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THE BIOLOGICAL BASIS OF HUMAN RIGHTS

HUGH GIBBONS* AND NICHOLAS SKINNER**

INTRODUCTION

Human rights emerge as a result of biological processes and states occurring in the human brain. This article traces the emergence of these rights from their root source in the human brain to contemporary American law in seven causal steps.

1. Brains cause minds.
2. Minds cause wills.
3. Wills cause undertakings.
4. Undertakings cause risks.
5. Risks cause duties.
6. Duties cause rights.
7. Rights cause law.

That law is unique to the human species is unarguable and that it is the product of the human brain rather than, say, the kidney, is clear. We will investigate the connections by which the one produces the other, for, we will argue, there is an invariant core to the law attributable to nothing more than the fact that every human has a human brain. Our view is limited to *Homo Sapiens* because it is the only species known to have such an institution. It is not surprising, under this biological view, that jurors with no training in legal reasoning are trusted to resolve complex legal problems justly, for each one has the only piece of equipment necessary to the task. It is as if their brains possessed a justice detector that enabled them to parse any set of facts, even the most technical, and generate a just verdict.¹

Our argument is similar in form to the theory of the biological basis of language,

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¹ In a comprehensive review of the published empirical studies of jury performance, the data supported the proposition that juries perform their task as well as judges. See Neil Vidmar, *The Performance of the American Civil Jury: An Empirical Perspective*, 40 ARIZ. L. REV. 849 (1998).

most often associated with Noam Chomsky.² Language, like law, shows enormous variation from culture to culture. But in both language and law these apparent differences mask an underlying unity between them. The deep structure of both language and (we argue) law is invariant across the species. French and English both use nouns and verbs; French and American law both recognizes duties, rights, and sovereignty. In both cases the similarity in deep structure is caused by the fact that they emerge from human biology.³

The biological basis of human rights and law that emerges to enforce them is not of simply academic interest. It infuses every facet of all legal rules. Where a rule inquires into the state of mind of a defendant as she performed an action, for example, it is obviously tapping deeply into the biological basis of law—there is something “worse” about intending to do wrong than in causing a wrong accidentally. That sense of wrongness is deeply rooted in our brains. In this paper we advance the proposition that the theory that we set out here, which we will call the Theory of Biological Jurisprudence (“TBJ”) describes how human rights emerge from human biology.

The verb in each one of the seven steps from brains to rights set out above is “cause.” We mean “cause” in its strongest sense, in the sense that one thing makes another thing happen.⁴ Overall, then, we argue that brains cause rights in a very literal sense. It is that fact that accounts for the universality of law and justice (Americans have no more claim on having brains than any other group of humans) and for the requirement of equality.

² A somewhat reengineered version of which was brilliantly advanced by STEPHEN PINKER, *THE LANGUAGE INSTINCT* (1994). John Rawls suggests a similar biological basis for law and language with the role that he gives the “sense of justice” in his theory. “One may regard a theory of justice as describing our sense of justice. . . . A useful comparison here is with the problem of describing the sense of grammaticality that we have for the sentences of our native language.” JOHN RAWLS, *A THEORY OF JUSTICE* 46 (1971).

³ If a causal relationship between biology and a cultural institution is difficult to see, it might be helpful to look at it in the context of a different animal. In this passage, Edward O. Wilson outlines a moral structure that would be appropriate for the African termite, put in the words a termite leader might use in a termite Fourth of July speech:

It is now possible to express the imperatives of moral behavior with precision. These imperatives are self-evident and universal. They are the very essence of termitity. They include . . . the centrality of colony life amidst the richness of war and trade with other colonies; the sanctity of the physiological caste system; the evil of personal rights (the colony is ALL!); our deep love for the royal siblings allowed to reproduce.

EDWARD O. WILSON, *CONSILIENCE* 148 (1998). In a legal system that emerged from such biology it might be perfectly just to kill and eat a termite who asserted individual rights. Such is not the nature of human biology.

⁴ “The basic notion of causation, the notion which occurs in statements of causings and on which all the other uses of “cause” depend, is the notion of making something happen: in the most primitive sense, when C causes E, C makes E happen.” JOHN SEARLE, *INTENTIONALITY: AN ESSAY IN THE PHILOSOPHY OF THE MIND* 123 (1983) [hereinafter “SEARLE, INTENTIONALITY”].

There is surely more involved in causing law than simple biology. Product liability law, for example, required an enormous set of circumstances, from mass marketing to courts to printed opinions and on and on, before it emerged. Each of those factors is a "cause" in the "but for" sense of causation used in law: take one away and product liability law does not happen. "But for" causation is too weak for our analysis; it sweeps passive background conditions into the causal stew along with the active forces that drive the change. The active force, the "efficient cause" in an Aristotelian sense, emerges from human biology, from the brain itself.⁵ Note that we do not mean to suggest that human biology is simply a background cause of law; that is axiomatic: without biology there would be nothing living, let alone humans or law. We argue that human biology is the active force in the production of rights. We view the law as an organic, evolving entity; speaking about the "body of law" emerging to enforce rights is not entirely metaphorical.⁶

1. BRAINS CAUSE MINDS

"I am, therefore I think."⁷

No question has caused greater philosophical mischief than the problem of the relationship between brain and mind, the "mind/body" problem. If the mind and the body are two different things, of completely different kind, how do they relate to each other? How does wanting to raise your arm cause your arm to rise? It now appears that this problem was an illusion all along. There is only a problem of the "relationship" between mind and brain if the two are somehow metaphysically distinct, brain over here and mind over there, roughly corresponding to the physical world on the one hand and to the incorporeal spiritual realm on the other.

The Theory of Biological Jurisprudence rejects this dualism by locating both the brain and the mind in the world in which we live. In other words, within the context of TBJ, minds are equally real, equally actual features of our world right along with brains that cause them. To understand why this is true, we must briefly examine the ontology⁸ of the mind along with that of the rest of the world in which the mind is

⁵ The central role of the brain in law is exemplified in the almost universal shift to cessation of brain function as the criterion for death. Whatever it is about humans that entitles them to legal standing ends when the brain stops working. "It appears that once brain death has been determined . . . no criminal or civil liability will result from disconnecting the life-support devices" *Dority v. Super. Ct.*, 193 Cal.Rptr. 288, 291 (Ct. App. 1983).

⁶ The field of law and biology has emerged during the past quarter-century, stimulated by the Gruter Institute for Law and Behavioral Research. Researchers in the field use biological systems as models to study the way that legal systems work, use biological descriptions to develop a physical basis for law (much like the undertaking in this paper), and use biological descriptions to help design more effective legal mechanisms. See E. Donald Elliott, *Law and Biology: The New Synthesis?* 41 ST. LOUIS U. L.J. 576 (1997).

⁷ RICHARD RESTAK, *THE BRAIN HAS A MIND OF ITS OWN* 86 (1991).

⁸ We have drawn heavily on the work of John Searle to understand the proposition that brains cause minds. Searle distinguishes between ontology, epistemology and causation in a way that is important later in this paper: "There is a distinction between answers to the

inextricably embedded.

Mountains, rain, atoms, and molecules are good examples of entities that exist independent of our consciousness of them. Mount Everest, for example, exists independently of consciousness because it was formed when the subcontinent we call India collided with Asia, beginning 50 million years ago. As a result, Mount Everest depended on plate tectonics for its existence and these powerful geological processes proceeded independently of anyone's mind. Indeed, Mount Everest itself would have emerged as a feature of the ontological landscape⁹ even if we never evolved as a species.

Our brains provide another good example of something that exists independently of consciousness. If that were not the case, your brain would cease to exist whenever you went into a dreamless sleeping state. But that is not what happens. Brains do not depend on consciousness for their existence. When consciousness turns off, brains continue.

What about consciousness itself? On what does it depend?¹⁰ Can minds exist without brains?¹¹ This is an important question because our goal is to provide a causal account of the emergence of human rights and law that enforces these rights as ultimately grounded in the human brain. But, if minds are caused by things outside the brain, law is grounded on them, not on the brain. John Locke adopted precisely this view when he proposed that God is the source of man's rights.¹² To

questions, What is it? (ontology), How do we find out about it? (epistemology), and What does it do? (causation). For example, in the case of the heart, the ontology is that it is a large piece of muscle tissue in the chest cavity; the epistemology is that we find out about it by using stethoscopes, EKGs, and in a pinch we can open up the chest and have a look; and the causation is that the heart pumps blood through the body." JOHN SEARLE, *THE REDISCOVERY OF THE MIND* 18 (1994) [hereinafter "SEARLE, REDISCOVERY"].

⁹ We use the term "ontological landscape" to refer to that which actually exists at an instant in time.

¹⁰ In proceedings involving the administration of psychotropic drugs to those who are mentally ill or to defendants who are too disturbed to stand trial, there is no doubt whatever what the law's answer to that question: psychotropic drugs cause a change in the brain, which causes a beneficial change in the way the brain causes the subject's mind to operate, hopefully enabling the mind to generate effective behavior. In law, the generative force underlying the mind is the brain. *See, e.g., Enis v. Dep't. of Health and Social Servs.*, 962 F. Supp. 1192 (D.Wis. 1991).

¹¹ Mind/body dualism has never found its way into the law, which has unswervingly held to the idea that once the brain is dead the mind is gone. Murderers have had no luck arguing that their victims continue to live on mentally.

"If the victim has been without respiration long enough to have caused permanent and irreversible brain damage, the victim will forever remain in a vegetative state, a mere repository for organs capable of surviving if transplanted elsewhere, but incapable of regenerating the brain of the corpse in which they are contained." *People v. Mitchell*, 183 Cal.Rptr. 166, 170 (Ct. App. 1982).

¹² "God, having made man such a creature that, in His own judgment, it was not good for him to be alone, put him under strong obligations of necessity, convenience, and inclination, to drive him into society, as well as fitted him with understanding and language to continue

fashion a complete account of the emergence of law, Locke would include God.¹³ But this kind of explanation, grounded in theological claims, is irreducibly mysterious and creates intractable disputes about morality and religion. When it comes to explaining how law emerges as a feature of our world, whose God do we believe? And what are we to do when we are confronted with conflicting religious or moral conceptions?¹⁴

A jurisprudence grounded in human biology avoids this trap by presupposing that brains cause minds and that we need look no further for the ultimate sources of law. John Searle makes the point succinctly, "Mental phenomena, all mental phenomena whether conscious or unconscious, visual or auditory, pains, tickles, itches, thoughts, indeed, all of our mental life, are caused by processes going on in the brain."¹⁵

There is no logical necessity connected with this observation. For example, we can imagine worlds in which cinderblocks and refrigerators, possessing no brains, are nonetheless conscious. However, in our world, there is no evidence that either cinder blocks or refrigerators actually possess the causal capacity that your brain exhibits when it produces the consciousness you are experiencing as you read these words.

Law itself adopts this same straightforward approach to the source of consciousness in its definition of death, "An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions or (2) irreversible cessation of all functions of the entire brain, including the brain stem is dead. . . ."¹⁶ In states that have adopted brain-related criteria of death it is possible for a human being to be physically alive yet legally dead because the brain no longer has the

and enjoy it." JOHN LOCKE, *CONCERNING CIVIL GOVERNMENT* 77 (Ernest Rhys ed., J.M. Dent & Sons 1924)(1690).

¹³ Hobbes would as well. "I have derived the rights of sovereign power, and the duty of subjects, hitherto from the principles of nature only But in what I am next to handle, which is the nature and rights of a Christian Commonwealth, whereof there dependeth much upon supernatural revelations of the will of God." THOMAS HOBBS, *LEVIATHAN*, Ch. 32 (Ernest Rhys ed., J.M. Dent & Sons 1940)(1651).

¹⁴ The Declaration of Independence adopts the Lockean approach. "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights. . . ." But the list of grievances against the King of England in the Declaration is a very human one, conveying an indictment of the King's breaches of duty that is very sympathetic to TBJ's account of the emergence of rights. "[W]hen a long train of abuses and usurpations, pursuing invariably the same Object evinces a desire to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government. . . ." Here, the right to throw off the king emerges from the king's wrongs in exactly the manner accounted for in TBJ. The law that emerged from the Declaration rests not at all on the Creator; in fact, it distances law to the greatest extent possible from religious doctrine or transcendental sources of authority through the First Amendment. *THE DECLARATION OF INDEPENDENCE* para. 2 (U.S. 1776).

¹⁵ JOHN SEARLE, *MINDS, BRAINS AND SCIENCE* 18 (1984) [hereinafter "SEARLE, MINDS, BRAINS"].

¹⁶ BLACK'S LAW DICTIONARY 400 (6th ed. West 1991)[hereinafter BLACK's].

capacity to produce consciousness.¹⁷ Even in states without "brain death" statutes, a person is legally dead when there is a permanent cessation of vital body functions. The law is not tempted to declare that after the physical death of a person he is nonetheless legally alive because his mind continues to exist on some incorporeal plane. Similarly, defendants in a murder case are not allowed to offer a defense based on the spiritual survival of the victim. When the brain is dead or the body is permanently incapable of supporting life, the person is legally dead without reference to sources of consciousness outside the dead person's body.

The law's focus on consciousness as it actually occurs in living brains is exhibited whenever the state charges a person with a crime that has a *mens rea* component. For example, "malice aforethought" is the *mens rea* or mental component of the crime of murder. It is the intent, at the time of a killing to willfully take the life of a human being.¹⁸ Moreover, "intent" is legally defined as "a state of mind in which a person seeks to accomplish a given result through a course of action."¹⁹ Intent is treated in law as a central reality, as real as the brain and far more legally significant.

The "state of mind" is not treated by the law as a mere abstraction. Instead, it is viewed as a profoundly concrete feature of the defendant's consciousness that is just as real and just as actual as Mount Everest itself. If the requisite intent was actually present in the defendant's mind, she may be convicted of murder if the government can prove all the other elements of murder beyond a reasonable doubt. Conversely, if the requisite intent was not actually present in the defendant's mind, she must be acquitted of the charge.

How can a person's mind be considered as real a feature of the ontological landscape as Mount Everest? There must be some way in which the ontology of consciousness differs from the ontology of mind-independent features of the world, like Mount Everest. We have already observed that mountains, rain, atoms, molecules, and brains are good examples of entities that exist independently of consciousness. In this sense, they are objective features of the ontological landscape. The mind is not. John Searle's explanation helps us understand why conscious states are not in the same ontological category as things like mountains, rain, and molecules.

"Consciousness" refers to those states of sentience and awareness that typically begin when we awake from a dreamless sleep and continue until we go to sleep again or fall into a coma or die or otherwise become "unconscious." Dreams are a form of consciousness though of course quite different from full waking states.

¹⁷ In *Crobons v. Wyant*, 790 F.2d 475 (6th Cir. 1986), the defendants executed a change of beneficiary on a life insurance policy before the doctor had declared the insured dead. The insurance company paid the proceeds to the defendants on the assumption that a change of beneficiary form executed while the insured is alive is valid. But the victorious plaintiff, who was the prior beneficiary, showed that the insured had suffered "irreversible cessation of spontaneous brain function" prior to the execution of the change of beneficiary, so it was nugatory because she was dead and the policy was payable.

¹⁸ BLACK'S, *supra* note 17, at 957.

¹⁹ BLACK'S, *supra* note 17, at 810.

Consciousness so defined switches off and on.²⁰

Consciousness itself is a feature of the ontological landscape that is present whenever people are awake or dreaming. We do not ordinarily say that Mount Everest is dreaming or that it is awake. But most of us would accept the proposition that we are conscious as we write these words and you are conscious as you read them. Conscious states are internal, qualitative, and subjective,²¹ i.e., conscious states are subjective (mind-dependent) ontological features of the actual world. Unlike atoms, molecules, and mountains, they do not exist independently of being experienced by human beings and other sentient creatures. Remove all human beings and other sentient organisms from the ontological landscape and conscious states no longer exist.

Conscious states are internal — they actually go on inside our bodies.²² Indeed, “[a]ll of our thoughts and feelings are caused by processes inside the brain.”²³ Since conscious states are caused by neurophysiological processes in the brain they “[a]re as much a part of our biological natural history as digestion, mitosis, meiosis, or enzyme secretion.”²⁴ Indeed, consciousness is an ordinary biological phenomenon, like digestion, except that it is a special feature of the brain in the same sense that digestion is a feature of the alimentary canal. And consciousness is a higher-level or emergent property of the brain in the same sense that solidity is a higher-level or emergent property of water molecules when water turns into ice.²⁵ It follows that if conscious states are caused by neurophysiological processes in the brain, Mount Everest itself cannot be awake or dreaming because there is no evidence that the rock that comprises it has the causal capacity to produce consciousness, any more than my brain has the capacity to digest food.

The brain does a lot more than cause consciousness, a fact that we demonstrate every time we fall into a dreamless sleep. At that point we are experiencing nothing, but other features of the brain are at work regulating our heart and respiration rates, and so on. As we awake from deep sleep, mind emerges as our experiences of the day begin. The situation is somewhat analogous to what happens when we turn on a flashlight. With the switch turned off, the flashlight has a lot of features, one of which is the capacity to cause light to come out of one end. When the switch is turned on, that causal capacity is realized.

Brains similarly have the capacity to cause minds.²⁶ Our experience of ourselves

²⁰ John Searle, *The Mystery of Consciousness*, N.Y. REV. OF BOOKS, Nov. 2, 1995, at 60.

²¹ JOHN SEARLE, *MIND, LANGUAGE, AND SOCIETY*, PHILOSOPHY IN THE REAL WORLD 41 (1998) [hereinafter “SEARLE, MIND, LANGUAGE”].

²² *Id.*

²³ SEARLE, *MINDS, BRAINS*, *supra* note 15, at 19.

²⁴ SEARLE, *REDISCOVERY*, *supra* note 9, at 1.

²⁵ SEARLE, *REDISCOVERY*, *supra* note 9, at 14.

²⁶ The case of *Heller v. Doe*, 509 U.S. 312 (1993) provides a particularly interesting illustration of the causal link between brains and minds. The case involved the standard of proof in involuntary commitment proceedings. The clear and convincing standard had been applied, but the court held that, while that standard was adequate in mental retardation cases, in mental illness cases the trial court should use proof beyond reasonable doubt. Retardation,

and of the world “turns on” as we become conscious. But to say that brains cause, make, or produce minds is not to say that minds can be reduced to brains, any more than we can say that the light coming out of the flashlight is reducible to the flashlight itself. It is not the case that there is a bunch of light trapped in the flashlight, which we let out by turning on the switch. Light is an *emergent* feature of the flashlight caused by it but not reducible to it. Similarly, mind is an emergent feature of the brain, a fact that has concrete legal significance: A person possessed of a brain that is permanently incapable of producing experience is no longer a legally significant entity.²⁷ Rights require the capacity to experience. When that feature is gone, legal significance is gone.

Possessing a brain that has the potential to cause mind is a necessary, but not sufficient, condition for legal personhood. If it were, law would be open to many species of animals as it is clear that subjective experience – mind – is an emergent feature of brains generally; not simply of human brains. Sentience, once seen as an exclusive feature of human nature, is now recognized as a feature of most any sort of brain. But sentience is not a sufficient foundation for law. Law emerges from a mind that has a particular ability, the ability to experience itself as the cause of changes in the world that it produces, that is, a mind that experiences responsibility.

2. MINDS CAUSE WILLS

Brains cause minds and minds in turn cause changes in our world. The mind causes change when “[i]t brings about the very state of affairs that it has been thinking about.”²⁸ Several natural capacities of the mind interact to produce these changes. Minds have the capacity to imagine the world being constituted differently. For instance, I can imagine cereal and milk or bacon and eggs sitting on the kitchen table, which is currently empty. Our minds also have the capacity to act on what we imagine. Thus, having “made up my mind” to eat cereal, rather than bacon and eggs, I can act on my choice by placing cereal and milk on the table.

My experience of acting to produce breakfast is an experience of myself as a cause, the kind of experience we refer to as “will.”²⁹ By comparison, if my arm were manipulated on invisible strings by another person, I would have no experience of acting, even if my hands were manipulated in a way that assembled my breakfast, because I would not perceive myself as the cause of those bodily movements. We have no difficulty telling the difference between acting and being acted upon. The reason we get it right is because the experience of acting invariably

it said, was easier to diagnose, being more clearly tied to testable brain function. With mental illness the brain/mind picture was less well understood, requiring a higher standard of proof.

²⁷ See, e.g., *Mitchell*, 183 Cal. Rptr. at 170.

²⁸ SEARLE, MINDS, BRAINS, *supra* note 15, at 61.

²⁹ SEARLE, INTENTIONALITY, *supra* note 4, at Chapter 4 uses “intentional causation” to denote the mind’s capacity for bringing about states of affairs that it envisions. We prefer to use the traditional term “will” to name this capacity, because a person’s will is the fundamental subject matter of many branches of jurisprudence, where the meaning of “will” coincides in our view with Searle’s term of art “intentional causation.”

involves the experience of causation.³⁰ When we are acting, we experience ourselves as the cause of the change we are seeking to bring about, and when we are being acted on the experience of causing (the will itself) is absent.

Will is evinced whenever the mind acts on alternatives it can envision to produce desired changes in the ontological landscape. These changes can be very modest.³¹ For example, my arm is currently resting on the table, but I can imagine it being up in the air or down at my side. Acting on these alternatives to rearrange the landscape of the world so that it coincides with the world that I envision simply involves raising my arm or lowering it to my side.

These are trivial examples of will. But the scope of changes wrought by the will can be enormous. Consider John F. Kennedy's decade-long commitment to put a man on the moon at a time in 1962 when NASA was struggling simply to achieve low earth orbit. Whether changes produced by minds are modest and terminate in the time it takes me to raise my arm, or enormous, sometimes spanning centuries, as in the case of the Great Wall of China, the human will is the source of these changes. But what exactly is it?

The will is a mind-dependent feature of the ontological landscape. This means that the will exhibits the subjective ontology of other conscious states like pain, and thirst. In other words, the will exists only in so far as it is being experienced. Subtract minds from our world and the will disappears as well. Yet the will's ontological dependence on the mind does not undermine its actuality. Other natural features of the ontological landscape exhibit similar dependencies. My brain depends on oxygen for its existence and Mount Everest would never have emerged as a feature of the world if India had not collided with Asia. But few would question the existence of my brain or of Mount Everest simply because they depend on other things for their existence. Ontological dependencies do not undermine the actuality of mountains, brains, minds, or wills. Mount Everest, my brain, and my will actually exist. However, Mount Everest and my brain exist independently of minds, while my will depends on my mind for its existence.³²

This specific conscious state goes on inside our heads, caused by processes in the brain. Conscious states are biological phenomena. Since the will is a conscious state it too is caused by human biology. Therefore, *the will is as much a part of human biology as the brain itself*. Since the will of a person is part of that person's mind-dependent biology, it is neither an abstraction nor a vague metaphysical category.

TBJ's ontological presuppositions regarding the will exactly match the law's understanding of this feature of the ontological landscape. Consider the legal definition of an act:

"Denotes external manifestation of an actor's will . . . [a]n effect produced in the

³⁰ SEARLE, INTENTIONALITY, *supra* note 4, at 123-124.

³¹ Other natural sources of change in the world are lightning bolts, running water, and sunlight.

³² Of course, your mind depends on your normally functioning, living brain for its existence, since brains cause minds.

external world by an exercise of the power of a person objectively, prompted by the intention and proximately caused by a motion of the will.”³³

This definition makes it clear that an actor’s will is an actual feature of the world and that the law looks to a person’s will to find the source or cause of her actions.³⁴ Within the context of this robust ontology, the source of a person’s actions is no mere abstraction.

Law emerges from the fact that humans experience themselves as the cause of the changes in the world that their behavior brings about³⁵. If, for example, I formulate a desire to raise my right arm and it, in fact, rises as I undertake the muscular actions necessary to make it happen, I perceive both the fact of it rising and the fact that my desire and actions caused that to happen. I am *responsible* for raising the arm. If, in the course of raising it, I knock over a priceless object which is destroyed when it falls, I will see myself as responsible for that as well, though I may not be so willing to claim responsibility for that result.

Law does not arise from the fact that we cause changes in the world, or the fox would be responsible for the death of the rabbit.³⁶ It is not enough that you do, in fact, cause your own perceptions. A fox, by killing a rabbit, is the cause in fact of its perception of eating rabbit, but law does not emerge from that fact. We recognize that the fox caused the rabbit’s death, but we don’t think of the fox as “responsible” for the rabbit’s death. The death of the rabbit is not a legally significant event. Causation alone is not enough. It is the experience of causation, i.e., the experience of responsibility for changes in the world the mind brings about, that makes all the difference. *Law arises from this experience*. Therefore, law is, in its very origins in the human brain, subjective³⁷. It exhibits the subjective mind-

³³ BLACK’S, *supra* note 17, at 25.

³⁴ The following jury instruction illustrates the unity in law between brain state and mental state, a unity that is visible in many criminal and all competency proceedings. “Do you find the defendant not guilty solely because the defendant, at the time of the alleged crime, was suffering from a mental disease or defect which rendered the defendant incapable of possessing the required criminal intent.” KAN. STAT. ANN. § 22-3221.

³⁵ “The acts of a person of sound mind and discretion are presumed to be the product of the person’s will. A person of sound mind and discretion is presumed to intend the natural and probable consequences of his act.” *Tucker v. Kemp*, 481 U.S. 1073, 1074 (1987).

³⁶ Law has long recognized, through the doctrine of automatism, that there are human actions for which the actor is not the cause, during which his will was not in control. The actor during convulsions, sleep, unconsciousness, hypnosis and seizure is an automaton, no more subject to law than a fox. In *Hammontree v. Jenner*, 97 Cal.Rptr. 739 (Ct. App. 1971), the defendant, who was at the wheel of his car when it entered the plaintiff’s shop and injured her, had suffered a *gran mal* seizure. The court held that jury’s finding that Jenner’s illness, and his exemplary measures to cope with it, made it impossible for him to have avoided the injury were supported by the evidence. In our terms, the fact that his control of the car was not a willed action and that his actions that were willed showed that he exercised due care in his driving, meant that no rights had been triggered in Mrs. Hammontree, despite her injuries.

³⁷ Laws based solely upon objective criteria are inevitably problematic for that reason. For administrative purposes it would be ideal, for example, to make the fact that one

dependent biology that all human experiences exhibit.

3. WILLS CAUSE UNDERTAKINGS

The experience of will is the experience of bringing about purposive changes in the world.³⁸ The purpose that drives the change is essential to the experience of will. Were you to push me from the roof of a building so that I fell onto a car parked in the street below, it would be clear that my body caused the damage suffered by the car. But that would not lead me to think (were I still in a thinking mood) that *I* caused the damage to the car. While my body is normally under the control of my will, in this case it would simply be an object acting under the control of your will. If, however, I had taunted you into pushing me off the roof, I might recognize myself as the cause of the damage to the car as well.

If I taunted you, intending perhaps to humiliate you by making you back down from your threat to me, that action is an undertaking—a purposive action intended to produce a change in the world. The undertaking is the fundamental unit of legal analysis. It is the smallest unit of willed action to which legal responsibility can attach. The undertaking is to law as the lepton is to physics, the ultimate element of analysis. Law requires a level of scrutiny that is not satisfied until the undertaking that lies at the heart of the course of conduct is identified.³⁹ The undertaking provides the fulcrum of the legal analysis.⁴⁰

An undertaking arises from a desire to reshape the world so that it satisfies more

exceeded the speed limit an automatic violation. But behavior is only a first approximation of the subjective state of the driver. There is an inescapable force compelling the judge to look further into the subjective cause of the objective reality. The defendant who explains that she was rushing an injured person to the emergency room will be heard.

³⁸ In *Domanus v. United States*, 961 F.2d 1323, 1326 (7th Cir. 1992), the court put it this way: “an act is willful if it is voluntary, conscious and intentional.” An action that satisfies those requirements is a willed undertaking to which legal responsibility attaches. To say that it is “conscious” is to say that it is a characteristic of mind, irreducibly subjective. To say it was “intentional” is to say that it was willed, behavior directed at producing a desired perception. To say that it was “voluntary” is to say that the actor was at liberty, that he or she was not acting under the compulsion of the will of another.

³⁹ Undertakings come in a profusion of types. One that has caused particular difficulty is the undertaking to act at some point in the future in ways that are not well defined at the time of the undertaking. When he agreed to become an emergency room doctor, Dr. Randolph was bound to render medical treatment to anyone who presented himself in the emergency room while he was on duty, however personally repulsive the patient. See *Hiser v. Randolph*, 617 P.2d 774 (Ariz. Ct. App. 1980). Undertakings have consequences, in Dr. Randolph’s case, a consequence that he did not find pleasing.

⁴⁰ Responsibility follows control. When the court said, “[w]hat is attacked in this suit is not something which the state has commanded [the county] to do . . . but rather something which the county with state acquiescence and cooperation has undertaken to do on its own volition,” it was laying the foundation for legal analysis by identifying the person who caused the change in the world that resulted in the damage. *Griffin v. County Sch. Bd.*, 377 U.S. 218, 228 (1964).

closely the purpose of the undertaking. Undertakings are biological processes, originating in the brains of human beings, representing complex causal transactions between minds and the rest of the world in which minds are inextricably embedded. In the simplest case, it might be no more than me transforming my world from one in which my coffee cup is empty into one in which it is full.⁴¹ The actions necessary to make that transformation—getting out of my chair, carrying my cup to the kitchen, pouring the coffee—are those that carry out the purpose. Since undertakings are purposive, these biological processes are profoundly teleological.

From a biological perspective, all undertakings are the same. The lawyer who undertakes to drive in an auto race is undertaking in exactly the same way and to the same extent as when she undertakes to reduce a witness on the stand to quivering uncertainty through vigorous cross examination. The first is a recreational undertaking while the second is a professional one, but those distinctions are irrelevant to the nature of the undertaking itself. We may well want to treat her one way if, through reckless driving, she causes an emotional collapse to another driver and another way if her devastating questioning causes an emotional collapse in the witness. That is not because there is a difference between the undertakings, but because there is a difference in the way that actions are justified.

Personal, professional, familial, official, all undertakings are "flat."⁴² They are simply an effort by a person or by a group of people to change the world from one configuration to another. Furthermore, viewed biologically, the actions of the state legislator, the administrative judge, and the police officer are all undertakings plain and simple, indistinguishable from the undertakings that they make in private life. There has been a tendency in law to grant immunity from law to some categories of public action, as if there are some actions which do not count as undertakings at all. Those immunities have broken down.⁴³ The most important development is the emergence of legal actions under 42 U.S.C. § 1983, which makes it clear that, even if they are done under color of law, all human actions are undertakings for which the individual doing the acting is responsible.

⁴¹ This description of an undertaking is an ostensive definition of the concept. Our aim in this paper is to use ostensive definitions as fully as possible in order to connect our argument with your own experience. We do not intend to prove anything to you, but rather to reveal to you a pattern that you are intimately a part of. Mind, will, undertaking and the other central phenomena of law are not *ideas* that we will use, they are *experiences* that as familiar to you as to us. The point of ostensive definitions is to connect our words directly to your experiences.

⁴² This is not a proposition that Thomas Hobbes would have agreed with. In the quote from *LEVIATHAN*, *supra* note 14, he makes it clear that those who wield the power of the sovereign are in a different category from the "subjects." Biological Jurisprudence rejects this metaphysical distinction.

⁴³ Where they have not broken down, they are under robust attack. See Diana Hassel, *Living a Lie: the Cost of Qualified Immunity*, 64 MO. L. REV. 123 (1999).

4. UNDERTAKINGS CAUSE RISKS

My trip to the kitchen to fill my cup with coffee, to recall the earlier illustration, placed no one else at risk⁴⁴ because I was alone in the kitchen. We can add some risk to the scenario by placing three lively four-year-olds in the kitchen with me. Under those conditions my decision to get the coffee has possible consequences for the three children in addition to the desired consequence for me. Should I spill hot coffee on one of the children, my will, as it transformed the world from one in which I was sitting at my desk with an empty coffee cup into one in which the cup is full would have produced one in which a child was burned. In this case we would not say that my hand had caused the burn, even though it might have been my hand which dropped the cup, but rather that it was *myself* that caused the burn, meaning that it was the result of my willed undertaking.⁴⁵

As each one of us acts to change the world into a world that we prefer, our actions change the conditions under which others are pursuing their own ends.⁴⁶ In a benign world, most of those effects are beneficial; the entrepreneur, in search of profit, offers wages to others, which increases their freedom—their set of perceived choices—by providing them with resources to carry out their plans. But even in a benign world these actions will frequently place others at risk, where “risk” means that the willed actions of one threaten to diminish the will of another.⁴⁷

There is an understandable asymmetry in human behavior between those situations in which a person creates a benefit for another, for which she is usually proud to claim responsibility, and those in which the person creates a detriment, for which she may have an impulse to deny responsibility. But responsibility attaches

⁴⁴ By “risk” we mean the risk of a reduction in the victim’s ability to pursue his or her purposes, a reduction in the range and vitality of that person’s will. We will refer to this as a diminution in the person’s freedom, or as “dimming their prospects.”

⁴⁵ Connecting unintended consequences to the willed undertaking of the actor is generally problematic. Consider *Francis v. Franklin*, 471 U.S. 307 (1965), in which an escaped prisoner approached the front door of a home with gun drawn. The owner responded to the prisoner’s knock, but slammed the door when he saw what was going on. That caused the gun to discharge, killing the owner. Was the discharge of the gun an undertaking by the prisoner? The jury said yes; the prisoner’s escape was clearly an undertaking, as was his approach to the door, from which the discharge followed directly. However, it is possible to reason this situation coherently to the opposite conclusion.

⁴⁶ The fraternity hazing cases provide an excellent illustration of this effect. Through hazing the actors attempt to make the pledge’s behavior conform to their desires. But the pledge is a willed actor as well. Is it not the case that any ill that befalls him is the result of a risk that he could have avoided by simply walking away, so that his failure to do so makes the hazing activities his own undertaking, part of joining the fraternity? The answer to this question is highly specific to the facts of the particular case. Compare *Nisbet v. Bucher*, 949 S.W.2d 111 (1997), with *Ex parte Barran*, 730 So.2d 203 (Ala. 1998).

⁴⁷ In the words of Justice Holmes: “One who makes a contract never can be absolutely certain that he will be able to perform it when the time comes, and the very essence of it is that he takes the risk within the limits of his undertaking.” *Day v. United States*, 245 U.S. 159, at 161 (1917),

to any willed action, individual or collective, for better or worse, that makes a change in the ontological landscape.⁴⁸

The requirement of a willed undertaking is nowhere clearer than the resolute failure of affirmative duties to emerge under American law. This failure is particularly extraordinary in light of the duty, recognized in many moral systems, to provide aid to others, particularly when doing so would impose little cost. But a rule that is enforced through suasion under a moral regime cannot automatically migrate to coercive enforcement under a legal regime, at least not a legal regime where human will is paramount.⁴⁹ Under a moral system one complies willingly; under law, one's will is driven to comply. To justify that, one must be seen to have brought it upon himself through an undertaking that created a risk.

5. RISKS CAUSE DUTIES

"The risk reasonably to be perceived defines the duty to be obeyed."⁵⁰

Law arises out of a confluence of two facts. First, the need for a willed species to adapt to the fact that the willed actions of one can diminish the will of another. That fact alone does not suggest the emergence of law, for the species could simply have decided, in effect, "so be it." If the will of one determines and delimits the will of another, the winner simply prospers while the loser declines. But it appears that no vertebrate species has adopted that strategy; all have some level of cooperative interaction. In lions, as well as humans, for example, the excitatory processes that get the lion ready to fight and kill are matched with inhibitory processes that suppress the impulse to use those powers on members of the same species. In humans, unlike lions, one of the inhibitory processes is law itself, enforcing the duties that emerge when one member of the species subjects another to risk.

Human rights and laws that enforce rights emerge as a result of the second fact: Biology apparently provides us with no durable basis upon which to prefer the will of one person over the will of another.⁵¹ Wills are flat, one to a person. No one is

⁴⁸ In *Homere v. State*, 370 N.Y.S.2d 246 (App. Div. 1975), the plaintiffs were injured by an assault from a patient who had been released from a state mental hospital earlier that day by a three doctor commission. The court held that neither the fact that it was a state institution nor the fact that the patient was a willed actor relieved the doctors and their employer from responsibility for their undertaking to provide care.

⁴⁹ *Tyler v. Korean Air Lines*, 928 F.2d 1167 (D.C. Cir. 1991), provides a particularly telling illustration. The plaintiff died when a Boeing 747 airliner was shot down by a Soviet fighter. The court dismissed claims by a deceased passenger against the United States that was based on the theory that, since the U.S. Air Force was tracking the flight, it could have, and should have, warned the flight that it was dangerously off course. The court said that the Air Force had undertaken to provide no such warning, nor had it undertaken any relationship from which a duty could be inferred. Without an undertaking, there was no legal responsibility.

⁵⁰ *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 100 (1928).

⁵¹ Historically, people have clearly established institutions that systematically prefer the will of some over others, according, for example, rights to one class of people while

more worthy than another unless by her own breaches of duty she demonstrates herself unworthy. Humans simply enter life, one will to a person, and act.⁵² And they do not easily accept preferences accorded to others but not to them. This is the sense in which all men are created equal. Every person has purposes and each person has nothing more than the ability to act to bring about those purposes. We may characterize some purposes as more lofty than others, or more clever, useful, or entertaining, but that does not alter the irreducible unity of will itself in each person. These truths are self-evident.

Duties emerge as if from this proposition: You must act with respect for the will of others because there is no basis upon which you can prefer your own will over the will of another person.⁵³ Such an impulse, were it implicit in the human mind,⁵⁴ would account for the emergence of the duties that form the doctrinal basis for law. But such an impulse appears to fly directly in the face of the purposive nature of will itself.⁵⁵ Will is the process by which we bring about what we want. What we want can harm others. Why should we take others into account as we act?

How strong is the impulse to accord others respect?⁵⁶ We need to traverse few

recognizing none in another class. All of those systems have been subject to erosion, except perhaps the special status accorded children, and that status is justified, to some extent, by the biology of maturation.

⁵² The famous statement from the Declaration of Independence, "[w]e hold these truths to be self-evident, that all men are created equal," has engendered great discussion. Is it not clear that humans are so manifestly different along so many dimensions as to make this nothing more than a pious sentiment? From the standpoint of TBJ the statement is quite literally true, not in any sense sentimental, for law rides upon human will and all humans are equally willed: There is one will, and only one will, to a person. People differ enormously in their ability to produce changes in the world, but the fact that they do produce perceptions for themselves is the irreducibly equal basis of law.

⁵³ The tricky part here is the concept of a "person," which appears to be a good deal more flexible than we might hope. It appears to be entirely possible for one person to define another as a member of a category that is not quite human, and therefore not quite entitled to respect.

⁵⁴ Note that we are not advancing this principle as a principle underlying law, but rather as an approximation of what appears to be the implicit inner constraint structure acting upon humans. Germain Grisez, Joseph Boyle, and John Finnis have rekindled interest in natural law with a theory set out in *Practical Principles, Moral Truth and Ultimate Ends*, 32 AM. J. JURIS. 99 (1987).

⁵⁵ We might think of human beings as acting under the control of two sets of values that operate, in a sense, perpendicular to each other. One set, the driving values, animates the person, defining for that person the perceptions that he will find rewarding. It is these values which, for example, determine how much sacrifice he is willing to make for them—the price he is willing to pay in the sacrifice of competing values—in the marketplace. The other values act to constrain the individual's pursuit of driving value. Constraining values are at work in the person who, desiring to drink a little blood, finds himself ordering pig's blood over the internet rather than biting the neck of his neighbor. Law is part of the regime of constraining values.

⁵⁶ The process by which the sense of responsibility emerges in each person is not well

pages of history to identify those who willingly dim the prospects of others. So much for an inner impulse of respect? Yet even the most hardened violators may act with respect toward some others⁵⁷ — their friends, family, association, ethnic group — suggesting that the impulse is at work, but the range of those who are entitled to respect is constrained. In fact, the history of law and nations is the history of the slow opening in the category of those who are entitled to respect. This country went through decades of turmoil before making clear in the Civil Rights Act of 1964 and the cases that have applied it that every human in the country who is not brain dead is entitled to respect. TBJ affirms this impulse.

Law itself is an emergent process. Some changes in law are simply adaptations to transitory changes in the world, like the change in court rules to allow legal documents to be submitted electronically. But there are deep changes in which the law seems to grow and where that growth reveals an invariant force that controls the direction of the change. The expansion in the category of those entitled to legal respect from adult white males to all humans is but one of those developments. The emergence of actionable dignitary harms in torts⁵⁸ is another, for the dignitary torts recognize harm in the refusal of respect itself, not in the physical results of the disrespectful act alone.

Duties come into existence only when one commences an undertaking that exposes another to risk. For example, my duty to repay the money I owe you emerged when I created a risk that you would not get it back, that is, when I borrowed the money. If I neither borrow nor steal money from you I have no duty to either repay or to make restitution because I have not created a risk that might reduce your capacity to make changes in the world. In other words, I have not engaged in an undertaking that might serve to diminish your will.

Now we must say what these duties are, for law must make the duties that it enforces explicit. If it is to act to dim the prospects of a defendant by assessing a

understood, though it has recently attracted considerable scientific attention. In some, sociopaths or psychopaths, it does not emerge at all, perhaps because the underlying biological apparatus is missing. At best, moral development seems to occur in emergent stages throughout the individual's lifetime, moving from an early stage of adherence out of a fear of the consequences of a violation to adherence to one's own self-developed sense of right and wrong that characterizes some adults. See LAWRENCE KOHLBERG & JEROME KAGAN, *THE MEANING AND MEASUREMENT OF MORAL DEVELOPMENT* (1981) and JEROME KAGAN & SHARON LAMB, *THE EMERGENCE OF MORALITY IN YOUNG CHILDREN* (1990).

⁵⁷ Even the dreaded Caligula treated his grandmother Antonia with respect. See ANTHONY A. BARRETT, *CALIGULA: THE CORRUPTION OF POWER* (1990).

⁵⁸ The key was the award of presumed damages, for it eliminated the requirement that the plaintiff prove a concrete loss. Instead the jury could infer an injury to the plaintiff's dignity from the facts described. Non-contact torts such as assault, false imprisonment, malicious prosecution, outrageous conduct, defamation, and invasion of privacy became plausible causes of action with the allowance of presumed damages. See Jonathan Kahn, *Bringing Dignity Back to Light: Publicity Rights and the Eclipse of the Tort of Appropriation of Identity*, 17 CARDOZO ARTS & ENT. L.J. 213 (1999), for an illustration of the kind of argument that causes this expansion in the law.

fine, damages or special remedy, it must explain the basis for that action. The shape of human duties is implicit in the idea of formal equality: As you demand respect (that is, to be treated as a subject and not simply as an object) you must accord respect, for you have no basis for treating your will as superior to the will of others. In addition to the dumb constraints imposed by nature and the willed actions imposed by others,⁵⁹ duties constrain both the purposes that the person may pursue (harming others is unacceptable) and the means that she may use to achieve ends that don't dim the prospects of others (stealing the money to pay law school tuition is likewise unacceptable). The primary duty is foresight: As she formulates her plans, she must consider not only the effect of her actions upon herself but also upon others.⁶⁰ Having identified some who may be affected, it is then her duty to gain their willing acquiescence or, if the costs of gaining that acquiescence are prohibitive, she must act with due care for their well-being⁶¹. We offer the following three principles as an approximation of the duties implicit in the human condition.

First, the will of each person is entitled to respect.⁶² This principle, from which the next two derive, identifies the will⁶³ of each person as what makes him or her equal in the context of a biology-based jurisprudence despite enormous variations in individual capacities for transforming the world. This means that

[r]elativistic comparisons of the will of one against another are irrelevant. It is not that comparison is impossible. We surely could — and in our private lives we surely do — compare and weigh wills. Some appear stronger than others, more effective at delivering for themselves that which they desire. Some

⁵⁹ When it was that duties emerged as a socially significant phenomenon is lost in pre-history. The word root "yewo," which forms the basis for words like justice, judge, juror and perjure, was present in the Indo-European language that was the precursor of Greek and Latin. It meant "to accord that which is properly due." THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (1979).

⁶⁰ In Learned Hand's famous explanation of due care, one who acts must employ that level of loss avoidance that has a lower cost than the expected losses it will avoid. *United States v. Carroll Towing*, 159 F.2d 169 (2d Cir. 1947). But that duty presupposes the more basic duty to apply foresight to one's actions to identify the risks. That duty underlies both willing acquiescence, where it informs the actor of the identity of those whose acquiescence will be required, and due care, which enables the actor to employ proper loss avoidance.

⁶¹ According to the Coase Theorem, where transaction costs are too high to permit willing interaction between the actor and those who may be affected, perhaps because there is no way of knowing in advance the identity of those who will be affected, the interaction must be governed by a regime of rules in which the law establishes the consequences of an action in violation of due care. see Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960)

⁶² See Hugh Gibbons, *Justifying Law: A Theory of the Deep Structure of American Law*, 3 LAW & PHIL. 180 (1984).

⁶³ As we have repeatedly emphasized will is not a vague philosophical abstraction. Instead, the will is a concrete biological phenomenon produced by the mind and it is manifested each time a person acts on her desire by making some change in the ontological landscape.

appear more purposive, less given to aimless meandering. And some are more sophisticated, pursuing complex, powerful plans that act over long periods of time and upon many people.⁶⁴

The principle of respect holds that these considerations are irrelevant. Instead, what is relevant is that each person must respect the autonomy of every other person and avoid "[o]verwhelming of the *will* of one by another."⁶⁵ The universality of this principle derives from the universality of the biological imperative across the species, the implicit drive to bring about willed changes in the world that is the signal feature of human life.⁶⁶ To paraphrase Rousseau, "I am, therefore I act."

The principle of respect underlies the second principle, the principle of cooperation: "Each person must gain the willing acquiescence of those who will be affected by his actions."⁶⁷ Willing acquiescence or consent is an absolutely pervasive feature of American law that ties together entire areas of seemingly unrelated branches of jurisprudence.⁶⁸ But how does consent provide such a powerful mechanism for securing control over the will of another person while simultaneously respecting that person's autonomy?

If I want you to help me with a project I am doing, I must get you to agree to do it. I may offer you my friendship, or my help on a future project that you want to undertake, or compensation. (I may not offer not to hit you if you help me, for that places you under a compulsion; the requirement of *willing* acquiescence means that, whatever the pressures and compulsions a person is acting under, they may not be supplied by the person who would gain his acquiescence.) If what I offer suits your purposes, you may agree to it. We will probably dicker with each other to arrange a pattern of interaction that suits us both. But if what I hold out does not suit your purposes, you may refuse to help. Your decision is final. I may not appeal your decision to a higher authority, say on the theory that my plan puts your efforts to a better use than your plans do, so you should be compelled to help me. You have, in general, *final authority* over the plans you will participate in.⁶⁹

So long as I accept your decision as final and do not undertake to overwhelm your will, I have satisfied the obligations that I owe you under the first and second principles of TBJ. If I cannot secure your consent I must find some other person who is willing to provide assistance.

⁶⁴ Gibbons, *supra* note 62, at 178.

⁶⁵ Gibbons, *supra* note 62, at 169.

⁶⁶ A human who is not presently able to make willed changes in the world—perhaps because he is addled by drugs, or unconscious, or brain dead—is not in fact a subject, but rather an object, dependent upon the care of others.

⁶⁷ Gibbons, *supra* note 62, at 181.

⁶⁸ "Consent," "assumption of the risk," "acceptance," "ratification" all name the same phenomenon: In one way or another something has occurred that the person affected objects to, but which she, in some way, brought upon herself by willing acquiescence.

⁶⁹ Gibbons, *supra* note 62, at 184-185 (emphasis in the original).

Imagine that you consent to become my agent⁷⁰ for the purpose of buying a new home because I have offered you a generous finder's fee. By doing so I have acknowledged your existence as a subject and, within the scope of our agency agreement, you have voluntarily agreed to act under my control. This is precisely the kind of garden-variety relationship that allows me to legally control your actions while simultaneously satisfying the first two principles of TBJ.

Consent provides a potent mechanism for managing responsibility for harm. For example, if we are both football players or boxers and we agree to compete within the context of these sporting events, we can actively undertake to intentionally harm one another in a way that would constitute very serious crimes and torts if done without consent. Within the context of our willing acquiescence we can agree *ex ante* to assume the risk for any injuries we may suffer as a result of the another player's actions, if they are incurred within the bounds of the agreement. The difference between a legally sanctioned blow to the head and a felony assault will turn on whether I hit you in the ring during the bout or out in the parking lot after the bout. Consent makes all the difference. But does that mean that, without consent, the requirement of respect for the will

[b]ars any action which imposes any risk upon others? If that were the case, the first principle would bar all actions of any scope, for they always create some risk of harming others. Quite frequently, as in the case of driving a car, we have no idea who might be affected and hence, no ability to gain their acquiescence.⁷¹

So what is the solution to this problem, i.e., how can we respect the will of another when it is not possible to secure their cooperation?

The most obvious solution — banning all risky action — does not comport with the [first principle]. The [first principle] requires a respect for the will of another. One who drives carefully and keeps his car well maintained is demonstrating a respect for others That he is confronted by circumstances that he cannot respond to does not indicate a failure of the respect due others. The [first principle] does not bar misfortunes. It is not geared to protecting the well being of others. It is geared toward protecting people from the *willed* misfortunes of others.⁷²

Each person

[h]as a duty to anticipate his actions and their effect upon others, and to gain their acquiescence when they will be affected. But if he is unable to determine whether or not anyone will be affected, and if someone is, who that will be, he satisfies the duty by acting with respect for their safety.⁷³

Acting with respect for the will of another means gaining her consent when, *ex*

⁷⁰ An agency relationship is a consensual fiduciary relationship where one person agrees to act on behalf of and subject to the control of another player — called the principal.

⁷¹ Gibbons, *supra* note 62, at 199.

⁷² Gibbons, *supra* note 62, at 199 (emphasis in original).

⁷³ Gibbons, *supra* note 62, at 200.

ante, we know she will be affected by our undertaking. But if we are unable to identify who may be affected by our actions or are unable to deal with that person for other reasons beyond our control, we must act with respect for her safety. The duty established by the third principle is the duty of care.⁷⁴

These duties are not conventional. They do not exist because we somehow adopt them. But the statement of these duties in law *is* conventional, as are the words of the statements themselves. The duties that those words refer to arise from the facts of human biology. The Boeing 747 pilot who extends the flaps on her craft prior to takeoff does not do so because of a Federal Aviation Administration regulation covering flap deployment but because failing to do so would make her takeoff reducibly dangerous. The written regulation may or may not make the world a safer place; it may not add anything to the efficacy of the pilot's implicit sense of duty. But the regulation is nonetheless important, for it is part of the due care requirements that are applicable to the *state* as it enforces duties, limiting and directing the state's own undertakings and providing warnings of its actions. The regulation is indeed a loss avoidance measure, but it is not so much about controlling pilots as about controlling those who will act upon the pilot in case of a breach of duty.

The duty that the pilot is responding to when she checks her craft prior to takeoff is an invariant—trans-cultural, trans-temporal. The FAA rules that cover her actions are conventional, dependent upon culture and time. Should the rules of law vary from the biological imperative so that, for example, pilots need not check their craft if they fly for Friendly Skies Airlines, TBJ would predict that that exception will be under stress *ab initio* and will not long endure.

6. DUTIES CAUSE RIGHTS

"Rights are not abstractions but exist only correlatively with duties."⁷⁵

Rights emerge from the breach of duties. The person who strikes another with a stick has breached the duty of due care, unless that person had first breached the duty of due care owed him by, for example, threatening to stab him with a knife. The initial breach of duty creates a right in the person threatened. The right created relaxes the duty of care and the duty to gain willing acquiescence. Where the right is created, it empowers the one in whom it lies to use coercion to redress the violation. One person, by threatening a physical trespass upon the person or property of another, breaches the duty of care toward that person, generating in her a right. This right is no abstraction. It is the right to use coercion to redress the actor's breach of a duty. Under the biological view, rights emerge from the breach

⁷⁴ From the standpoint of TBJ the stubborn refusal of Torts and Contracts to move from the first semester of the law school curriculum is completely understandable, both because the implicit human duties that they map are alive within the students themselves, hence immediately understandable, and because they are the deep duties that are spooled out in later subjects as, for example, the duties of specific players such as corporate directors, social security administrators, and parents.

⁷⁵ *Johnson v. Jamaica Hospital*, 467 N.E.2d 502, 503 (N.Y. 1984).

of duties and exist only to the extent necessary to redress the breach of duty. The right thus created provides the conceptual framework upon which a rights-enforcement apparatus can be based.

It is useful to think of a breach of duty as creating sovereignty—the right to use coercion—in the victim. The “right” that is created by the breach is nothing more than the right to use coercion to redress the wrong. Those who have the right to use coercion are, to that extent, “sovereign.”⁷⁶ We find it useful to think of the breach of a duty as creating sovereignty in the victim that allows a use of coercion to an extent proportional to the wrong.⁷⁷ This, we propose is the primordial structure of justice in humans, and it is the deep structure underlying law. Legal rights are institutional implementations of this fundamental dynamic. It is important to realize that, in fact, the dynamic that we have argued stems from biology: Rights arise in response to breaches of duty; they are proportional to the magnitude of the violation; they justify the use of coercion.

Sovereignty is well illustrated by the institution of the bail-enforcement agent, the so-called “bounty hunter.”⁷⁸ The bounty hunter is an agent of the bail bondsman, receiving a fee to return the bailed person, the principal, who has jumped bail to custody. The bounty hunter exercises the sovereignty that arises in the bondsman when the principal violates his bail bond agreement, or when the bail bondsman fears that he might.⁷⁹ That agreement creates a duty in the principal to appear for trial.

When she enters the contract the principal is, of course, in a tough spot, her freedom enormously constrained. Yet the courts, consistent with the biological view expressed here, consider her agreement to be a willed undertaking to which duties attach.⁸⁰ Were the bondsman the source of the compulsions acting upon the principal, the undertaking would not be considered willing. But since the bondsman

⁷⁶ Historically, the right to use coercion — sovereignty, supremacy — was claimed by a king or other ruler. This was often a defensible scheme, for it centralized and stabilized the enforcement of the law, avoiding the worst of self-enforcement. But sovereignty in this sense was misleading, for it associated the right to use coercion with lofty social position rather than with the redress of injustice. Those with the power of coercion wasted no time bending it to their own purposes, submerging the legitimate use of coercion for redress of injustice in a sea of royal adventuring. We mean here to return sovereignty to its biological residence, in one who has been wronged and therefore may use coercion to set it right.

⁷⁷ Proportionality is ubiquitous in law — the penalty must fit the crime, loss avoidance must fit the magnitude of the risk avoided, the level of bail fitting the risk of flight. “Excessive bail shall not be required, nor excessive fines imposed. . . .” U. S. CONST. amend. VIII.

⁷⁸ See John A. Chamberlin, *Bounty Hunters: Can the Criminal Justice System Live Without Them?* 1998 U. ILL. L. REV. 1175.

⁷⁹ The right of the bondsman, directly or through his agents, to arrest a principal who is not a fugitive, who has violated no law requiring him to appear, but whose behavior threatens to do so in the sole judgment of the bondsman, was established in *Nicolls v. Ingersoll*, 7 Johns. 145 (N.Y. 1810).

⁸⁰ The bondsman’s power “results from the nature of the undertaking.” See *id.* at 145.

is not responsible for the situation that the principal finds himself in, the contract is willingly entered into and is binding. Behavior that creates a reasonable apprehension that the principal will fail to appear for trial is a willed action by the principal that creates a risk for the bondsman in violation of the principal's promise in the agreement and thereby generates a right in the bondsman to compel performance through the use of coercion. A "mantle of sovereignty" descends upon the bondsman that gives him and his agents the right to use coercion. To be sure, their actions must be proportional to the risk that the principal has created; they must act with due care. But the bondsman and bounty hunter may exercise their sovereignty without the same level of constraints imposed upon the state's exercise of sovereignty. If they act unreasonably, they breach their duty to the principal, but it is not likely that he is in any position to exercise the right that would emerge in him under those circumstances.⁸¹

The emergent view of human rights differs in an important way from the popular concept of rights. Under that view, humans "possess" rights twenty-four hours a day. They are constantly shrouded in innumerable rights—to vote, to physical integrity, to clean air, and so on—the violation of which triggers the operation of law. The rights define, in some sense, a terrain the invasion of which constitutes a breach. The universal duty—to avoid violating a right—follows from the logically prior existence of rights. This rights-based concept of law raises an inescapable problem, the various solutions to which over the years have created enormous mischief: Where do those rights come from? The consensus seems to be that they were endowed upon us by the Creator or some such transcendent source.⁸² Why would a Creator do such a thing? What are those rights, exactly? How are we to know what they are? Where do new rights come from? What is the relationship between human rights and policy decisions? Does the legislature have the right to abolish rights? Does the majority? Can a group have rights at all? And so on.

The biological view eliminates those questions: Duties are transitory phenomena brought into existence by undertakings. Rights are transitory phenomena brought into existence by the breach of duties and eliminated by the removal and redress of the breaches. "Rights" themselves entitle their holder to use coercion, if only in the formal setting of adjudication. This view explains a lot of what we know about rights. For example, we know that rights are proportional.⁸³ If you do me \$10,000

⁸¹ Chamberlin, *supra* note 81, at 1192, suggests that this weakness in the principal's remedy justifies regulating the bounty hunters. "This problem is exacerbated by the limited ability of those injured by bounty hunters to secure any type of relief through the judicial system." The need to close the feedback loop, to provide a way of vindicating all rights, is surely a real need from the perspective of TBJ.

⁸² This is, of course, another flavor of dualism. Bodies come from mom and dad, rights from the Creator.

⁸³ Those proportions change, of course, from time to time and place to place depending particularly upon the cultural history of the nation, its level of personal and national security; and its per capita wealth. The contextual nature of proportionality is illustrated in U. S. CONST. amend. V: "No persons shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the

of damage, I am entitled to \$10,000, not more. And I am not entitled to beat you or tear your ear off. Why this proportionality in rights? Why doesn't the one who has been violated, the "sovereign," get to wreak whatever kind of vengeance for the indignity?

The biological view has a simple explanation for the proportionality that is widespread in law. Rights depend for their existence upon the breach of a duty. When that breach has been redressed⁸⁴ the right no longer exists; it is liquidated. Redress beyond that point is itself a breach of duty. The result of this process is what appears to be proportionality: Coercion is applied proportional to the "wrong." But that is an artifact of the self-liquidating nature of rights. There is no metaphysical principle of proportionality, only the working out of coercion as it enforces rights.

The biological view also has far less trouble accounting for the emergence of new rights than the conventional view. Human rights emerge automatically from the breach of duties; whatever the breach, a correlative right springs into existence to redress it.⁸⁵ But does that not leave us with a problem accounting for the emergence of new duties? Not at all, for there are no new duties, not, at least, since the final design for the human brain was standardized: As you undertake an action you must act with respect for others.⁸⁶ That duty applies to any human actor at any time, to the postal worker backing up his truck, to the designer of a time travel machine, to those who evaluate new drug tests for the FDA, to all. Rights are simply whatever is needed to address a breach by any actor of the universal duty that applies to willed actors.

7. RIGHTS CAUSE LAW

With the decision to use law to enforce rights and the creation of a mechanism

land or naval forces, or in the Militia, when in actual service in time of War or public danger. . . ." The pressure of those conditions justifies a more summary procedure.

⁸⁴ What is required to redress a given wrong? That is a question for the jury. There is no objective calculus of vindication.

⁸⁵ In the words of Judge Kaye in *Johnson*:

Rights are not abstractions but exist only correlatively with duties. Everyone who has been damaged by an interruption in the expected tenor of his life does not have a cause of action. The law demands that the equation be balanced; that the damaged plaintiff be able to point the finger of responsibility at a defendant owing, not a general duty to society, but a specific duty to him.

467 N.E.2d at 503.

⁸⁶ That duty lies at the heart many normative systems, like the Golden Rule ("Treat others as you would have them treat you.") and Immanuel Kant's Categorical Imperative ("Act so that you could will that the maxim underlying your action would become universal."), as well as the more recent tenets of Li Hongzhi, the founder of Falun Gong, "You should always display compassion and kindness towards others and think of others before doing anything." LI HONGZHI, *On Buddha Law*, in ZHUAN FALUN (draft trans. ed. 2003), http://www.falundafa.org/book/eng/zfl_new_0.html.

such as a court that is expected to respond to those rights, rules of law emerge to enforce rights without any necessary prior expression of public desire.⁸⁷ Judges simply reveal them. Rights-based rules often have the quality of being discovered rather than invented.⁸⁸ It is this quality that accounts for diametrically opposing rules about the effect of changes in the law. Changes wrought by legislatures are generally subject to the *ex post facto* rule, changing the rules only prospectively because it would be unfair to hold people to a standard that was not disclosed when they undertook their action. Judicial changes in law, by contrast, apply to all actions, whether made prior to after the change in law, on the theory that the court simply discovered a rule that was implicitly present anyway, and it should have been obeyed.

CONCLUSION

Human rights do not emerge as a result of constitutional amendments and legislative enactments, or what the courts or God say they are. Rather, they emerge as a result of things we do. What we do are actions produced by the mind. The conscious state that causes actions — the experience of acting or the experience of causation — is called the will. Conscious states go on inside our heads, caused by processes in the brain. Conscious states are biological phenomena. Since the will itself is a conscious state, it too is part of our human biology. Our will is the source of our undertakings. Undertakings are biological processes that emerge as the human mind reshapes the world to satisfy desires it is experiencing.

However, these biological processes cause risks, risks that may undermine someone else's will or diminish his freedom. But to survive, humans must act anyway. As they do so they have a duty to gain the willing acquiescence of those who will be affected by their actions or, if it is not possible to do that, to act with due care. Failure to conform to that duty creates rights in those who are thereby put at risk. The person who creates rights in others acts outside of the justified realm of human freedom. Within the set of that person's anticipated actions—that is, within that person's experience of freedom — lie actions which create human rights and are therefore not justified biologically. They are actions that, if undertaken, will

⁸⁷ For instance, the public may have been ready to tolerate the decision in *Brown v. Board of Education*, 349 U.S. 294 (1955), but that decision was surely was not caused by any upwelling of public demand. It was simply the force of rights themselves, in this case acting in the form of the principle of formal equality, that drove the decision.

⁸⁸ It is this quality that has generated the sense that there is something "natural" about human rights, and indeed TBJ would argue that there is: They emerge without any conscious act or desire in response to violations of duty. The various natural law theories, by stark contrast, treat those rights almost as things, incorporeal entities actually possessed ("endowed") by people, which, when violated, create a cause of action. Rights in a natural law theory are metaphysical entities that lack ontological grounding and are hence prone to endless debates about where they come from, whether they include a right to a job or a meal, and on and on. TBJ, by contrast, grounds rights in biology, the biology of human consciousness. In TBJ, rights are *physical* — specific mental states — not metaphysical.

diminish the will of another human. This is the biological basis of a legal "wrong."

Therefore, law that emerges to enforce human rights arises according to the seven casual steps we have outlined. This strategy grounds the causal analysis of TBJ in the human brain, identifying the biological basis of law and eliminating dualism from theoretical jurisprudence. Biological jurisprudence affirms the actual practice of law in the courtroom because law never bought into this dualism, at least not when it comes to the ontology of mental states. Indeed, TBJ takes this analysis one step further by eliminating metaphysics from its account of how human rights emerge as features of our world, since the creation of rights in this theory depends on human biology rather than the Creator or actions by the state.

Biology-based law offers several advantages. First, there is no need to generate new rights or rules beforehand, for they emerge out of the facts of an interaction itself: What did the actor undertake to do? What risks were created? What did the actor do about them? Was that enough? Whether the defendant was driving a carriage or an intergalactic starsurfer, the analysis is invariant.⁸⁹

The second strength if TBJ in the information age is that biology-based risks are species-wide. If the plaintiff, an American, was injured by the actions of a Sri Lankan, acting from Iceland via the Internet, the location and citizenship of the parties is, in principle, irrelevant to a resolution of the question. From a biological perspective, the governments of Sri Lanka, the United States, and Iceland are transitory features of history. The humans within their boundaries are no less entitled to respect than any others, nor are they free of its duties. A government that erects barriers to the enforcement of rights is simply part of a scheme of injustice. We are not surprised by that, nor do we accord it respect.

Third, the enforcement of biology-based rights is highly decentralized. Bringing an action doesn't depend upon the decisions of a policy maker, who must take into account the national interest before acting. If the plaintiff thinks she was wronged, she simply brings actions and attempts to make her case. The effort to make the case applies the invariant principle to the current factual context.

Fourth, biology-based law is formative; it shapes and develops the individual's sense of responsibility, leading to responsible behavior in the future.⁹⁰ Positive law,

⁸⁹ *Trimarco v. Klein*, 436 N.E.2d 502 (N.Y. 1982), provides an illustration of the invariance of biology-based principles. The plaintiff was injured when he fell through a shower enclosure that was made of common glass. The apartment, and its shower enclosure, were constructed at a time when glass shower enclosures were the state of the art. In the decades that followed construction, however, common glass was replaced by safer materials—materials which would not have allowed the plaintiff's injury—and landlords generally followed a practice of replacing their common glass enclosures with the newer, safer ones. The defendant had not done so, arguing that there was no avoidable risk in the enclosures when he purchased the building, so he was not negligent. The court disagreed, holding that the duty to act with due care is always at work—an "invariant"—and when safer materials were available at reasonable cost it was his duty to replace the more risky enclosure.

⁹⁰ This formative capability of law is what Richard L. Barnes describes as a property of the Uniform Commercial Code. "The term 'Formative' was chosen because a formative rule

with its narrow rules, tends to generate narrow compliance. Does the law requiring that databases containing personally identified data be registered with a Federal agency apply to lists of names kept in a word processor? There is no confusion in that situation about the biological responsibilities—what risks do the data create? How can those risks be avoided?—and dainty questions about whether the word “database” refers to a software database program or to any compilation of personally identified information are simply irrelevant.

There are, of course, weaknesses in the enforcement of rights, but knowing the source of human rights and their utility in the information age allows us to generate policies that remove the weaknesses. One is the reluctance of courts to act in novel situations. They tend to retreat behind existing rules, treating them not as the analytical swords of the trade but rather as shields from exposing one’s mistakes to a higher court. This impulse weakens enormously the invariant nature of the principles, which apply to every situation and provide a uniform way of analyzing it.

Perhaps the problem here lies, to some extent, in the uncertain provenance of rights themselves. It is one thing to talk about rights being “endowed by the Creator,” but in a secular age this sounds more than a little suspect and more than a little unclear. Getting serious enough about rights to back them with coercion requires the judge to be secure in her sense of what she is doing. A well-developed biological theory of human rights should provide enormous strength to those who must deliver on those rights.

can be seen as forming the value, as well as the value forming the rule. The value is adopted and embodied in the provision of the law. Because of the direct embodiment there is no weakening of the value through its translation into law.” Richard L. Barnes, *Toward a Normative Framework for the Uniform Commercial Code*, 62 TEMP. L. REV. 117, 121 (1989). Law that arises out of human behavior, like the UCC, embodies the values of those who are participating in the behavior and, reciprocally, shapes the behavior of those who would participate in it. Law that arises out of wrongs is immediately understandable; it illuminates and shapes behavior. Law that arises out of a desire for the way the world should be does not have this quality, as the formative failures of the copyright laws demonstrate. Laws that lack the formative quality require enforcement by professionals.

