to be talking right past the economists. Functional explanations have been the subject of a good deal of philosophical reflection in the past half century, and much of that work will prove useful in assessing the economic lawyer's proposal.

Jules Coleman is open to the possibility that Posner and his colleagues are indeed offering functional accounts of torts and tort rules.

Rather than seeking to reduce to economic terms the concepts that figure in tort law, this approach appeals to its supposed economic function as part of a causal explanation of the existence and shape of tort law. The best-known successful examples of functional explanations of this sort are found in evolutionary biology, in which natural selection and other evolutionary pressures are proposed as mechanisms that provide a causal link between a purpose or function and a biological trait that is said to serve that function. The problem here ... is that economic analysis fails to satisfy the requirements of a formally adequate functional explanation of this kind.¹⁹

Coleman's discussion of the functional treatment of torts is a perplexing mixture of, at times, insightful philosophical analysis, and at other times, almost conceptual blindness.

Let us begin our investigation of all of this tricky theoretical terrain with a model of what a functional explanation ultimately is. The philosopher of science, Larry Wright, proposed a textbook example of what Coleman called in the jurisprudential context, a "conceptual explanation" for functions.

The function of X is Z iff:

- (i) Z is a consequence (result) of X's being there,
- (ii) X is there because it does (results in) Z²⁰

Wright calls the central structure of this model a "consequence etiology" because the existence of the entity having the consequence – the result, function, or goal – is causally explained by the very fact that the entity tends to have this consequence. This structure is remarkably robust, since it covers both goal-directed accounts of behavior, "the rabbit is running in order to escape the dog," and functional accounts, "the function of the heart is to pump blood," as well as teleological explanations that candidly appeal to conscious intent and design, "the function of this switch is to adjust the volume," and those where consciousness and agency are completely absent, "the function of the leopard's spots are camouflage."

If we import Posner's functional hypothesis into Wright's model we get the following.

The [dominant] function of *the fault system* is [the] *generation rules of liability that if followed will bring about, at least approximately, the efficient – cost justified – level of accidents and safety* iff:

- (i) [the] *generation rules of liability that if followed will bring about, at least approximately, the efficient – cost justified – level of accidents and safety* is a consequence (result) of *the fault system's* being there,
- (ii) *the fault system* is there because it does (results in) *the efficient – cost justified – level of accidents and safety* .

We are provisionally granting the empirical claims made in necessary condition

(i). What is of central concern is the consequence-etiology account of how the proposed function came to be there in necessary condition (ii).

Coleman correctly notes that:

[o]f course, the simple fact that some practice P has outcome X cannot warrant the claim that X is the reason why P exists, explains P, or is P's purpose or function.²¹

The nose beautifully supports eyeglasses, but it would be ludicrous to suppose that the function of the nose is to support eyeglasses. The consequence-etiology demands a plausible causal account of how the entity, behavior, or practice came to be there.

Coleman quite reasonably rejects one account, though an account never really offered by economic lawyers.

The most straightforward sense in which an outcome can be called the function of practice is the case where the practice is intended by its designers or participants to produce the outcome. This kind of explanation is not "functional" in the sense we are

now considering, because the function enters into the explanation only in so far as it is the aim or goal of some *intentional agent*. Clearly this cannot be the nature of the economic explanation, since no one wishes to claim that the many individuals who contributed over the centuries to the development of our tort institutions were aiming at economic efficiency.²²

Depending on whose history we are reading, economic considerations first entered jurisprudence with Holmes,²³ Learned Hand,²⁴ or Coase and Calabresi.²⁵ But at it's earliest, this is long after the changes in common law rules that are being postulated as having the function of increasing efficiency. Whatever else is going on, it is not a conscious movement among judges and academic lawyers.

Short of a thoroughly Darwinian account, Coleman sees no alternative to the intentional account of functionality.

The challenge to the economic analysis should now be apparent. It begins by rejecting the self-understandings of the developers and participants in the practice, and in so doing it rejects the strategy of offering an intentional explanation. Yet typical economic analysis of tort law (or of any other body of law, for that matter) offers no causal mechanism either—no analogue of random mutation and natural selection. It appears to remain at the level of a Just-So-Story.²⁶

Just-So-Stories have bad press in contemporary evolutionary theory. The standard argument is that it is too easy to simply speculate about the adaptive value of some structural or behavioral feature, but if the biologist cannot offer evidence for its specific evolutionary history, that hypothesis remains entirely

speculative. As stated, though, this objection shows a very narrow view of science. Lots of the most interesting and important theories started out as Just-So-Stories – purely theoretical accounts, with little causal detail or empirical evidence. The economic account would be worthy of our attention even if it is, at this stage of our understanding, merely theoretical. But as I shall argue, Posner and his colleagues have offered a fairly detailed causal account.

VIII.

People who say that judges are not economists are sometimes confused about the meaning of economics. If economics were limited to explicitly economic phenomena such as monopoly and inflation, it would be indeed odd to describe a judge deciding an accident case as engaged in economic reasoning. But if economics is defined as the science of rational choice or (equivalently) as the attempt to get the most from scarce resources, it becomes natural to conceive of a judge in an accident case as trying to ascertain whether the injurer and the victim were behaving carefully in the sense of trying to minimize the sum of expected-accident and accident-avoidance costs. Of course the judge will not use these words (even to himself) to describe what he is doing; but the vocabulary of economics is designed for the use of scholars, not judges.²⁷

The economic lawyer's causal account of the function of tort rules begins with a notorious theory of basic human nature. Consider Posner's characterization of economic behavior, and the behavior of the judges whose decisions shape the course of tort law.

The basic assumption of economics that guides the version of economic analysis of law that I shall be presenting is that people are rational maximizers of their satisfactions—*all* people (with the exception of

small children and the profoundly retarded) in *all* of their activities (except when under the influence of psychosis or similarly deranged through drug or alcohol abuse) that involve choice.²⁸

The hypothesis of economic rationality is offered here as an empirical explanation of human behavior. Obviously, if this hypothesis proves “false,” if a better explanation of human behavior is discovered, then the economic analysis of law, or anything else for that matter, becomes uninteresting to the point of moot. Let us grant the economist her assumption, at least for the present purposes.

Now since judges, particularly appeals court justices, are taken to be economically rational, and because their job obviously involves choice, it follows almost deductively, that their basic human nature (*homo economus*) will play a central role in the decisions they reach, and in a common law system, the law that they fashion.

The judges thus have a dual role: to interpret interest-group deals embodied in legislation and to provide the basic public service of authoritative dispute resolution. They perform the latter function not only by deciding cases in accordance with preexisting norms, but also—especially in the Anglo-American legal system—by elaborating those norms. They fashioned the common law out of customary practices, out of ideas borrowed from statutes and other legal systems (for example, Roman law), and out of their own conceptions of public policy. The law they created exhibits, according to the economic theory that I am expounding, a remarkable (though not total ...) substantive consistency. It is as if the judges *wanted* to adopt rules, procedures, and case outcomes that would maximize society’s wealth.²⁹

Granting these empirical – psychological, perhaps biological – assumptions about what make people tick, I don't see how anyone can deny that the economist's analysis of how torts have developed, and what we discover in current tort rules, is potentially explanatory.

At first glance it is very hard to understand Coleman's charge that the economic analysis of torts fails to articulate a causal mechanism for the evolution of tort rules. Judges, so the theory goes, are economic actors, and their basic rationality causes their decisions to move in the direction of great efficiency. This account seems paradigmatically causal. Coleman, of course, understands all of this, but discounts it, I believe, because of a fundamental disagreement about the ultimate nature of law.

Posner is candidly a legal realist, although he prefers the title of pragmatist.

Holmes argued that law is a prediction of what judges will do when confronted with a specific set of facts. I ... now merely note its consistency with the more conventional positivist view of the judge as rule applier and, on occasion, rule modifier or creator. On this view, law is the activity of licensed person, the judges, rather than a body of concepts (rules, principles, whatever). Judges employ discretion to change rules, and discretion is not "principled," although it may be bounded by principles. Indeed, to speak of "employing discretion" may be too grand. Judges change rules, period. And in the end the law is what the judges do with your case.³⁰

And Coleman is an equally candid legal positivist, indeed, what he calls an inclusive positivist.

Law exists (is actual) when there is a rule of recognition and rules valid under it that are generally followed by the majority of the population. Acceptance of the rule of recognition from the internal point of view by officials is a conceptual requirement of the possibility of law; acceptance from the internal point of view by the bulk of the populace is neither a conceptual nor an efficiency requirement.³¹

Both are quite knowledgeable and sophisticated jurisprudential theorists. But all their carefully drawn distinctions and amendments do not change the basic fact that for Posner law is essentially the behavior of judges, and for Coleman it is essentially a system of rules. Realists admit that the behavior of judges creates rules, at least ones that govern easy cases, while positivists admit that judges (exercising discretion) create and change rules. But what is primary, what gets at the analytic core of tort law, what gives us fundamental insight into what tort law *is*, these answers by realists and the positivists appear to constitute genuine rivals.

We are now in a position to address the charge that the economic analysis cannot provide a plausible causal mechanism for the changes in tort rules in the direction of increased efficiency. The economic lawyer asserts that most tort rules, as with the common law generally, are simply the result of judicial behavior. The economic lawyer sees the judge's basic human nature the same as any other normal human being – a rational utility maximizer. At a conscious level the judge may be thinking about precedent, abstract issues of social justice, or maybe nothing so grandiose at all. It doesn't matter; the judge is hardwired,

as are we all, to think economically. Increased economic efficiency is the result of judges living in more complicated and knowledgeable times simply doing their thing – making choices (we call them legal decisions) from the inevitable perspective of economic actors. Or so says the economist.

IX.

The development of the common law of tort has been marked by the opposition between two major theories. The first holds that a plaintiff should be entitled, *prima facie*, to recover from a defendant who has caused him harm only if the defendant intended to harm the plaintiff or failed to take reasonable steps to avoid inflicting the harm. The alternative theory, that of strict liability, holds the defendant *prima facie* liable for the harm caused whether or not either of the further conditions relating to negligence and intent is satisfied.

It is most likely that theories of strict liability were dominant during the formative years of the common law. But during the nineteenth century, both in England and in this country, there was a decided and express shift toward theories of negligence.³²

Epstein's history is one of theories, not simply rules. Most scholars agree that the development of tort rules of liability are more complicated than a simple change from strict liability to negligence, but at the same time, they agree that there has been a pronounced increase in the prominence and scope of the negligence standard. Why has tort law developed in this way?

What is the best explanation of the development of tort law? Is it the model of corrective justice, or that of economic efficiency? These questions only make sense if we find a way of articulating the explanatory theories as genuinely

rival accounts of the history of common law rules. We have already seen that the most plausible reading of the law and economics treatments of torts is to see them as functional explanations. Many corrective justice interpretations of the development of tort rules can also be seen as offering functional accounts. Let us focus on the following *why*-question. Why has the history of tort rules moved in the direction it has – in particular, why have we seen an ascendance of the negligence rule? The following two explanations now have, at least the appearance of logical rivalry.

- T_e. The function of the development of tort rules, in particular the ascendancy of the negligence rule, is greater efficiency in resource allocation.
- T_j. The function of the development of tort rules, in particular the ascendancy of the negligence rule, is to accommodate to changing conditions and shared moral understanding our informed sense of what is just and fair.

Even as so stated, a case can be made that these two functional accounts are not truly rival. We have seen how the economist can concede that at a conscious level judges may think in terms of justice, but still be operating at a more basic level as economic actors. Perhaps, in the final analysis, there really is no theoretical dispute at all. It makes sense that the economic lawyer is simply trying to explain something at a completely different level than the moral philosopher or the corrective justice theorists. To some degree, that is exactly what Posner and his colleagues have been claiming for more than a generation.

I am disinclined to take this route, however. There is a hint of false modesty in the law and economics hypothesis. I side with Coleman here. The efficiency model of torts is offered as an insight into the basic nature of tort law, not some interesting footnote to general human, and therefore judicial, nature. One way to see the genuinely rival nature of the two accounts is to take much more seriously the language that judges use in their opinions, their scholarly writing, and to themselves as they ponder their decisions. I agree with Dworkin that jurisprudence must always incorporate both internal and external explanations of legal phenomena.

We need a social theory of the law, but it must be jurisprudential just for that reason. Theories that ignore the structure of legal argument for supposedly larger questions of history and society are therefore perverse. They ignore questions about the internal character of legal argument, so their explanations are impoverished and defective, like innumerate histories of mathematics, whether written in the language of Hegel or of Skinner.³³

To Dworkin's "questions of history and society," we can add economics, and to his "written in the language of Hegel or Skinner," we include Adam Smith or Richard Posner. But here, of course, I show my true colors. I am no legal realist, though I agree that social, and indeed biological, factors play a significant role in the decisions our judges make. Neither am I a positivist – though of course legal rules matter. Ultimately, the sort of corrective justice account of torts I want to defend demands the perspective of natural law.

X.

Society was not invented by reasoning men. It evolved as part of our nature. It is as much a product of our genes as our bodies are. To understand it we must look inside our brains at the instincts for creating and exploiting social bonds that are there. We must also look at other animals to see how the essentially competitive business of evolution can sometimes give rise to cooperative instincts.³⁴

Many theorists have speculated that the theistic presuppositions of classical natural law could be conceptually divorced from a moral theory based on an intimate connection between practical reasonableness, moral truth, and ethical discovery. Much of traditional western moral theory can be seen in this light, and in jurisprudence the work of Fuller, Dworkin, and even John Finnis, argue that natural law need not depend on "a brooding omnipresence in the sky."³⁵ I want to investigate the possibility of deriving a recognizable ancestor to the classical natural law tradition from contemporary evolutionary biology.

Classical natural lawyers explain objective moral truth and knowledge, and the behavioral inclination to what is morally required, in terms of God's infinite power, wisdom, and love. This is exactly the sort of explanatory framework proposed by eighteenth and early nineteenth century for accounting for the manifest structure, order and purpose in the biological world. Darwin changed the plausibility of that earlier explanation, not by disproving the existence of God, nor even discrediting the design hypothesis *per se*. Natural selection simply offered a thoroughly secular and elegant account of biological order; one that was not logically inconsistent with God's existence or planning, but did not

depend on His existence one way or another. Secular natural law takes a similar stand on matters theological. An omnipotent, omniscient, and morally perfect creator may well exist, but His existence is not required for moral truth, knowledge and inclination.

Intriguing evidence in game theory, animal ecology, and evolutionary psychology all indicate that we all have behavioral phenotypes that lead us to behave, think, and feel in generally the same way regardless of the culture we find ourselves in – in short, that we have a species specific human nature.³⁶ Part of our human nature I suggest is a genetic predisposition to behave cooperatively – i.e., morally – and to see and judge the behavior of others, as well as ourselves, according to the standard of cooperation.

Biologically based moral realism was first speculated about, though not in those terms of course, by Darwin. In the past one hundred and fifty years many others have seen the attractions of such an approach to moral objectivity. At the same time, though, critics have always vociferously assailed the approach. One line of attack can by now, I hope, safely be dismissed. It is certainly true that many early advocates of the biological approach have, consciously or unconsciously, framed their arguments in racist and sexist terms. Modern evolutionary psychology, however, is overwhelmingly innocent of that ancient charge. Much more troubling, however, is an argument at the core of evolutionary biology itself. An instinct to behave morally seems to imply a kind of group selection that many biologists believe is, if not impossible, exceedingly

rare and fragile in the natural world. The problem is easy enough to see. If we are genetically inclined to cooperate with one another, this provides a very rich medium for the evolution of cheaters. As we will see shortly, cooperating with cooperators, bring reproductive advantages to all. But imagine a mutant strain inclined to take advantage of others' cooperation, fake it and pretend to be cooperator, but ruthlessly cheat at every opportunity. Surely the genotype that produces cheaters would thrive in a world of cooperators, and soon that world would be dominated by cheaters.

We all know that there are people who behave in precisely this way, and consistent with the biological speculation going on in this section, it's reasonable to suppose that an inclination to behave selfishly is also part of our genetic heritage – indeed this is exactly what classical and neoclassical economics has been saying since the time of Adam Smith. But, biologically based natural law insists that the individual reproductive advantages of being a cooperator in a world of fellow cooperators is so great that cooperative genotypes can be evolutionarily stable in spite of the short term benefits of cheating. All of this is biologically controversial, of course. Standard wisdom since the 1960s says it's close to impossible.³⁷ But, recent advances in evolutionary theory including gene selection, kin selection, and reciprocal altruism offer more attractive possibilities for biological moral realism. And finally, a very recent and compelling line of argument candidly embraces group selection as a viable evolutionary perspective, and explicitly includes moral thinking as its central example.³⁸ In

much the same way that secular natural law had to let the empirical facts from cultural anthropology concerning cross-cultural values determine its fate, the same is true of empirical facts in evolutionary biology. I remain confident that evolutionary theory will vindicate this approach, but must confess that in spite of promising proposals, much work remains to be done on this crucial aspect of the theory.

XI.

All human societies have language. As far as we know they always did; language was not invented by some groups and spread to others like agriculture or the alphabet. . . . The grammars of industrial societies are no more complex than the grammars of hunter-gatherers. . . . Within societies, individual humans are proficient language users regardless of intelligence, social status, or level of education. Children are fluent speakers of complex grammatical sentences by the age of three, without benefit of formal instruction. They are capable of inventing languages that are more systematic than those they hear, showing resemblances to languages that they have never heard, and obey grammatical principles for which there is no evidence in their environments.³⁹

[T]he ability to use a natural language belongs more to the study of human biology than human culture; it is a topic like echolocation in bats or stereopsis in monkeys, not like writing or the wheel.⁴⁰

Noam Chomsky used intentionally loaded language in describing the biological approach to language. He spoke of an innate, indeed candidly Cartesian, knowledge of the underlying grammar of human natural languages. Now, since the surface grammars of languages can vary in significant ways (one need only think of native English speakers trying to master German as adults),

the knowledge would have to be of a “deep structure,” abstract, and somehow encoded in the human brain. Chomsky has, for fifty years, remained confident that something like this deep structure would be discovered by linguists analyzing natural languages, and cognitive scientists analyzing the human central nervous system.

Secular natural law postulates an analogous underlying moral syntax to most, if not all, culturally embodied moral systems – a deep-structure if you will, to human moral thinking and perception. This hypothesis provides a starting point for explaining a host of theoretical worries about absolute moral truth. The ontological home for objective values is a behavioral and neural phenotype. Our knowledge of them is a direct intuition, but not a philosophically mysterious one, but similar to the immediate perception of correct grammar in Chomsky’s famous piece of non-sense – “Colorless green ideas sleep ferociously.” And there is nothing motivationally peculiar in humans having an innate inclination to behave morally. Indeed, on the evolutionary account it was precisely this behavioral phenotype that was being selected for.

Certainly two defining properties of our species are our ability to use language, and to develop culture. The ability to adapt to social and environmental circumstances in a time frame of years and decades, rather than generations and eons, has given human beings a flexibility that is probably unique in the biological world. It is no particular explanatory mystery, therefore, that we see apparently great cultural diversity in human moral practices and

perceptions. Again, to push the analogy with language, human natural languages exhibit great diversity in semantics and "surface-grammar." The question, of course, is ultimately empirical. Can we discover an underlying deep-structure to human moral and legal practices?

XII.

There used to be a discipline called speculative psychology. It wasn't quite philosophy because it was concerned with empirical theory construction. It wasn't quite psychology because it wasn't an empirical science. But it used the methods of both philosophy and psychology because it was dedicated to the notion that scientific theories should be both conceptually disciplined and empirically constrained.⁴¹

Jerry Fodor believed in 1975, and continues to believe, that something like Chomsky's universal grammar underlies, not just human natural language, but much of human thought itself. Much of contemporary cognitive science, with little acknowledgement of Fodor, can be seen as a sustained effort to test this provocative and controversial hypothesis.

Secular natural law might be seen as a kind of speculative moral and legal psychology. Very general and abstract models will be offered as candidates for the deep structure of moral and legal thinking. It is almost impossible to over-stress that these models will be intentionally over simple. They will provide, not a complete representation of a legal system, let alone the detailed architecture of human neural structure which constrains human normative and legal thinking.

One very intriguing abstract model comes from contemporary game theory. Consider the classic prisoner's dilemma.

PRISONER'S DILEMMA

		Player B	
		Cooperates	Fails to Cooperate
Player A	Cooperate	3,3	0,5
	Fails to Cooperate	5,0	1,1

Player A, whose payoff is indicated first, reasons that failing to cooperate will maximize her utility, since if B cooperates, 5 is greater than 3, and if B fails to cooperate, 1 is greater than 0. Failing to cooperate is A's dominant strategy. By exactly the same reasoning, it is also the dominant strategy for B. Hence, both players if they are rational will fail to cooperate. The paradox, of course, is that utility maximization has doomed each player to a clearly sub-optimal payoff; both could receive 3 rather than 1, if they only cooperated with each other. A and B need to find a way to mutually constrain their choices so that failing to cooperate is not an option.

The best strategy in a single encounter prisoner's dilemma game is not necessarily the best in circumstances where there are repeated encounters. It remains true, of course, that the non-cooperative play will always yield the maximum payoff, but it appears that trust and cooperation can "evolve" through a process of mutual reward and punishment. This was convincingly shown in a fascinating line of research conducted by Robert Axelrod.⁴² He conducted tournaments for computer programs where the contestants played "iterated" prisoner's dilemma games. Each program played all others 200 times

consecutively in the first tournament, and approximately 200 times in the second. All of the submitted programs were required to play each other, as well as a copy of themselves, and a program that randomly cooperated. Both tournaments had a clear winner charmingly named Tit-for-tat.

It is almost impossible to talk about Tit-for-tat without resorting to anthropomorphic language – the program is “nice” because it cooperates on the first play. It “rewards” cooperation by its opponent by continuing to cooperate as long as its opponent cooperates. It “refuses to be exploited” by retaliating with non-cooperation whenever the opponents fails to cooperate. And it “doesn’t hold grudges,” “forgives,” and begins to cooperate again as soon as the opponent does. All of this is the product of amazingly simple programmed instructions. Tit-for-tat cooperates on the first play, and on any subsequent play n , it plays what the opponent played previously on $n-1$.

It is worth remembering that Tit-for-tat can never “win” any single contest during the tournament. The best it can do is when it plays a universally cooperative program, or itself, is to end in a tie. Tit-for-tat could easily have lost in Axelrod’s tournament. All we need do is consider its fate had all of its opponents been straightforward utility maximizers. Had there been at least eighty-one competing programs in the tournament, Tit-for-tat loses to all of them. Furthermore, the relatively high number of opponents required for Tit-for-tat’s loss is something of an artifact of the rules of the tournament. Had Tit-for-tat not been allowed to play itself – and thereby rack up 600 points in this one

round of the tournament – it would have lost to a field of non-cooperators of any size. Tit-for-tat's fate is even more disappointing in a field of suckers who cooperate no matter what, with one straightforward maximizer. Here it loses dramatically, with the scale getting worse the higher number of naive cooperators.

But, by far the most artificial aspect of Tit-for-tat's remarkable success is a taken for granted part of the prisoner's dilemma. Every single play in Axelrod's tournament is perfectly transparent. Each opponent knows exactly what plays have previously been made. There is no opportunity for covert cheating and non-cooperation. There would be, of course, significantly less crime and non-cooperation in the human social world, were every single one of our actions knowable by anyone who was curious. Both happily (for those of us who value personal privacy), and sadly (for efficient law enforcement and general cooperation), however, the world of the iterated prisoner's dilemma is not the contingent world that humans find themselves operating in.

None of this is meant to disparage Tit-for-tat, or Axelrod's methodology. The strategy proved remarkably robust in the original tournaments. And, most intriguing of all, it seems to be instantiated in some general form in the biological world. Several examples have been discussed, most of them somewhat grisly. Consider the case of:

vampire bats, which spend the day in hollow trees and the night searching for large animals whose blood they can quietly sip from small cuts surreptitiously made in their skin. It is a precarious

life, because a bat occasionally returns hungry, having either failed to find an animal or been prevented from drinking its fill from the wound. . . . Luckily, however, for the bats, when they do get a meal they can usually drink more than they immediately need and the surplus can be donated to another bat by regurgitating some blood. This is a generous act, and the bats find themselves in a prisoner's dilemma . . . [The bats] seem to play Tit-for-tat. A bat that has donated blood in the past will receive blood from a previous donee; a bat that has refused blood will be refused blood in turn.⁴³

Natural selection has clearly stumbled on a strategy for ensuring cooperation between vampire bats. Might not a very similar strategy apply to humans? Indeed, I am suggesting that Tit-for-tat articulates at some very basic, and of course, grossly oversimplified level the deep-structure of interpersonal justice, at least within the context of two-person prisoner's dilemma interactions.

XIII.

The just person is fit for society because he has internalized the idea of mutual benefit, so that in choosing his course of action he gives primary consideration to the prospect of realizing the cooperative outcome. If he is able to bring about, or may reasonably expect to bring about, an outcome that is both (nearly) fair and (nearly) optimal, then he chooses to do so; only if he may not reasonably expect this does he choose to maximize his own utility.⁴⁴

Most contemporary research on justice in moral philosophy, political theory, and academic law focuses on social justice – the normative parameters of the relationship between individuals and the state. As important and interesting as this work is, it glosses over a more basic notion of justice. Moral

philosophy, and certainly the law, is ultimately concerned with what is right and fair between any two parties (individuals, corporations, or the state and the individual). Can a plausible standard of interpersonal justice be articulated in a prisoner's dilemma context?

David Gauthier has defended precisely such a theory. His starting point is the rationality of mutual constraint – the fundamental lesson of the prisoner's dilemma. It can be in one's best interest to be constrained, even when the precluded choice is in one's short-term best interest. It is better for you and I to be constrained to only cooperate, for if we are not constrained, if we behave as "straightforward maximizers," we will each earn considerably less than had we cooperated in the first place. Gauthier puts a candidly normative spin on all this game theory and rational behavior, arguing that the fundamental value that emerges from contemplation of the prisoner's dilemma is justice.

Just individuals, according to Gauthier, have internalized an entirely new way of thinking. Rather than reasoning as rational decision theory would have it – as utility or straightforward maximizers – they act from motives of constrained maximization.

The constrained maximizer considers (i) whether the outcome, should everyone do so, be nearly fair and optimal, and (ii) whether the outcome she realistically expects should she do so affords her greater utility than universal non-cooperation. If both these conditions are satisfied she bases her action on the joint strategy.⁴⁵

We have here, I would argue, a nice abstract characterization of the winning

strategy exhibited by Tit-for-tat, and the biological altruism we saw in the vampire bats' behavior. I believe it also comes as close as anything currently available to articulating the neurological "deep structure" of human beings' predisposition to behave cooperatively.

Gauthier is careful to note two very important considerations that are essential in order for constrained maximization to be rational. First, the strategy only makes sense if one is reasonably confident that one is interacting with another constrained maximizer. If one's opponent in the prisoner's dilemma is a straightforward maximizer, the rational play is of course non-cooperation – just individuals are not stupid nor suckers. Second, constrained maximization requires a pre-reflective disposition to behave justly. If individuals calculate their personal utility every time they interact with another, they will simply be sophisticated straightforward maximizers. And a society of straightforward maximizers, however sophisticated, will be a Hobbesian state of nature, constrained only perhaps by the forces of law and culture.

For Gauthier the move from being a straightforward maximizer, to a just constrained maximizer is one of rationality, learning and culture. I have no quarrel with any of those factors, but suggest that normal human beings are already programmed to see the world, and to behave, as constrained maximizers. Living together as members of a social species necessitates mutual cooperation, and it would be surprising indeed, if the forces of natural selection

had not laid down such a normative deep-structure as a part of our species-specific human nature.

XIV.

[J]ustice in transactions between man and man is a sort of equality indeed and injustice is a sort of inequality. . . . [Therefore] the judge tries to equalize things by means of the penalty, taking away the gain of the assailant.⁴⁶

The argument above did not argue that Tit-for-tat **was** the deep-structure of justice or moral truth, but that it provided **oversimplified model** of what it might be. Recognition of this point is crucial as we turn our attention to corrective justice. I will be treating this ancient theory of legal justice as another candidate for the deep-structure of biologically based moral realism, of secular natural law. This model, however, will clearly be closer to the “surface” than Tit-for-tat. Rather than focusing on game theory, computer tournaments, and totally abstract and fictitious payoffs, we will be forced to consider real people engaged in real disputes and instances of non-cooperation. My strategy, here, will mirror that of Rawls in *A Theory of Justice*.⁴⁷ I will argue that corrective justice much better explains our considered intuitions about what the law should be doing, and actual legal practice and common law evolution, than teleological theories like utilitarianism and law as economics.

Aristotle’s view of corrective justice in the *Nicomachean Ethics* is candidly, unapologetically, backward focused. Justice, and ultimately the purpose of law, is to reinstitute cooperation between parties by restoring them, as far as is

possible, to the conditions they found themselves in before the breakdown in cooperation. It goes without saying, of course, that many circumstances will require that the “equalization” be highly symbolic – prison time for a vehicular manslaughter, or financial compensation for a wrongful death. Corrective justice sees the basic atoms out of which the system is derived as individuals encountering, cooperating and failing to cooperate, and wrongfully harming one another. The law is a mechanism superimposed on these individuals for reestablishing cooperation when it has been threatened or broken down completely.

Teleological theories of law, utilitarianism and law and economics, also treat law as a mechanism for maintaining and enhancing social cooperation. It is essentially forward-looking, and is an appropriate way of conceiving law when one is concerned with designing good social policy. The questions that dominate when law is understood teleologically concern future outcomes – what will the effect of this legislation or ruling be for social cooperation in the future? Will there be less crime?, more contracts?, fewer accidents?, greater economic efficiency? The corrective justice/law and economics debate is often conducted as if the scholar had to choose sides in a war of fundamental values. But as John Rawls clear saw over fifty years ago, there are two concepts of legal rules, or better, two ways of thinking about the law.⁴⁸ We have already seen how champions of each side in the contemporary debate have each conceded that legal thinking is concerned with both corrective justice and economic efficiency.

I am anxious to defend more than an academic compromise. I fully concede the insights that the economic study of law provides. And I further concede that appeals court judges, not just professional policy makers, are professionally required to take the future social costs and benefits of their decisions into account when ruling in a "hard case."⁴⁹ Secular natural law insists, nevertheless, that the corrective justice reading of legal justice is closer to our biological deep-structure, and best accords with our considered intuitions about what is right and fair in controversial legal circumstances. I will take a very small step to defending that very large claim with two brief case studies.

VIII.

However problematic its current role in justice, there is no doubt that vengeance is the original passion for justice. The word *justice* in the Old Testament and in Homer too virtually always refers to revenge. Throughout most of history of the concept of justice has always been far more concerned with the punishment of crimes and the balancing of wrongs than it has been with the fair distribution of goods and services.⁵⁰

The retributive theory of criminal punishment has always had the faint odor of paradox. Why is not the state's investment of time, money, and emotion all for the sake of making a criminal's life miserable an exercise in two wrongs trying to make a right? The fine, after all, or the prison sentence, or the execution is hardly going to undo the previous wrong that criminal has already produced. Now from a teleological perspective, of course, there is no mystery at all. If the point of law, of legal punishment, is trying to most effectively manage

future criminal behavior, the price paid for punishment may well more than compensated for through the deterrence, or in the case of the criminal himself, the prevention, of future crimes. But the retributivist seems left with little more than vague metaphors of cosmic scales of justice being thrown out of balance, and the function of punishment being an attempt to bring those scales back into balance.

Our culture seems preoccupied with retribution. When there is a concern with crime, the result seems always a “get tough” policy – three strikes, mandatory sentencing, and the like. It seems to matter little that these policies are hugely expensive, and that there is little empirical evidence that they accomplish much. Nevertheless, ordinary citizens seem convinced that serious crime demands serious legal punishment. And although there seems little consensus at all about what “serious punishment” should amount to, there seems to be wide consensus, at least among my students, that the current system is too soft on criminals.

I am not arguing for a second that I agree with my students, or the more red neck of my fellow citizens. But I think that this widely held sentiment tells us something about the objective soundness of the retributive instinct. The intuition that it would be unjust not to punish criminals is precisely what biologically based secular natural law would lead us to expect. Our moral deep-structure was formed in ancestor species, long before the advent of complex societies and sophisticated legal systems. Justice in this context was always a

matter of cooperation between individuals. Corrective justice quite correctly focuses precisely on these kinds of interactions. Parties occasionally harm one another (they act uncooperatively), and something must be done about it. The focus is to the past. How can I (we?) do something about it? The criminal must pay a kind of compensation. We must equalize the past transaction, so that there can be cooperation in future ones. This is precisely what Tit-for-tat did when opponents acted uncooperatively, the program "retaliated." Once the debt was paid, however, Tit-for-tat was willing to begin cooperating again.

One philosopher who has seen all of this very clearly is Robert Solomon. His frustratingly ignored book, *A Passion for Justice*, argues that justice is as much of a deep human emotion, as it is an intellectual or normative ideal.⁵¹ Solomon discusses the retributive theory in terms of vengeance, and categorizes it as a negative emotion. But if we soften the language just a little bit, the feeling of the objective rightness of retributive punishment is in no way a negative emotion. According to secular natural law, it is a basic component of human nature, and one that has clear adaptive value for our species.

IX.

We are satisfied that the character of the storm was such that it would have been highly imprudent for the master of the Reynolds to have attempted to leave the dock or to have permitted his vessel to drift away from it. . . . It is claimed by the respondent that it was negligence to moor the boat at an exposed part of the wharf, and to continue in that position after it became apparent that the storm was to be more than usually severe. We do not agree with this position.⁵²

I want to conclude our discussion of corrective justice by examining a very famous case in the history of tort law. In November of 1905 the steamship Reynolds was docked in Duluth. As she finished discharging her cargo a severe storm developed and the ship's master, after failing to find a tug, kept his ship moored to the dock, and weathered the storm. Unfortunately, the ship was constantly thrown against the dock, causing damages of as much as \$1,200 to the dock owner. He sued to recover the damages, and the trial court ruled in his favor, awarding the plaintiffs \$500. The defendant then appealed.

The case is such a puzzle to tort scholars because of the principle of negligence in accident law. Simply causing damage to someone is almost never sufficient grounds for recovery. My company makes a better mousetrap, and your mousetrap factory goes belly up. Certainly I have harmed you in a significant way, but absent special, almost certainly illegal, circumstances, you have no legitimate legal complaint against me. By 1905 American tort law had firmly adopted the negligence principle. In order to recover, you must show that I failed to take appropriate precautions, that I acted negligently in causing your loss. Indeed, the plaintiffs claimed that the master had acted negligently by leaving his steamship tightly lashed to the dock throughout the storm.

But the Minnesota Supreme Court rejected that argument. Since the Minnesota Supreme Court failed to see negligence on the master's part, one would have expected that the judgment would have been reversed. But this was not the Court's reasoning at all.

This is not a case where life or property was menaced by any object or thing belonging to the plaintiffs, the destruction of which became necessary to prevent the threatened disaster. Nor it is a case where, because of the act of God, or unavoidable accident, the infliction of the injury was beyond the control of the defendant, but one where the defendant prudently and advisedly availed itself of the plaintiffs' property for the purpose of preserving its own more valuable property, and the plaintiffs are entitled to compensation for the injury done.

Order affirmed.⁵³

The question that has vexed tort scholars is why the plaintiffs are entitled to compensation.

Economic law theorists can easily spin plausible account of the efficiency of such a precedent.⁵⁴ Corrective justice advocates have had a much harder time, at least those wedded to the Aristotlean articulation:

it makes no difference whether a good man has defrauded a bad man or a bad man a good one, nor whether is is a good or bad man that has committed adultery; the law looks only to the distinctive character of the injury, and treats the parties as equal, if one is in the wrong and the other is being wronged, and if one inflicted injury and the other has received it.⁵⁵

As Richard Posner has stressed for Aristotle's concept of corrective justice, "the duty to rectify is based not on the fact of injury alone but on the conjunction of injury and wrongdoing."⁵⁶ And as we have seen, there is no wrongdoing on the part of anyone.

Different scholars aligning themselves with the corrective justice camp have suggested different ways to avoid the problem. Richard Epstein argues

that the concept of negligence is morally otiose, and tort law should return to a standard of strict liability.⁵⁷ George Fletcher sees the ruling as correct because of an inequality of risks the parties imposed on each other – the ship’s master clearly put the dock owner at risk, but the inverse of the risk placing clearly does not hold.⁵⁸ Earnest Weinrib claims that the dispute should not have been seen as a tort at all, but as a case of restitution.⁵⁹ And Jules Coleman argues that cases like *Vincent* show us that there is such a thing as wrongful loss that corrective justice must redress even in the absence of wrong doing on the part of the defendant.⁶⁰

Secular natural law is neutral between these attempts to square standard tort theory with the ruling in *Vincent*, though I confess to more comfort with Coleman’s analysis. What I do want to argue, however, that the court’s ruling makes, not only legal, but normative sense. Through the fault of no one, a seriously uncooperative situation between the ship’s owners, and the dock owners’ had arisen. The court saw that this was unjust, and that correction was required. The intuition that there was an inequity or injustice is obvious to anyone with a normal normative deep-structure. And the court’s backward-looking attempt at correction also makes sense from this perspective.

ENDNOTES

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- ³ Coleman, *op. cit.*, pp. xiv-xv.
- ⁴ *Ibid*, pp. 3-12.
- ⁵ Cited in Edward J. Kionka, *Torts: Injuries to Persons and Property* (St. Paul: West Publishing Company, 1977), p. 5.
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- ⁷ Coleman, *op. cit.*, pp. 9-10.
- ⁸ *Ibid*, p. 16.
- ⁹ Ernest J. Weinrib, *The Idea of Private Law* (Cambridge, MA: Harvard, 1995), pp. 1-2.
- ¹⁰ Coleman, *op. cit.*, p. 17.
- ¹¹ William M. Landis and Richard A. Posner, *The Economic Structure of Tort Law* (Cambridge, MA: Harvard University Press, 1987), p. 14.
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- ²⁸ Posner, 1990, *op cit*, p. 353.
- ²⁹ *Ibid*, pp. 355-6.
- ³⁰ *Ibid*, 1989, p. 21.
- ³¹ Coleman, *op cit*, p. 76
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- ³³ Ronald Dworkin, *Law's Empire* (Cambridge, MA: Harvard, 1986), p. 14.
- ³⁴ Matt Ridley *The Origins of Virtue* (New York: Viking, 1996), pp. 6-7.
- ³⁵ See, Lon L. Fuller, *The Morality of Law*, Revised Edition (New Haven: Yale University Press, 1964), Dworkin, *op. cit*, and John Finnis, *Natural Law and Natural Rights* (Oxford: Clarendon Press, 1980)
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