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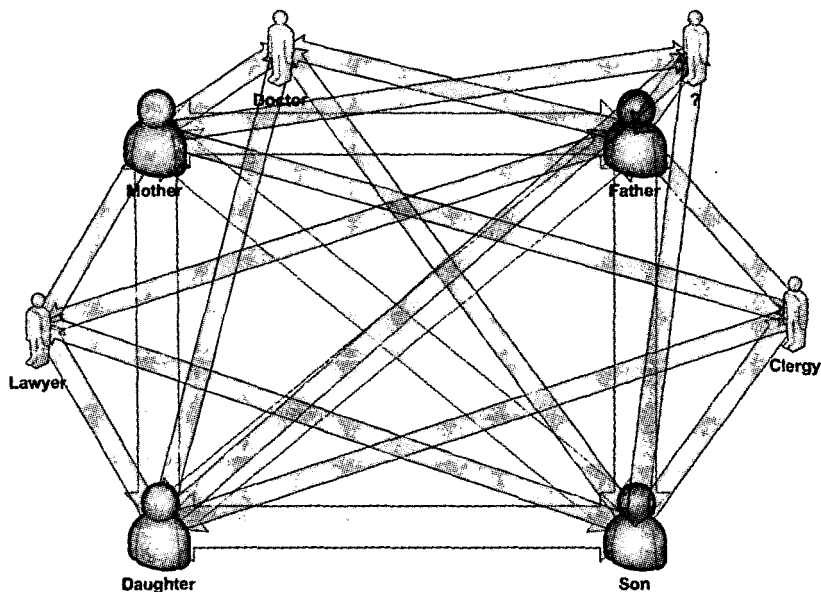
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ON THE NATURE OF THE ACTION-OMISSION NETWORK

Theodore Y. Blumoff*



INTRODUCTION: THE OMISSION LIABILITY NETWORK**

I am solicited for help almost daily by strangers genuinely in need of assistance or, more frequently, by associations acting on their behalf. From supermarket entrances where good people espouse a

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** In this "network" each "node" (or actor) is directly and reciprocally connected with one another. Although typically one or both parents would serve as a "connector" to the non-family service providers, it routinely happens that each child also has a direct connection to the outside providers. *See generally* ROBERT A. HANNEMAN & MARK RIDDLE, INTRODUCTION TO SOCIAL NETWORK METHODS (2005), available at <http://www.faculty.ucr.edu/~hanneman/nettext/>.

rich array of laudable causes to Red Cross email alerts describing the need for famine or flood or (ubiquitously) disaster relief; to Doctors Without Borders and Oxfam; to heart, kidney and diabetes foundations, cancer societies, and children's illnesses of every imaginable variety; to the disabled, the homeless, the abused and neglected and more. Each solicitation triggers a brief, emotionally-charged sensitivity to a familiar narrative of individuals in need, and invariably they produce a sensation now well-wired in my consciousness when so alerted. I know that many of these individuals suffer significant deficits simply because of bad luck—antecedent, constitutive and testing, economic, social, moral or otherwise.¹ Yet I mostly ignore these solicitations or quickly delete them or never answer them (dispatched with telephonic dispassion), or I drop them unopened into the trash with only that microsecond neural reaction that causes hesitation. Why is that? Well for one, I can say that I have only so much money and can't possibly contribute to every deserving organization. True, but that explanation feels insufficient. I go to the market or wine store and purchase a nice but unnecessary bottle of Sauvignon Blanc or a Merlot and do so for my own pleasure. Surely then, I ought to contribute something to each (or at least more) of these worthwhile causes. Usually though, I do not. I allocate my giving and I sleep well. Why such comfort?

*

David Hume was a careful observer of human behavior and he left hints to my question's answer. His observations led to a view of moral psychology that was underwritten necessarily (and, for him, sufficiently) by our human natures: “[W]hat exists in the nature of things is the standard of our judgment; what each man feels within himself is the standard of sentiment.”² What each person finds “within,” he concluded, is *self interest* and *self love*, and he regarded

1. See THOMAS NAGEL, *Moral Luck*, in MORTAL QUESTIONS 24 (Cambridge 1979) (describing different forms of moral luck).

2. See DAVID HUME, ENQUIRIES CONCERNING THE PRINCIPLES OF MORALS 171 (L. A. Selby-Bigge & P. H. Nidditch, eds., Oxford: Clarendon Press 3rd ed. 1975) (1777) [hereinafter HUME, PRINCIPLES OF MORALS].

these qualities as inhabiting the core of human morality.³ Within the “nature of things” is a powerful tendency to rescue our child or spouse or sibling or loved one far more readily than to come to the aid of a neighbor or a person unknown.⁴ Yet we do provide substantial assistance to our friends, especially those we love, to those who demonstrably lack sufficient capacity, and sometimes we even provide aid to strangers in need whom we have a unique ability to assist but with whom we never have, and likely never will have any contact.⁵ And, as we know from common experience, we are more likely to stop and give aid to an injured person within our immediate reach than we are to heed yet another call to help the injured and destitute in a far away land, although their need for assistance may be exactly the same as the needs of those proximate to us.

Hume acknowledged that although we are driven mostly by our own interests, we are not indifferent to the suffering of our fellow beings, even those with whom we have no connection. Our sympathies with humanity are substantial, and they are evinced in ways that are consistent with, although not fully driven by, conduct evolutionary biologists associate with “kinship selection,” that is, the likelihood of individual members of any species to cooperate with their biologically close kin to advance inclusive fitness,⁶ and “reciprocal altruism,” cooperative sharing among non-related individuals in a group.⁷ Hume concluded that our feelings of

3. See DAVID HUME, A TREATISE ON HUMAN NATURE 488 (L. A. Selby-Bigge & P. H. Nidditch, eds., Oxford: Clarendon Press 2nd ed. 1978) [hereinafter HUME, TREATISE]; see also David Hume, *Of the Dignity or Meanness of Human Nature*, in SELECTED ESSAYS 43, 43–44 (Stephen Copley & Andrew Edgar eds., Oxford 1993).

4. See HUME, TREATISE, *supra* note 3, at 481.

5. Adam Smith began his treatise on morality with the famous statement, “[h]ow selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in . . . others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it.” ADAM SMITH, THE THEORY OF MORAL SENTIMENTS 3 (Prometheus Books 2000) (1759). Smith used the term “sympathy . . . to denote our fellow-feeling with any passion whatever.” *Id.* at 5.

6. See, e.g., John Maynard Smith, *Group Selection and Kin Selection*, 21 NATURE 1145, 1145 (1964); Francis Steen, *Natural Selection: Exposition, Examples, Discussion* (1998), <http://cogweb.ucla.edu/ep/Selection.html>.

7. William D. Hamilton, *The Evolution of Altruistic Behavior*, 12 AM. NATURALIST 354 (1963). See generally FRANS DE WAAL, GOOD NATURED: THE ORIGINS OF RIGHT AND WRONG IN HUMANS AND

obligation radiate in a network-like fashion outward from ourselves, first to our immediate progeny and mate, our closest genetic relatives, and then to more distant family and relations. The valence of the emotional, moral, and legal connections tend to diminish as kinship and status become more remote.⁸ Hume came to a well-reasoned, pre-Darwinian observation of evolutionary psychology. And he went further because he was also sensitive to a less biologically-driven and more traditional form of altruism: “What is [sic] honourable, what is fair, . . . what is noble, what is generous, takes possession of the heart, and animates us to embrace and maintain it.”⁹ And so, he argued, we are moved by what is within us, by what is useful to us and to others, and by the needs of those who are important to us. “Usefulness” thus embraces our moral sentiments and our moral psychology.

Hume understood that we are, in fact, animals, subject (at least initially) to the tendencies that move other animals. Like most other animals, our natural preferences, from a moral perspective, begin with those closest to us, although we do harbor deep feelings about the welfare of other, less closely related and unrelated individuals. From an evolutionary point of view, we have come to recognize that many actions that we could label “duties” include a substantial amount of conduct that, to us individually, is measured as a disutility, i.e., an apparent present loss of personal fitness that is not clearly recoverable somewhere down the road.¹⁰ And we often fail to

OTHER ANIMALS 12, 24–27 (1996); Jim Moore, *The Evolution of Reciprocal Sharing*, 5 *ETHOLOGY & SOCIOBIOLOGY* 5 (1984), available at <http://weber.ucsd.edu/~jmoore/publications/Recip.html>.

8. Noting that any behavior that advances genetic fitness is evolutionarily advantageous, J.B.S. Haldane famously quipped, “I would lay down my life for two brothers or eight cousins.” Gaden S. Robinson, *Society Insects*, *TIMES ONLINE*, July 25, 2007 (Book Review), http://entertainment.timesonline.co.uk/tol/arts_and_entertainment/the_tls/tls_selections/natural_history/article2306055.ece.

9. HUME, *PRINCIPLES OF MORALS*, *supra* note 2, at 172.

10. See, e.g., Andy Gardner & Stuart A. West, *Cooperation and Punishment, Especially in Humans*, 164 *AM. NATURALIST* 753 (2004), available at http://westgroup.biology.ed.ac.uk/pdf/Gardner&West_AmNat04.pdf.

live up to our obligations and are probably doomed to fail at times in the future. Why that might be is the subject of this work.¹¹

This work explores the foundations of a deeply felt intuition that pervades American jurisprudence: the act-omission distinction (“AvO”). I conclude that Hume’s understanding of the origins of our conception of duties presaged an important insight from modern evolutionary theory:¹² our tendency to engage in altruistic conduct begins, although it clearly does not end, with the physical reality of personal kinship in an unkind world, and it tends to extend out in a social network of ever-diminishing strength the farther we move from the nuclear family.¹³ The thesis begins with the observation that we privilege “acts” over “omissions” for purposes of accountability, because the “psychological constituents of human . . . nature, like the anatomical and physiological elements thereof, exhibit adaptive design for the solution of particular recurrent problems faced by our ancestors.”¹⁴ Given the fact that we are still freighted with a million year old genotype, we should not be surprised that we continue to find it easier to help individuals close to us than perfect strangers and, in either case, especially easier to give aid if the individual is close at hand. Accountability for omissions tends to arise as a function of

11. For the purposes of this work *only*, I am assuming that we can characterize acts versus omissions non-controversially. Of course, very often these distinctions cannot be made in a non-controversial way and then it is fair to ask what *other* factors are motivating a court’s decision. I do not think that fact undermines my concerns, which are with the norm itself, not how well or poorly it is implemented.

12. In fact, Darwin described Hume as a “central influence” in his thinking. William Edward Morris, *David Hume*, THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Fall 2008), <http://plato.stanford.edu/archives/fall2008/entries/hume/>. In a section titled “Man as a Social Animal,” Darwin expressly mentions Hume’s *Principles of Morals* for the proposition that man has retained the ape-like instinct of his progenitors to have “love and sympathy for his fellows.” CHARLES DARWIN, THE DESCENT OF MAN, AND SELECTION IN RELATION TO SEX, 132 n. 23 (Penguin ed. 2004).

13. Aristotle seemed to have something of this idea in mind in Book VIII of the *Nicomachean Ethics*, when he described the natural friendships that develop between parents and children across species. ARISTOTLE, NICOMACHEAN ETHICS 209 (Christopher Rowe trans., Oxford 2002). *See generally* Dascher Keltner & Jonathan Haidt, *Social Functions of Emotions*, in EMOTIONS: CURRENT ISSUES AND FUTURE DIRECTIONS 192 (Tracy J. Mayne & George A. Bonnano eds., Guilford Press 2001), available at <http://people.virginia.edu/~jdh6n/> (noting the problem-solving social functions served by the emotions, and synthesizing evolutionary and social constructivist theories of emotion).

14. Margo Wilson, Martin Daly & Nicholas Pound, *An Evolutionary Psychological Perspective on the Modulation of Competitive Confrontation and Risk-Taking*, 5 HORMONES, BRAIN, & BEHAV. 381, 381 (2002).

relationally proximate networks, and among the salient variables that determine the expectations within these networks are, in the first instance at least, kinship and the power-knowledge imbalances that often exist among individuals in trusting and entrusting relationships.¹⁵ Thus our parents and siblings and our lawyers and doctors and priests have duties to aid that even our best friends do not have.¹⁶ I argue that these variables and, in particular, our largely ineradicable biological commitment to those who are in close familial relationships, are grounded initially in our genetic ties and thus favor our individual natural histories. Overcoming the traditional reluctance to impose duties to act on behalf of third parties will require some remodeling of our social norms.

I hope to demonstrate these points in several steps. Part I removes some of the underbrush with a brief vignette that sets the distinction between acts and omissions as sources of duty and accountability in a plausible hypothetical setting. The purpose of this section is simply to dissect the apparent moral obtuseness of AvO in terms of legal “causation.” It concludes, as many others have, that omissions that produce non-trivial harms can be as fully responsibility-engendering as are dynamic acts that cause harm. Thus, to label the conduct in question a “mere omission” is to make a judgment about the culpability of the individual; it is not a statement about material causation. This is not a matter of ambiguity in the term “causation”; rather, it speaks to our intuitions about the propriety of accountability for failing to render aid.

Part II puts the issue of liability based on duties in its contemporary perspective. It thus begins with a summary of the *legal* concept of “duty,” the existence of which is a necessary condition for

15. This finding is also well supported among primatologists. See, e.g., DE WAAL, *supra* note 7, at ch. 2; Joan B. Silk, et al., *Chimpanzees are Indifferent to the Welfare of Unrelated Group Members*, 437 NATURE 1357 (2005).

16. This might also explain why adoptive parents, males in particular, are more likely to harm their stepchildren than are biological parents. See, e.g., Martin Daly & Margo Wilson, *An Evolutionary Perspective on Homicide*, in HOMICIDE STUDIES: A SOURCEBOOK OF SOCIAL RESEARCH 58, 64 (D. Smith & M. Zahn eds., Sage Publications 1999) (“Evolutionary thinking led to the discovery of the most important risk factor for child homicide—the presence of a *steparent*.”); Owen D. Jones, *Evolutionary Analysis in Law: An Introduction and Application to Child Abuse*, 75 N.C. L. REV. 1117 (1997).

omission liability.¹⁷ The recognition of a legal duty begins (and ends) with an assessment of status relationships, which are defined by contexts where, as a matter of long term survival, there are and always have been situations in which power, trust, and knowledge imbalances exist. In particular, recognition of a duty occurs where there is a first-order (or other close) kinship relationship (i.e., spouses, parent-child, child-child, and sometimes child-parent) that requires the superior party to aid the weaker party to assure survival.¹⁸ Part II then outlines several of the principal assumptions of evolutionary theory, and some basic behavioral genetic and neuroscientific data on the anatomy of moral decision-making, and ends with a discussion of selection, the creation of memory, and the satisfaction of pre-existing duties. What I suggest is that over the vast expanse of human history, the imposition of a duty has its roots in a genotype that extends back to the Pleistocene era and our subsequent neurobiological development—in short, its foundation lies in a family social network. As family relationships have become more attenuated over time, duties have been imposed on other trusted surrogates.

There are many conditions that circumscribe our behavior, a point made in Part III, which ties these neurobiological findings to the naturalistic moral psychology of Hume, whose insights support our tendency to impose responsibility based on certain omissions that cause harm.¹⁹ Part III draws together the several strands into a naturalistic account of the intuition that produces AvO and ties those intuitions to the social network that helps to account for AvO. Part IV

17. I will use examples from general criminal and tort law throughout this work, but the legal analysis works as well (albeit in different substantive and remedial ways) with issues that arise in Bioethics and Medical Ethics. *See, e.g.*, *Cruzan ex rel. Cruzan v. Dir., Mo. Dep't of Pub. Health*, 497 U.S. 261, 296–97 (1990) (discussing the AvO distinction); *Barber v. Super. Ct.*, 147 Cal. App. 3d 1006, 1016 (1983); *In re Quinlan*, 355 A.2d 647, 670, *cert. denied*, 429 U.S. 922 (1976).

18. European countries tend to have a somewhat different tradition; they generally impose a statutory duty to rescue if it can be effectuated without great risk to the rescuer and without compromising other existing duties. *See, e.g.*, *Strafgesetzbuch [StGB] [Penal Code]* Nov. 13, 1998, § 323c, *available at* <http://www.iuscomp.org/gla/statutes/StGB.htm#323c>. Perhaps this is a historical legacy of greater homogeneity.

19. I deal here with negligent omissions, which are generally inadvertently produced. *See, e.g.*, MODEL PENAL CODE § 2.02(d); RESTATEMENT (THIRD) OF TORTS § 3 cmt. c (defining negligent omissions).

highlights the Humean framework, puts it into a social network analysis, and offers some observations about the future of AvO and the possibility of remodeling our public norms so that a duty to rescue when we can do so without unreasonable effort becomes an implied term in the social contract because everyone's children are entitled to civil treatment and respect.

I. A GROUNDING HYPOTHETICAL FOR AVO²⁰

Charlie is a veteran railroad switchman. One evening he's sitting on a well worn gray sofa in one of the railroad's many small, rundown yard shacks anticipating an important football game and a visit from an old friend, Frank. The shack has a television sitting on a small corner table. Just moments before the game begins, Charlie turns to his buddy and nodding toward the large, well-marked switch to his right declares, "Frank, I gotta pull that A switch over there at 9:02. Now, don't let me forget to do it or the L&W's gonna crash straight into Amtrak's Boston Flyer." Frank glances at his watch, then the switch and nods affirmatively. The game starts at 8, and it's close and unbelievably exciting; it rivets their attention as the lead changes several times. At 9:04, the L&W Freight-line Express crashes head-on into Amtrak's Boston Flyer, just as Charlie had predicted, and just as Frank understood. Now people are dead and lives and businesses throughout the country are in disarray. Charlie failed to pull the A switch because both he and Frank forgot. Forgetting, a condition of negligent empty-headedness, begat a failure to act. Destruction followed. We expected better from Charlie.

But suppose we are living in a state in which all of one's sensibilities are consumed each day with staying alive. Social networks of human interactions extending beyond the nuclear community would have been unfathomable. In that setting, one's ability to conceive of moral dilemmas related to saving unknown and

20. The vignette that follows is adapted from Patricia Smith, *Legal Liability and Criminal Omissions*, 5 BUFF. CRIM. L. REV. 69, 101 (2001).

unrelated others are non-existent. Subsistence is incredibly difficult. Great cats and immense predatory mammals and lizards roam the earth. Distant ancestors would have been knee-deep in self- and kin-preservation: just feeding one's small community would demand the labor of every healthy adult (males hunting and females gathering and child-rearing, most of the time). Existence and reproduction require the immediate and continual cooperation of those in close contact with one another. Rescuing someone outside one's small group is not part of anyone's fare, and answering solicitations from charitable organizations acting on behalf of those in desperate need of financial assistance was inconceivable. Our present ability to engage in moral reasoning evolved from a genotype that was driven by a primitive neurobiological architecture that valued kinship and mutual back-scratching long before our co-evolved culture emerged.

Today, of course, we do not hesitate to find Charlie responsible both materially and proximately for the spectacular crash. His omission is culpable because his very livelihood—his role as one among many guardians of the community—entails the expectation, memorialized in his job description, that he remembers in a timely manner to begin the processing that produces the action of throwing the switch. We have entrusted to him the role of guardian of these rails. Experience, reflected in part in our neurobiological development, has taught us that the interposition of an individual capable of and tasked with preventing a harm, and presented with an opportunity to do so without sacrificing other duties, should activate that individual's duty to prevent the harm. Failure to do so then produces the inescapable impression that an unnecessary and unwelcome event has occurred and that it did not have to occur. This impression arises even if we do not know, and have no kinship or close relationship with the victims. Given the nature of Charlie's employment agreement and the expectations that accompany it, moreover, we would probably say that he was grossly neglectful. His omission to do so causes us to view him as *a* cause of the train wreck under any reasonable, common sense, role-governed description of Charlie's conduct.

The easy determination that Charlie's omission was a cause of the train wreck and is justly responsible therefore, introduces another apparent causal conclusion. If we concede that Charlie's failure of memory and the consequent failure to pull the switch was an omission that caused the wreck, then perhaps we should think about Frank's role in the tragedy too. For one thing, there is no obvious difference in either intention (or lack thereof) or material causation between Charlie's failure to remember and Frank's failure to remind. Put it in context: physically, they sit side by side on the sofa in the yard house. Both understand the implications of Charlie's warning, and both are located no more than a few feet from the switch. Their respective expectations of the potential consequences are the same as both are watching the football game when, at 9:04, the actually foreseen (in fact, predicted) train wreck occurs.²¹ In this context, their failures of memory seem indistinguishable from the perspective of causation. Thus, from the viewpoint of intentionality, both have full knowledge that the trains will crash and cause great harm if the A switch is not pulled in a timely manner. And, finally, both have ample opportunity and the ability to pull it, but both suffered a failure of memory and so both were at least inadvertent: Charlie for failing to pull the switch and Frank for failing to remember to remind his friend to pull the switch. On this view of causation, where causative powers are understood as including intentions (broadly defined) that trigger beliefs which then effectuate unwelcome outcomes, legal causation speaks loudly to the relationship between human inactions and accountability. Charlie as well as Frank are causative agents

21. There is another imaginable scenario—namely, that the train was behind schedule and Charlie (or Frank) remembered to throw the switch before the crash occurred. That is, one or the other threw the switch “in time,” but late (after 9:02) and without harm. If that possible scenario does not describe “moral luck,” I am at a loss to explain how moral luck might otherwise be described. On the question of moral luck, see Thomas Nagel, *Moral Luck*, in *MORTAL QUESTIONS* 24, 38 (Cambridge 1979) (originally published in 50 *PROC. ARIST. SOC'Y* (Supp. 1976)); Bernard Williams, *Moral Luck*, in *MORAL LUCK: PHILOSOPHICAL PAPERS 1973–1980* 24 (Cambridge 1981) (rejecting the Kantian hypothesis that good or bad will is “unconditioned” [or] . . . free from external contingency”); Bernard Williams, *Moral Luck: A Postscript*, in *MAKING SENSE OF HUMANITY AND OTHER PHILOSOPHICAL PAPERS 1982–1993*, 241, (Cambridge 1995).

unless inaction is, for some reason, less forgivable in one context than another.

In one obvious sense, there is greater reason to attribute failure and accountability to Charlie rather than to Frank: Charlie failed to satisfy a recognized, pre-existing legal *duty* to pull the switch. The idea of duty embraces a comprehensive moral and legal obligation to act in a timely fashion. In light of his position, its remuneration, the expectations that follow there from, and (ultimately) our sense of what is right, an employee like Charlie is *charged* in morality and law with remembering. Frank does not bear the burden that accompanies such entrustment.²² So, the existence of a duty makes a significant difference in our willingness to attribute fault, which follows from our expectations of their respective conduct. But differences in obligations, expectations, and attributions of fault do not make an obvious difference in terms of material causation; that is, role expectations aside, the reason why we infer that *B*, a train crash, invariably follows *A*, the fact that trains heading towards each from opposite directions on the same track at night will crash unless active measures are taken to prevent the collision.²³ If either Charlie or Frank had remembered the task in a timely fashion or had remembered “late” and jumped up at the very last second and pulled the switch, the wreck probably would not have happened. *In fact*, Charlie and Frank are each causally sufficient in these circumstances.²⁴ The existence of a duty, then, seems to speak to

22. Generally, he is not so charged, which is not to say that our understanding of “duty” is or should be static. It too evolves, although it does so slowly, within the root categories, and under much questioning. In at least one case, friendship seemed to be sufficient to trigger a duty. *See, e.g., Farwell v. Keaton*, 240 N.W.2d 217, 220–22 (Mich. 1976) (finding a “special relationship” sufficient to impose a duty to render aid based on a “social venture” that involved an evening out for two buddies sharing a few beers). On the questions this case has raised, see, for example, Melvin A. Eisenberg, *The Duty to Rescue in Contract Law*, 71 *FORDHAM L. REV.* 647, 651 (2002) (noting that “not all courts have accepted a social venture as a special relationship that qualifies as an exception to the general rule,” after discussing *Farwell v. Keaton*) (citation omitted). *Cf. Ronald M. v. White*, 169 Cal. Rptr. 370 (Cal. Ct. App. 1980) (holding that defendant passengers had no duty to intervene and were not liable for injuries suffered by co-passengers in a car accident after a night consuming drugs and alcohol).

23. *See* DAVID HUME, *ENQUIRIES CONCERNING HUMAN UNDERSTANDING*, § VII, pt. II–III (L. A. Selby-Bigge & P. H. Nidditch, eds., Oxford: Clarendon Press 3d ed. 1975).

24. Other contingencies could have arisen that would have prevented the crash, such as a cow straying onto the track or a mechanical failure of some sort.

another issue, and not (at least not only) to material causation, but to causal attributions based on inadvertence.

II. DUTIES AND THEIR EVOLUTION

Such “duties” as existed in the human evolutionary past were likely related to the need of all individuals to help themselves and their kin survive and reproduce. The ability to pass on one’s genetic material, his or her “fitness,” occupied virtually all of one’s resources.²⁵ As the products and creators of culture, we have come a long way from the origins of our genotypes. Our genotypes, however, are largely unchanged because changes due to natural selection occur over millions of years.²⁶ With that in mind, this section begins with the current status of duties as a trigger for omission liability in law, and then backtracks. This provides a basis for distinguishing between acts and omissions for purposes of establishing criminal and civil liability by discussing natural selection; the evolutionary and neuroanatomical bases of moral judgments; the impact of evolutionary theory on duty; and the impact of memory on the creation of and our ability to fulfill the obligations imposed by duties.

A. Established Anglo-American Legal Principles.

The simple failure to act, even in the circumstances in which a person of reasonable moral fiber would do so and could do so without

25. See Robert Boyd, *Evolution: The Puzzle of Human Sociality*, 314 *SCIENCE* 1555, 1555–56 (2006) (suggesting that “[l]anguage or culture may have led to the evolution of leveling mechanisms, which then potentiated the spread of prosocial genes because these mechanisms reduced the costs of cooperation.”). See also PAUL BLOOM, *DESCARTES’ BABY: HOW THE SCIENCE OF CHILD DEVELOPMENT EXPLAINS WHAT MAKES US HUMAN* 105 (2004) (“Successful genes will create vehicles [for reproduction] that are altruistic toward different kin in degrees that reflect the chance of the kin sharing genes.”); MICHAEL R. ROSE, *DARWIN’S SPECTRE: EVOLUTIONARY BIOLOGY IN THE MODERN WORLD* 70 (1998) (describing “fitness” as “net reproductive output”). Even our founding story in the West is Darwinian to the core; *Genesis* is consumed with issues related to reproductive success. See *Genesis*.

26. See, e.g., Daly & Wilson, *supra* note 16, at 60 (noting that “ancestral environments” are stressed because the psychology and morphology of every species are “historical artifacts, designed by natural selective process that required persistent relationships between cue and consequence through many generations.”); see Leda Cosmides & John Tooby, *Evolutionary Psychology: A Primer* (1997), available at <http://www.psych.ucsb.edu/research/cep/primer.html>.

compromising other duties, is generally insufficient to impose either punishment or compensatory liability. Under the traditional common law view of liability for failure to act, the actor must violate a legal duty. In *Jones v. United States*, for example, the court held that the failure to instruct the jury that the defendant in whose home the events occurred had a legal duty to provide food to an infant in her home.²⁷ The court described the four circumstances in which a duty and potential liability for failing to meet the duty generally arises.

One can be held criminally liable: first, where a statute imposes a duty to care for another; second, where one stands in a certain status relationship to another; third, where one has assumed a contractual duty to care for another; and fourth, where one has voluntarily assumed the care of another and so secluded the helpless person as to prevent others from rendering aid.²⁸

In each of these cases, either the legislature or common law judges have made a judgment that the individual upon whom the duty is imposed is in a relationship of kinship or trust under circumstances in which the beneficiary of the duty needs aid for his or her well-being. Of significance here are the second and third categories: the existence of a status relationship or a contractual duty.

In tort law, the rules are similar. In his classic treatise, Dean Prosser states that the “simple and obvious” distinction between *misfeasance* (acting wrongly) and *nonfeasance* (wrongly omitting) is made difficult because the latter requires finding “some definite relation between the parties, of such a character that social policy justifies the imposition of a duty to act.”²⁹ Consider the classic case of *Yania v. Bigan* where the defendant failed to come to the aid of a business acquaintance whom he (the defendant) had induced to jump

27. *Jones v. United States*, 308 F.2d 307, 311 (D.C. Cir. 1962).

28. *Id.* at 310 (footnotes omitted). Defendant had been convicted of involuntary manslaughter although the jury had never been told what duty, if any, she had failed to satisfy. There was evidence, which the defendant contested, from which the jury could have found that the defendant was under either a contractual obligation to care for the child or that she had voluntarily taken care of the child. The jury was not required to find either, which was reversible error.

29. WILLIAM L. PROSSER, HANDBOOK OF THE LAW OF TORTS 339 (4th ed. 1971). Despite his understanding that the distinction is justified by policy, he does not question the formal need (or not) to find a “relation,” surely a sufficiently soft term to require the question.

into a deep, water-filled trench, and as a result of his inaction the acquaintance drowned.³⁰ In a suit brought by the deceased man's wife, the court sustained a motion to dismiss, denying even potential liability for negligence, and holding held that "[t]he mere fact that Bigan saw Yania in a position of peril in the water imposed upon him no legal, although a moral, obligation or duty to go to his rescue."³¹ The fact that Bigan had induced Yania, a competent adult (not a ward) to jump into the trench was brushed aside as meritless.³² He was not deemed to be in need of assistance because he freely chose to jump. No duty, therefore, no accountability: Charlie is liable, Frank is not. Frank exercises no power or authority or legal control in the situation. No one expects Frank to protect the railroad, its users or the territory through which it runs and hence he bears no duty; he is outside the network of individuals charged with responsibility.

What is important in terms of the imposition of a duty in the third category is the existence of a "status relation," according to which something about the connection between the neglectful actor and the context is sufficiently close and personal to charge him or her with a legal obligation by virtue of the expectations of the position the actor occupies. These relationships are based (at least in part) on our natures and on the closeness of the relationships, on disparities in knowledge and authority (broadly defined), and on dependence and survival. We tend to define these dependent power relations in terms of *control* (e.g., master-servant, common carrier-passenger), *knowledge imbalances* (e.g., physician-patient, attorney-client, clergy-penitent, parent-child), and *kinship/intimacy* (first and foremost, duties and immunities between parent and child, but also

30. *Yania v. Bigan*, 155 A.2d 343, 344 (Pa. 1959). The court did not consider the "business" part of the description "business acquaintance," when doing so might have produced a different analysis if not a different result. *Id.* at 345; *see* RESTATEMENT (SECOND) OF TORTS § 332 (1965). If the court had considered this relationship, it might have saddled the landowner, Bigan, with a duty of reasonable care toward Yania. It is not clear, however, that the content of that duty would require him to either refrain from taunting Yania in the first place or to rescue him if he did jump.

31. *Yania*, 155 A.2d at 343, 346.

32. *Id.* at 345 (stating "to contend that such [enticing and cajoling] conduct directed to an adult in full possession of all his mental faculties constitutes actionable negligence is not only without precedent but completely without merit").

between spouses, clergy and penitent, and physician and patient). In light of the depth and reciprocal nature of these relationships, we routinely impose status-related duties.³³ What is the normative source of that conclusion?

B. Evolutionary Perspectives.

The common law imposes a duty to act, the failure of which is punishable by imprisonment or financial responsibility. Under the traditional view, this duty arises not only when an actor operates within a recognized status relationship, but also when he acts under a contract to provide services. From this perspective, Charlie's liability is clear: He failed to do the very job he was hired to do and his liability is based on his employment contract. But why not impose a duty on Charlie's friend Frank who, by hypothesis, was aware of the danger and fully able to prevent its occurrence? Why is his status as a friend and knowledgeable bystander an insufficient basis for imposing a duty to remind Charlie? The origin of the answer rests in evolutionary theory, the neurobiology of learning, and the expectations that flow there from. This section begins with some fairly unobjectionable assumptions that underlie the field of evolutionary psychology.

1. Some assumptions underlying evolutionary psychology.

This subsection begins by setting out some of the presuppositions that underlie the evolutionary approach to legal analysis. The major point of this approach is to align the law's model of human behavior more closely with the way in which individuals actually behave, and the reasons therefore, thus testing our intuitions against our history.³⁴

33. See, e.g., SANFORD H. KADISH & STEPHEN J. SCHULHOFER, *CRIMINAL LAW AND ITS PROCESSES: CASES AND MATERIALS* 193 n.9 (8th ed. 2007) (setting out the traditional role relationships that impose a duty). See generally John Kleinig, *Criminal Liability for Failures to Act*, 49 *LAW & CONTEMP. PROBS.* 161 (1986).

34. See, e.g., Owen D. Jones & Timothy H. Goldsmith, *Law and Behavioral Biology*, 105 *COLUM. L. REV.* 405, 423 (2005); Owen D. Jones, *Behavioral Genetics and Crime, in Context*, 69 *LAW & CONTEMP. PROBS.* 81 (2006).

(A) Human beings, like every species of every genus, have evolved through the process of natural selection. This process reflects millions of years of adaptation such that the basic architecture of our anatomy and physiology is itself millions of years in the making. As creatures of natural selection, maintaining “fitness,” the ability to reproduce our phenotypic design, is a never-ending procedure.³⁵

(B) The brain and the mind are the products of this enormously complex process, and they too generally reflect functional adaptations to the environment in which they evolved.³⁶ Moreover, the “psychological constituents of human . . . nature, like the anatomical and physiological elements thereof, exhibit adaptive design for the solution of particularly recurrent problems faced by our ancestors.”³⁷ Decisions we make today are the product of neurobiological mechanisms whose architecture was initially acquired in a primitive stage of humankind.³⁸

35. Excellent introductions to this topic for lay people (like me) include STEVE JONES, *THE LANGUAGE OF GENES: SOLVING THE MYSTERY OF OUR GENETIC PAST, PRESENT AND FUTURE* (1993); MARK RIDLEY, *THE COOPERATIVE GENE: HOW MENDEL'S DEMON EXPLAINS THE EVOLUTION OF COMPLEX BEINGS* (2001); and MICHAEL R. ROSE, *DARWIN'S SPECTRE: EVOLUTIONARY BIOLOGY IN THE MODERN WORLD* (1998).

36. The distinction between brain and mind (our seat of self-consciousness) is one of great interest, and one I am now addressing in a paper tentatively titled, *Normative Neuroscience and Criminal Law*. Suffice it to say that I think there are gaps between intention and neuronal firings that we may never eliminate as sources of inquiry. JOHN R. SEARLE, *RATIONALITY IN ACTION* ch. 3 (2001). There is some evidence to believe, moreover, that the gap is filled, in part, by ion activity at the quantum level. JEFFREY M. SCHWARTZ & SHARON BEGLEY, *THE MIND & THE BRAIN: NEUROPLASTICITY AND THE POWER OF MENTAL FORCE* ch. 8 (2002). Because I believe that it is neurons all the way down, there must be another question, also all the way down, and that question addresses the nature and source of human intellectual curiosity. As to how it might work, in which consciousness, an epiphenomenon, is embedded in complex networks of neural substrata that are causative, see GERALD M. EDELMAN, *WIDER THAN THE SKY: THE PHENOMENAL GIFT OF CONSCIOUSNESS* ch. 7 (2004) (describing consciousness as a “phenomenal transform,” whereby neural activities enable the higher order distinctions that make possible our ability to experience qualia).

37. See Wilson et al., *supra* note 14.

38. Owen Jones refers to this phenomenon as “Time-Shifted Rationality,” the idea being that our ability to process our cultural experiences occurs in brains that evolved under very different circumstances than we face today. Owen D. Jones, *Time-Shifted Rationality and the Law of Law's Leverage: Behavioral Economics Meets Behavioral Biology*, 95 NW. U. L. REV. 1141 (2001) (arguing that what we perceive as irrationalities are often likely to be products of a temporal mismatch between the environment in which natural selection shaped the brain to function and different, modern environments that technology has only recently enabled us to study). I would add to his general description only that this shift in decision-making continues to occur within a selectional system that includes both the ongoing temporal and repositioning effects of natural selection and how those effects

(C) The architectural designs of our neuroanatomy (our cerebral cortex and sub-cortical mechanisms) and our neurophysiology (neurotransmitters, hormones and their regulators, and the like)—our phenotype—reflects our genotype as it continually responds to the actual environments in which we live.³⁹ A fuller understanding of how we make decisions, therefore, requires that we take into account the fact that the human genotype came into being to solve problems which, for most of us, are no longer a matter of survival.

(D) Many of the features that constitute human decision-making are inaccessible to us through introspection because “the phenomenology of deliberation and reasoned choice is often illusory and reconstructive.”⁴⁰ This is not to say that our information processing is simply a helter-skelter, *ad hoc* affair; it is not. We do plan and introspect and use our cognitive resources. It is to claim, however, that our information processing mechanisms are not entirely apparent even when we attempt to introspect on how those mechanisms operate.

(E) Evolution and adaptation are on-going phenomena. The once prevailing wisdom that the adult brain was hard-wired and fixed, immune to change is simply wrong. Neuroplasticity, the ability of neurons in the brain to generate new connections and rewire or remodel the brain, is never ending, although it is sometimes more limited in adults than in children.⁴¹

2. Behavioral genetics and neuroscience.

The naive folk and legal views of our genetic endowment miss many of the points just made. These views describe genetic

operate neurobiologically (and on balance) to produce some standard deviation of the population who have or perceive themselves as having a small chance of success, i.e., inclusive fitness.

39. See, e.g., SCHWARTZ & BEGLEY, *supra* note 36 (discussing efforts to reprogram patients suffering with Obsessive-Compulsive Disorder); ANTONIO R. DAMASIO, *DESCARTES' ERROR: EMOTION, REASON, AND THE HUMAN BRAIN* 11 (Penguin Books 2005) (1994).

40. Wilson et al., *supra* note 14, at 383.

41. See, e.g., SCHWARTZ & BEGLEY, *supra* note 36 (detailing the history of the overthrow of the once conventional wisdom); ELKHONON GOLDBERG, *THE WISDOM PARADOX: HOW YOUR MIND CAN GROW STRONGER AS YOUR BRAIN GROWS OLDER* (2005).

development through the simile of a blueprint—an algorithm that determines the direction and shape of all future development.⁴² Genes play a crucial part in the timing and direction of an individual's development. They are only one part, however, and some small amount of our DNA does in fact insure that the overwhelming majority of us are born with all and only the right parts and mostly in the “right” places.⁴³ But our genes also have significant roles in our ongoing development; that is to say, they do far more than determine when puberty begins, when our hair grays, when our chins begin to drop, and so on. Crucially, the vast majority of our genome, acting like the immune system, exists to begin reactions to our environments, whatever they may be, in an adaptive way: “The function of many genes is . . . to switch other genes on or off. And the susceptibility of a gene to be switched on or off depends on the sensitivity of its promoters;” that is, on a type of genetic material that facilitates the production of proteins when other genetic materials (“transcription factors”) attach.⁴⁴ On the neurobiological view of

42. *But see* Roper v. Simmons, 543 U.S. 551 (2005) (resting its holding that the Eighth Amendment's prohibition on cruel and unusual punishment prohibits the execution of minors, in part, on the fact that juvenile brain development is immature with respect to decision-making and impulse control).

43. Of the roughly three billion chemical bases that compose a molecule of DNA, the most commonly cited figure indicates that the human genome is roughly 99.9% identical among all *homo sapiens* everywhere. *See, e.g.*, National Institute of Health, *Genes & Population*, available at <http://publications.nigms.nih.gov/genepop/qanda.html>; American Museum of Natural History, *Our Genetic Identity*, available at http://www.amnh.org/exhibitions/genomics/1_identity/ninety_nine.html. Of those three billion bases—the familiar A, T, G and C—only a small percentage actually code for proteins that provide something akin to a blueprint. The rest were, until recently, disparaged as “junk DNA.” *See, e.g.*, Gerton Lunter, *Non-genic Evolution and Selection in the Human Genome or: “Junk DNA”*, available at <http://www.stats.ox.ac.uk/~hein/HumanGenome/hg.pdf> (summarizing recent literature and putting the figure at 98.5%); W. Wayt Gibbs, *The Unseen Genome: The Gems of ‘Junk’ DNA*, 289 SCI. AM. 46 (Nov. 2003) available at <http://www.am.org/docs2/news/JunkDNA111903.htm> (putting the percentage of protein coding DNA at 2%); John Mattick, *The Hidden Genetic Program of Complex Organisms* SCI. AM., Sept. 2004, at 61, available at <http://www.rpgroup.caltech.edu/~natsirt/ME96/RNA.pdf>. Their potential explanatory power is just now being uncovered.

44. MATT RIDLEY, *NATURE VIA NURTURE: GENES, EXPERIENCE, AND WHAT MAKES US HUMAN* 32 (2003). Estimates vary slightly but the current thinking is that only 3–5% of our DNA exists to code for specific protein production. The remaining 95% or so lie in wait, reacting to environmental input before springing into adaptive action. *See, e.g.*, Gibbs *supra* note 43; *Scientists Explore Function of “Junk DNA,”* SCI. DAILY (Nov. 21, 2006), <http://www.sciencedaily.com/releases/2006/11/061113180029.htm>. For a technical description of the operation of transcription factors, see, for example, *Transcription*

humankind, each of us is literally a work-in-progress so that who an actor is at any moment in time, and the choices he or she then *can* effect, depend on the actual circumstances and experiences he or she encounters. Consider the neurologist Antonio Damasio:

[A]s we develop from infancy to adulthood, the design of the brain circuitries that represent our evolving body and its interaction with the world seem to depend on the activities in which the organism engages, and on the action of the innate bioregulatory circuitries, *as the latter react to such activities*.⁴⁵

What causes such genes to switch other genes on or off and thereby effect our neurobiological development in response to our environment *is* our environment; that is, all the unique, non-genetic experiences each individual encounters.⁴⁶ The experiences we have, which include the jobs we hold and the reliance engendered thereby, and the close and trusting networks we have and acquire, *always* produce who we are, and they include every one of our individual motivational sets, including the creation of and responses to the existence of a duty. Our unique motivational sets or states include our “desires, evaluations, attitudes, projects, and so on,”⁴⁷ what philosophers refer to as “intentionality,”⁴⁸ and the development of those sets define an ongoing phenomenon. The combination of

Factor Imaging with the Atomic Force Microscope, available at http://www.iscid.org/encyclopedia/Transcription_Factor.

45. DAMASIO, *supra* note 39, at 111 (emphasis added).

46. *See id.* at 109 (noting that the modern brain works “under the influence of environmental circumstances complemented and constrained by the influence of the innately and precisely set circuits concerned with biological regulation”).

47. Bernard Williams, *Internal Reasons and the Obscurity of Blame*, in MAKING SENSE OF HUMANITY AND OTHER PHILOSOPHICAL PAPERS 35 (Benard Williams eds., 1995). There is no doubt that the job of describing the composition of a *state* is itself a complex undertaking. *Cf.* David C. Rowe & Kristen C. Jacobsen, *In the Mainstream: Research in Behavioral Genetics*, in BEHAVIORAL GENETICS: THE CLASH OF CULTURE AND BIOLOGY 23–24 (Ronald A. Carson & Mark A. Rothman eds., 1999) (describing *state dependence* as a part of a developmental model according to which “past behavior affects future behavior,” such that the commission of a crime, for example, increases the likelihood of future criminality).

48. FRED DRETSKE, NATURALIZING THE MIND 28–34 (1995).

genotype and our ordinary experiences thus places some limitations on the kind of conduct we might expect of ordinary people.

3. *Duty from an evolutionary perspective.*

Our human genotype came into existence long before anyone thought about taking collections for the victims of disasters such as Katrina or the Tsunami of Christmas 2004. On those occasions, we opened our hearts and our wallets and our talents (and certainly our prayers) to victims whom we did not know, may never have heard of, and would never meet.⁴⁹ Helping simply seemed like the right thing to do in an interdependent world linked by sophisticated communications that brought images of devastation to us in real time. Many of us have reached this stage of moral development, at least on such occasions. But our moral psychological apparatus began to emerge in a world that resembled primate communities in which individuals were far more likely to protect their own and enforce justice within the clan than help an unrelated comrade.⁵⁰ Thus we might expect that as we evolved, given the history of our genotypes, we would continue to find it easier to help individuals close to us than we would perfect strangers and, in either case, especially easier to give aid if the individual is close at hand. On this view, Katrina and the Tsunami were epochal, making us aware that everyone may be in need of assistance for survival. It seems more likely that, in general, the “social-emotional responses . . . inherited from our primate ancestors (due, presumably, to some adaptive advantage)” have shaped our general approaches to morality such that we more

49. See Press Release, Red Cross, *International Red Cross Needs For Tsunami Relief Program Met* (Jan. 26, 2005), available at http://www.redcross.org/pressrelease/0,1077,0_314_4043,00.html (discussing ongoing efforts to reconstruct to Indian Ocean victims).

50. See, e.g., Joan B. Silk, *The Evolution of Cooperation in Primate Groups*, in *MORAL SENTIMENTS AND MATERIAL INTERESTS: ON THE FOUNDATIONS OF COOPERATION IN ECONOMIC LIFE* 43 (Herbert Gintis, et al. eds., 2005); Sara F. Brosnan & Frans B. M. de Waal, *Responses to a Simpler Barter Task in Chimpanzees Pan Troglodytes*, 46 *PRIMATES* 173 (2005); Sara F. Brosnan, Hillary C. Schiff & Frans B.M. de Waal, *Tolerance for Inequity May Increase with Social Closeness in Chimpanzees*, *PROC. ROYAL SOC'Y LONDON B*, Feb. 7, 2005, at 253, available at http://www.emory.edu/LIVING_LINKS/pdf_attachments/Brosnan_Tolerance05.pdf.

readily engage those areas of the brain that bring out our affective natures when difficult, impersonal moral acts are called for.⁵¹

Some support for this conclusion comes in the form of some ingenious imaging experiments by Joshua Greene and his collaborators, who have examined the neuroanatomical reactions of individuals to the well known Trolley Problem, first introduced as a thought experiment by Philippa Foot and elaborated by Judith Jarvis Thomson.⁵² The problem is quite simple: you are conducting a high speed train when you realize suddenly that the train is on a collision course with five workers on the track. They are working with jack-hammers and other noisy tools and are unmindful of any potential warnings. You recognize at the last moment that you can switch the train to another track, but one worker who is also oblivious to the warnings is working on the second track: if you do nothing, five workers will be killed; if you switch to track two, one worker will be killed. What should you do? The vast majority of subjects who respond to the scenario make a quick and relatively easy utility calculation and throw the switch.⁵³

Change the facts slightly, however, and the same calculation is not so simple, although the arithmetic is the same. Now suppose the same fast moving train, the same noisy jack-hammers and other noisy distractions inducing the same unmindfulness, but this time there is no side track. Rather, there is a heavy man standing next to you on a footbridge under which the train will pass before it strikes the five workers. You can throw the man off the bridge into the path of the train, which will stop it and save the five workers. What should you do? Now “[m]ost people say no,”⁵⁴ I won’t do it, and they take a

51. Support for this view comes from some imaginative experiments by Greene and others. See, e.g., Joshua D. Greene et al., *The Neural Bases of Cognitive Conflict and Control in Moral Judgment*, 44 NEURON 389, 398 (2004) (finding neural correlates for solving certain moral dilemmas).

52. Philippa Foot, *The Problem of Abortion and the Doctrine of Double Effect*, 5 OXFORD REV. 5 (1967); Judith J. Thomson, *The Trolley Problem*, 94 YALE L.J. 1395 (1985), available at <http://www.jstor.org/pss/796133>.

53. Greene et al., *supra* note 51, at 389–90. See MARC D. HAUSER, MORAL MINDS: HOW NATURE DESIGNED OUR UNIVERSAL MORAL SENSE OF RIGHT AND WRONG 32–33 (2006).

54. Greene et al., *An fMRI Investigation of Emotional Engagement in Moral Judgment*, 293 SCIENCE 2105 (2001).

longer time to reach this conclusion than they did in the Trolley version.⁵⁵ Moreover, decision-making in these two circumstances under *fmri* visualization shows that different areas of the brain are involved in reaching these solutions and that the areas evolved at different points in evolutionary time, the affective emerging well before the cognitive.⁵⁶

Greene and his colleagues have labeled the traditional trolley problem an example of an *impersonal moral dilemma*—impersonal because, in contrast to the footbridge problem, the reaction is driven more by cognitive brain processes than by affective (emotional) processes.⁵⁷ The sub-cortical location of the mechanisms that the reactions to the trolley scenario trigger are ones that tend, in general, to respond more cognitively *in the aggregate*.⁵⁸ On the one hand, it would be surprising if, over time, we had not evolved different processes for different types of moral dilemmas, including those, like Katrina and the Tsunami, that trigger all our sympathies at once. Domain-specific processing is the rule rather than the exception in

55. Greene et al., *supra* note 51, at 389–90.

56. The type of dilemma characterized by the footbridge problem, a serious physical harm, befalling a particular person or set of people and requiring a hands-on resolution, *id.* at 389, generated substantial activity in areas of the brain associated with more affective control of reasoning and in the standard trolley scenario, more activity in areas of the abstract cognitive reasoning. *Id.* at 398. Greene and his associates have experimented with a number of different moral dilemmas and each tended to validate the distinctions between the two main scenarios discussed in the text.

57. *Id.*; Jonathan Greene & Jonathan Haidt, *How (and Where) Does Moral Judgment Work?*, 12 TRENDS IN COGNITIVE SCI. 517, 519 (2002), available at <http://www.wjh.harvard.edu/~jgreene/GreeneWJH/Greene-Haidt-TiCS-02.pdf>.

58. “In the aggregate” is an important qualifier because questions about fitness, in general, express themselves statistically as probabilities. See, e.g., ROBERT PLONIM, NATURE AND NURTURE: AN INTRODUCTION TO HUMAN BEHAVIORAL GENETICS ch. 3 (1990); Elliott Sober & David Sloan Wilson, *Summary of Unto Others: The Evolution and Psychology of Unselfish Behavior*, 7 J. CONSCIOUSNESS STUD. 185 (2000), reprinted in EVOLUTIONARY ORIGINS OF MORALITY: CROSS-DISCIPLINARY PERSPECTIVES 185, 187–92 (Leonard D. Katz ed., 2000); Daly & Wilson, *supra* note 16, at 59 (noting that what people, as organisms, seek to achieve is “*fitness*: the expected value (in a statistical sense) of a phenotypic design’s success in promoting the replicative success of its bearer’s genes relative to their alleles (alternative variants of the same genetic locus), in the environment(s) in which that phenotypic design evolved”); Jones & Goldsmith, *supra* note 34, at 423 (suggesting that evolutionary theory, among other resources within biology as a discipline, “can be useful in predicting, at least statistically, both the environmental causes of [psychological brain] states and the nature of the responses that are likely to follow”) (emphasis added).

our neuroanatomy, although it is not fixed. The thesis of Greene and his collaborators goes further still:

[I]t has become clear that natural selection can favor altruistic instincts under the right conditions, and many believe that this is how human altruism came to be. If this is right, then our altruistic instincts will reflect the environment in which they evolved rather than our present environment. With this in mind, consider that our ancestors did not evolve in an environment in which total strangers on opposite sides of the world could save each others' lives by making rather relatively modest material sacrifices

. . . .

[T]he evolutionary account . . . suggests [that] we ignore the plight of the world's poorest [when we do] not because we implicitly appreciate the nuanced structure of moral obligation, but because, the way our brains are wired up, needy people who are "up close and personal" push our emotional buttons, whereas those who are out of sight languish out of mind.⁵⁹

Although we should distinguish between our basic architecture, which Greene and others describe, and the ongoing process of selection, which suggests some significant phenotype geared for moving toward a greater radius of empathy, the implications of Greene's work for the emergence of an AvO as a shared legal doctrine are important: We were wired to respond to those who are close to us, often in a family, status or trusting relationship. Over time and with uniquely individual but sometimes shared experiences,

59. Joshua D. Greene, *From Neural "Is" to Moral "Ought": What Are the Moral Implications of Neuroscientific Moral Psychology*, 4 NATURE REV. NEUROSCIENCE 847, 849 (2003) (footnotes omitted). For a recent and very accessible account of these issues, see Steven Pinker, *The Moral Instinct*, N. Y. TIMES, Jan. 13, 2008, § 6, available at <http://www.nytimes.com/2008/01/13/magazine/13Psychology-t.html> (concluding that numerous additional findings "corroborate Greene's theory that our nonutilitarian intuitions come from the victory of an emotional impulse over a cost-benefit analysis).

we have moved our moral emotions outward from the basic units of genetic fitness; that is, in Humean fashion, from those closest to us toward others to whom our duties have arisen later in our evolutionary history. We do understand, as did Hume, that “[w]hat is honorable, what is fair, what is noble, what is generous, takes possession of the heart, and animates us to embrace and maintain it.”⁶⁰ The evolution of culture, affected by the necessity that follows vast changes in population and technology, accounts in large part for the imposition of a contractual duty. But this conclusion is the result of a struggle to overcome our deepest evolutionary history.⁶¹

4. *Memory and duty.*

The imposition of a *duty*, on the view offered here, arose from an evolutionary neurobiological commitment made during our distant ancestors' time, when protecting their own communities and maintaining their fitness was key. Today our expectations are different concerning Charlie and Frank; Charlie bears responsibility for failing to throw the switch. Charlie's position and the responsibilities he accepts in virtue thereof have implications that generate expectations at a deep, individual, phenotypic level.

This level implicates the neuroscience of memory creation and capacity and the many conditions and events that influence our ability

60. See HUME, *PRINCIPLES OF MORALS*, *supra* note 2, at 172.

61. In light of the fact that there is often a moral duty where there is no legal duty, it is certainly appropriate to ask whether these adaptive mechanisms effect the creation and imposition of both moral and legal duties, or only the latter. Certainly Hume and Smith were concerned primarily with moral duties rather than legal ones, and thus one is forced to conclude that the answer is that these mechanisms effect both but that, in Anglo-American jurisprudence, where the violation of a legal duty imposes financial responsibility on the inadvertent tortfeasor or imprisonment on the guilty criminal, we are more hesitant to impose legal duties than we are to recognize moral duties. For example, it's worth noting that not so long ago, a father's financial responsibility to a child was deemed to be an exclusively "moral duty" that could not be enforced at law. 1 WILLIAM BLACKSTONE, *COMMENTARIES ON THE LAW OF ENGLAND* *122, *446–54. Only when it became clear that children might be left destitute unless the father bore a legal duty did courts begin to this convert moral duty into a legal one. Karen Czapanskiy, *Volunteers and Draftees: The Struggle for Parental Equality*, 38 UCLA L. REV. 1415, 1436 n.73 (1991). Moreover, in cultures that often maximize individual freedom and risk-taking, we should not be too surprised to find that the creation of legal duties follows the creation of moral duties at some distance, for better or worse. See, e.g., Richard A. Epstein, *A Theory of Strict Liability*, 2 J. LEGAL STUD. 151, 197–204 (1973).

to control both our memory and our behavior; for example, to throw the appropriate switch in a timely fashion.⁶² “[W]hen we speak of learning and memory, . . . what we are . . . talking about is the impact of the environment in the nervous system. It is here that genetics and the environment become inextricably entangled.”⁶³ Allan Gibbard explains: “The genetic plan for a human being will be full of contingency plans: full of schemes that in effect say ‘If *A* then do *X*, whereas if *B* then do *Y*.’”⁶⁴

Given a difference in how two people act, it is perfectly biological to say something like this: the two people’s genetic plans [their genotypes] are the same in relevant respects. They’ve encountered, though, different cues as to their circumstances. The cues the two have encountered differ in ways for which the single genetic plan they share makes provision. The plan they share is to respond one way given one set of cues and another way given the other. The cues in question may be immediate ones, or they may be cues that came years ago in childhood and have affected the development of psychic mechanisms or the setting of parameters for them.⁶⁵

62. On the adaptive role of memory and learning “under conditions of expectancy,” see GERALD M. EDELMAN, *BRIGHT AIR, BRILLIANT FIRE: ON THE MATTER OF THE MIND* 101 (1992); GERALD M. EDELMAN & GIULIO TONONI, *A UNIVERSE OF CONSCIOUSNESS* ch. 8 (2000).

63. WILLIAM R. CLARK & MICHAEL GRUNSTEIN, *ARE WE HARD WIRED? THE ROLE OF GENES IN HUMAN BEHAVIOR* 136 (2000). Neuroscientists typically speak of at least two types of memory, procedural and declarative, where the former describes the effortless execution of tasks that comes from repeated practice, a kind of “autopilot” effect, and the latter is “explicit, in that we are aware we are remembering something in the first place.” SUSAN GREENFIELD, *THE PRIVATE LIFE OF THE BRAIN: EMOTIONS, CONSCIOUSNESS, AND THE SECRET SELF* 66, 67 (2000); accord, e.g., Robert M. Sapolsky, *The Prefrontal Cortex and the Criminal Justice System*, 359 *PROC. ROYAL SOC’Y LONDON* 1787, 1790 (2004). Others add a third memory module, emotional memory, which has a privileged status in our brains. See, e.g., Kevin S. LaBar & Roberto Cabeza, *Cognitive Neuroscience of Emotional Memory*, 7 *NATURE REV. NEUROSCIENCE* 54 (2006).

64. Allan Gibbard, *Genetic Plans, Genetic Differences, and Violence: Some Chief Possibilities*, in *GENETICS AND CRIMINAL BEHAVIOR* 169, 173 (David Wasserman & Robert Wachbroit eds., 2001).

65. *Id.* at 174. For example, there is rich data in the neuroscience literature indicating that early maternal rejection, physical or psychological abuse, and exposure to environmental toxins conduce to violent behavior as the child matures. See, e.g., Gary W. Evans & Elyse Kantrowitz, *Socioeconomic Status and Health: The Potential Role of Environmental Risk Exposure*, 23 *ANN. REV. PUB. HEALTH*

Thus, although Charlie and Frank enjoy essentially the same genome—the difference between the two genomes is approximately .1% or 3 million base pairs out of roughly 3 billion total⁶⁶—their experiences have caused us and them to have different expectations. Charlie's brain is literally better structured to the task of explicitly remembering to switch the tracks.

The creation of memory reflects the openness of selection. Memory is created, in part, from the same forces: similar information from the environment is repeatedly stored in different mapped areas of the cerebral cortex. As Gerald Edelman points out, “[m]emory in a degenerate system is recategorical, not strictly replicative. There is no prior set of determinant codes governing categories of memory, only the previous population structure of the network, the state of the value systems, and the physical acts carried out at a given moment.”⁶⁷ “Degeneracy” refers to the fact that there are multiple networks for outputs in a selectional system.⁶⁸ “Recategorization” refers to the fact that when information impinges upon us, it is mapped or “categorized” in numerous locations in our brains. Memory is the procedure by which information is repeatedly rehearsed in different contexts and hence repeatedly stored.⁶⁹ It is literally the case, therefore, that “the formation of mental association takes the form of a new and strengthened connection between neurons.”⁷⁰ And this

303 (2002); Dan Orzech, *Chemical Kids—Environmental Toxins and Child Development*, 7 SOC. WORK TODAY 37 (March/Apr 2007).

66. See, e.g., LORI B. ANDREWS ET. AL., *GENETICS: ETHICS, LAW AND POLICY* 27 (2d ed. 2006).

67. EDELMAN & TONONI, *supra* note 62, at 98. The phrase “value system” is, in some ways, the key to natural selection. It includes the “phenotypic aspects of an organism that were selected during evolution and constrain somatic selective events, such as the synaptic changes that occur during brain development and experience.” That is to say, it is composed of those observable characteristics of our species that define and constrain our developmental functioning. Think about the shape of our hands and our prehensile thumb, the nature of our perceptual apparatuses, and so on. They provide a framework for what is possible. In other words, value systems make possible our ability to organize our “perceptions and behavioral response[s].” Values are necessary preconditions to organizing our universes, but they are not sufficient. They are essential features in the processes that make understanding possible, but alone they are not adequate to permit understanding. *Id.* at 88.

68. *Id.* at 86.

69. EDELMAN, *supra* note 62, at 102. Other researchers describe this recategorization phenomenon as “convergence zones,” which “make possible the abstract representations that are independent of the concrete stimulus.” JOSEPH LEDOUX, *SYNAPTIC SELF* 105 (2002).

70. RIDLEY, *supra* note 44, at 180–81.

process operates in varying degrees throughout our lives.⁷¹ Contexts that give rise to a “duty” reflect, among other things, repeated occurrences with the same parties or types of parties in what are generally pre-existing power or kinship relationships.⁷² And poor Charlie was no neophyte, although newness in the context of a contractually-imposed duty is no excuse. Rather, he was an experienced employee who knew better and had the controls necessary to prevent the collision at his fingertips. And we rightly blame him for failing.

C. *The Knowledgeable Bystander.*

Cases in which bystanders easily could but did not intervene to prevent a potential or ongoing harm are legion. Perhaps the most notorious of such cases occurred when Kitty Genovese, a single woman living alone in a large New York apartment complex, was stabbed to death on three separate occasions over a period of thirty-five minutes or more while nearly forty of her neighbors (at one or more times during that period) heard her screams, looked on from their windows, and failed even to call the police.⁷³ Each witnessing neighbor—like Frank, but lacking his forgetfulness excuse—was in the position to halt (or at least attempt to halt) the deadly harm. Though we do not ordinarily deem these “Bad Samaritans” to be *causes* of death, every potential rescuer is *a cause-in-fact* of the death. The attacker initiated and *caused* her death in the most obvious dynamic way, each knowledgeable and capable neighbor *allowed* her to be killed.

71. SCHWARTZ & BEGLEY, *supra* note 36, ch. 8.

72. “Generally” acknowledges the fact that with some dependent power relationships, for example, attorney-client or physician-patient, duties arise as soon as the relationship is created, and sometimes even before. *See, e.g.,* Dennis P. Duffy, Selected Ethics and Professionalism Issues in Labor and Employment Law Cases, in EMPLOYMENT AND LABOR RELATIONS LAW FOR THE CORPORATE COUNSEL AND THE GENERAL PRACTITIONER 998, 1048–50 (American Law Institute, American Bar Association Continuing Legal Education 2005) (noting that duties of confidentiality may attach even if an attorney-client relationship is not established, provided the client came to the attorney for legal advice).

73. *See, e.g.,* Martin Gansberg, *Thirty-Eight Who Saw Murder Didn't Call the Police*, N.Y. TIMES, March 27, 1964, <http://www.angelfire.com/comics/mooreportal/kitty.html>; Diane Kiesel, *Who Saw This Happen?*, 69 A.B.A.J. 1208 (1983).

Despite that obvious fact, omission liability still (and often) causes consternation. Many commentators take umbrage when we try to impose “Bad Samaritan” liability on bystanders, as if providing minimal assistance was a significant invasion of their time, space, safety, and peace of mind.⁷⁴ There certainly are issues that make imposing a duty on bystanders to give aid problematic, at least some of the time,⁷⁵ but some critics experience an uneasiness imposing liability or attributing culpability even if I stand by and choose to watch as an unknown two year-old child drowns in a foot of water when I could easily reach down and pull the child to safety. I would be a cause of that child’s death, although I did not initiate the deadly force (dynamic or not) that ultimately led to the dreadful outcome; in fact, this preventable death may have occurred without any wrongful intent.⁷⁶ Although most people, like the judge in *Yania*, would find my omission morally reprehensible, they retain the intuition that I did not legally cause the baby’s death. The tendency is to view legal causation as requiring a dynamic force that leads to serious injury, and my failure is not typically perceived as either a necessary or sufficient condition for the child’s death.

Why this is so is not entirely clear. There are only hints. Research using *fmri* technology suggests that areas of the brain involved in processing social-emotional reactions to moral dilemmas are strongly aroused in problems akin to providing aid to a drowning child.⁷⁷ A clue to what occurs at a more cognitive, intellectual level, though, is provided by the drafters of the *First Restatement of Torts*, which the

74. See, e.g., John Kleinig, *Good Samaritanism*, 5 PHIL. & PUB. AFFAIRS 382 (1976) (suggesting that when the pursuit of one’s own interests is a causal factor in an injury suffered by another, some state-imposed duty to aid may be warranted).

75. Lord Macaulay, for example, was concerned about the circumstances that would give rise to a duty to aid, the scope of a duty to aid, the potential for harm to the aider, and so on. See Liam Murphy, *Benevolence, Law, and Liberty: The Case of Required Rescue*, 89 GEO. L. J. 605, 606 (2001) (citing Thomas Babington Macaulay, *Notes to the Indian Penal Code*, in THE WORKS OF LORD MACAULAY 314–15 (Lady Trevelyan ed., 1900)).

76. See, e.g., MODEL PENAL CODE § 2.02(2).

77. Joshua Greene, *The Secret of Kant’s Soul*, in 3 MORAL PSYCHOLOGY: THE NEUROSCIENCE OF MORALITY 35 (Walter Sinnott-Armstrong ed., 2008)), available at <http://www.wjh.harvard.edu/~jgreene/GreeneWJH/Greene-KantSoul.pdf>; Greene, *supra* note 59 at 848. See text accompanying notes 57–59.

Yania court cited.⁷⁸ The *First Restatement's* drafters, publishing in 1923 and 1924, limited the bystander's duty to provide aid to those circumstances in which the bystander controls the force that causes the injury. In the drowning child scenario, because I did not control that force (or even touch the child) the reasoning goes, I owe no duty to aid the drowning baby at all, not even the lesser duty of rendering minimal aid. The basis for the intuition appears to be that only the person who creates or propels the force that produces physical peril owes a duty of rescue.⁷⁹ This is a naive neurobiological response that seems to have more to do with some form of selfishness rather than empathy. The tragedy of individuals like Kitty Genovese, who was brutalized for half an hour as neighbors remained mute behind their shuttered windows,⁸⁰ and the many others who have suffered injuries, some needlessly, is that we have not moved legislatively, at least, to harness an evolutionary tendency that is in many circumstances, no longer necessary to survival.

III. A HUMEAN ACCOUNT OF AVO

There is no knockout argument that will settle for all time the reason why AvO persists. Some matters are nonetheless clear: our ordinary understanding of the term "causation" is often crude and flabby, and it frequently masks *sub rosa* evolutionary developments and contemporary policy decisions that are, by today's standards, insufficiently grounded.⁸¹ We know that Charlie was *a* cause of the crash, but we tend to overlook Frank, a knowledgeable bystander, whose non-culpable omission consisted of forgetting to remind his friend Charlie to pull the switch. Additional clues to the persistence

78. *Yania v. Bigan*, 155 A.2d 343, 345 (1959) (citing RESTATEMENT (FIRST) TORTS § 314 (1934)).

79. RESTATEMENT (FIRST) TORTS § 314 cmt. c (1934).

80. See, e.g., Gansberg, *supra* note 73; Kiesel, *supra* note 73.

81. There is nothing new in this assertion. Professor Wes Malone demonstrated fifty years ago what every well-trained Torts student learns today in the first semester of law school: Even material causation, "*cause-in-fact*," often invokes some policy-making decisions. See Wes Malone, *Ruminations on Cause-in-Fact*, 9 STAN. L. REV. 60 (1956) (demonstrating the policy basis for finding material causation where the structure of wrongdoing is clearly not sufficient to meet the but-for test).

of the distinction from Hume, who addressed questions related to the natural limitations on our capacity for moral thinking; his responses bear on this topic. Whether we should follow either position presents separate normative and prescriptive questions.

A. *The Humean Analysis*

In Hume's analysis of the existence (or not) of a natural tendency to support the public's interest, he hopes to show that "there is no such passion in human minds as the love of mankind, *merely as such*, independent of personal qualities, of services, or of relations to oneself."⁸² He acknowledges that most of us are affected by the happiness or misery of others, but that such sensibilities raise different issues, which stem from *sympathy*. According to Hume, sympathy lies in the personal capacity we develop through our past associations and experiences with others, beginning most significantly at home and within our closest filial relationships.⁸³ On Hume's telling, these associations awaken in us certain passions or emotions.⁸⁴ Consistent with his sense that our passions are stronger toward those with whom we are in close familial and communal proximity than toward those whom we know less well, he notes that we naturally tend to feel closer—to be more partial—to our children than our cousins, to our cousins than our neighbors, to our neighbors than strangers, and so on in an arc that moves out in a circle from the filial center.⁸⁵ Hume argues in the *Treatise* that if there were such a

82. HUME, *TREATISE*, *supra* note 3, at 481.

83. Hume explains early in the *TREATISE* that sympathy, like everything else we know, moves through impressions and ideas from the "relation of objects to ourselves." *Id.* at 322. Later, and in remarkably contemporary evolutionary terms, he posits that our necessary capacity for sympathy "is no other than that natural appetite betwixt the sexes, which united them together, and preserves their union." *Id.* at 486. Ultimately, as I explain below, sympathy radiates out from the nuclear family and becomes entwined with that self interest (to produce conventions) which produces morality and justice. *See, e.g., id.* at 574–91.

84. *Id.* (noting that this capacity for sympathy is not something we discern in the mental states of others, but something we acquire from inferences and impressions we gain based on our observation of the behavior of ourselves and others).

85. *Id.* at 486–87 (arguing that the formation of society begins with the union formed "betwixt the parent and offspring," which mitigates each individual's natural selfishness).

thing as an original “passion in human minds, as the love of mankind, merely as such” we should experience it in the same way we experience the passion we feel for our loved ones, but we do not: “Were there an universal love among all human creatures, it would appear after the same manner.”⁸⁶ The upshot is that we relate to others according to how they affect us as objects of love and hatred, not because we have an original psychological motive to public benefit. Hume acknowledges the existence of generosity “to the honor of human nature,” but he argues that this noble affection “instead of fitting men for large societies, is almost as contrary to them, as the most narrow selfishness.”⁸⁷ It is only when each of us comes to appreciate the need to protect our own loved ones and possessions that *conventions*, including duties, come into existence.⁸⁸ Hume’s reasoning is consistent with our knowledge of evolutionary development.

Hume’s moral psychology, which emphasizes our natural desire to retain the benefits we already possess, supports this view. Hume’s analysis also suggests that the general distinction we draw between actions and omissions, where the latter is disfavored as a source of accountability, has less to do with the desire to be let alone—autonomy, a word we privilege—than it does with some innate selfishness, since it is clear that, for Hume, all moral action is generated by an internal natural sensibility.⁸⁹ Hume makes the

86. HUME, *TREATISE*, *supra* note 3, at 481. Hume did understand the value of and need for normative standards, which he described as “the general appetite to good, and aversion to evil.” *Id.* at 47. “The mind by an *original* instinct tends to unite itself with the good, and avoid the evil, tho’ they may be conceived merely in idea, and be consider’d as to exist in any future period of time.” *Id.* at 438 (emphasis in the original). Rawls teaches that, for Hume, deliberation is a practiced skill involving an “*imaginative rehearsal*” of the consequences of adopting various alternatives.” JOHN RAWLS, *LECTURES ON THE HISTORY OF MORAL PHILOSOPHY* 44 (2000).

87. HUME, *TREATISE*, *supra* note 3, at 487. As Rawls notes, for Hume the “state of nature” serves as a “useful fiction in showing the origin of justice in the inconveniences of our selfishness and in the scarcities in nature.” RAWLS, *supra* note 86, at 57.

88. Hume rarely uses the term “duty,” as we use it to describe a legal category for the breach of which responsibility may lie. Instead, he tends to speak of “obligations,” which are not “intelligible without an antecedent morality.” HUME, *TREATISE*, *supra* note 3, at 461–62 n.1; *see also* RAWLS, *supra* note 86, at 518 (using the term “duty” to make the same point).

89. This point is stated in many ways, but no where more clearly than in the introductory section of HUME, *PRINCIPLES OF MORALS*, *supra* note 2, at 169–75.

adaptionist point that because our natural inclinations to love others declines as we move further from the family nucleus, at the extreme those inclinations can produce contrary passions, that is, emotional states that can result in “a consequent opposition of actions.”⁹⁰ Hume is arguing that our natural affections go only so far, then we put up boundaries. “Sympathy” for humankind, Hume wrote, “is much fainter than our concern for ourselves, and sympathy with persons remote from us much fainter than that with persons [genetically] near and contiguous.”⁹¹ He explains this predilection to prefer those who are close in part when he defends the assertion that the contrary passions are generally offset by three *outward circumstances*: “[1] the internal satisfaction of our mind, [2] the external advantages of our body, and [3] the enjoyment of such possessions as we have acquir’d by our industry and good fortune.”⁹² The internal satisfaction of our mind is secure; no one has access to it. Others can ravage our bodies, but there’s no particular gain to them if they do so. The real danger is to our possessions, the physical things we work for to attain some security and maintain personal fitness. They, Hume told us, “are both exposed to the violence of others, and may be transferr’d without suffering any loss or alteration.”⁹³ They can be wrongly misappropriated. To make matters worse, our possessions, which belong to us and our families, are *scarce* and desirable; as a result, they are *unstable*. We have a natural fear of loss that we strive to protect.

Hume’s understanding of these natural negative passions, the raw desire to retain our local gains and pleasures and to protect ourselves and our loved ones from losses, is an important evolutionary

90. HUME, TREATISE, *supra* note 3, at 487; see also David Hume, *Of the Dignity and Meanness of Human Nature*, in DAVID HUME: SELECTED ESSAYS 43, 47–48 (Stephen Copley & Andrew Edgar eds., 1993).

91. HUME, PRINCIPLES OF MORALS, *supra* note 2, at 229. I am not (and could not) suggest that Hume was indifferent to a sympathy he calls benevolence, which is among the advantageous approbations any individual can enjoy. But even this quality of generosity is marked by a kind of utility. *Id.* at 178–82, 218–19, 225–32.

92. HUME, TREATISE, *supra* note 3, at 487.

93. *Id.* at 477–88.

insight.⁹⁴ It suggests the existence of some inward-looking, filial tendencies that must be overcome via cultural evolution before we are likely to render aid beyond our immediate family and environment. Within the human species, Hume notes, obligations to non-filial others exist because we impose them on others. They are often “artificial” virtues, that is, enforceable obligations imposed exogenously.⁹⁵

There is support from evolutionary psychology for Hume’s insight into the existence of familial and communal roots to our natural sympathy that comes from studies of kinship selection and reciprocal altruism in the animal kingdom. Studies of kinship selection predict that “differences in willingness of individuals to help others will be a function of their relatedness. The theory of reciprocal altruism predicts that altruistic behaviors will also be a function of beliefs about the recipient’s likelihood of reciprocating.”⁹⁶ The idea is that the pressures of selection and the desire to pass along genetic material to one’s progeny explain why many animals “are more likely to behave altruistically towards their relatives [and all those closely, genetically related to them in descending order] than towards unrelated members of their species.” The theory’s originator, William Hamilton, had predicted “that the degree of altruism will be greater, the closer the relationship.”⁹⁷ The point here is *not* that humans operate exactly as do animals in the wild; that notion is unreasonable.

94. It is at least worth noting that Darwin counted Hume as a central influence on his thinking. See, e.g., S. Uchii, Book Review, 54 PHIL. AND HIST. OF SCI. NEWSL., KYOTO UNIV. (2004), available at http://www.bun.kyoto-u.ac.jp/phisci/Newsletters/newslet_54.html.

95. *Id.* at 518–19. This is not to say that we do not have any sympathies toward to poor and miserable because of course we do. Rather, Hume’s point is that although the father may have a natural inclination to care for his young, there is no *natural* virtue or duty to “perform any action for the interest of strangers, except with a view to some reciprocal advantage.” *Id.* at 519. On the distinction in Hume’s thought between “artificial” and “natural” virtues, see RAWLS, *supra* note 86, at 51–58.

96. Daniel J. Kruger, Reciprocal Altruism, <http://www-personal.umich.edu/~kruger/ep5.html> (last visited Sept. 26, 2008) (citation omitted).

97. Samir Okasha, *Biological Altruism*, in *THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY* (2008), <http://plato.stanford.edu/archives/fall2008/entries/altruism-biological/>; see, e.g., W.D. Hamilton, *The Genetical Evolution of Social Behaviour I and II*, 7 J. THEORETICAL BIOLOGY 1, 1–16, 17–32 (1964); W.D. Hamilton, *Selfish and Spiteful Behaviour in an Evolutionary Model*, 28 NATURE 1218 (1970); W.D. Hamilton, *Altruism and Related Phenomena, Mainly in the Social Insects*, 3 ANN. REV. ECOLOGY AND SYSTEMATICS 193 (1972).

Our psychological processing is far too complex to be neatly summarized in any well-turned phrase. Rather, and this does seem to be both intuitively and empirically clear, we are generally far more committed to the well being of our family than we are toward strangers—an insight that is central to Hume's naturalism.⁹⁸

Data from primate studies and interdisciplinary studies of biologically altruistic behavior also provide support for Hume's position. For example, studies of chimp behavior suggest that these primates cooperate mainly with “kin and reciprocating partners.”⁹⁹ If that is true, it suggests that other-regarding behavior may be a tendency that co-evolved culturally, a tendency that may not always have come naturally to our ancestors in the wild. Multi-disciplinary research on altruistic punishment and altruistic cooperation bolsters this view. This body of work indicates that evolutionary dynamics vary in ways that make the latter difficult to sustain without some form of punishment.¹⁰⁰ It would be strange, therefore, if we did not retain some of our ancestral predilections, like favoring our own children over the children of others. Evolution, as we know, generally operates at the level of the gene; altruism among individuals is, in part, a group phenomenon.¹⁰¹ The payoff for altruistic conduct among unrelated individuals will not always be apparent. It may require both

98. Within family contexts, moreover, the parent-child relationship is, from the perspective of evolutionary psychology, different from other relationships within the family. “[P]arent and child are genetic relatives with an indissoluble overlap in the expected fitness” or marriage partners. DALY & WILSON, *supra* note 16, at 64. In this context, “fitness” refers to “reproductive success not bodily condition.” See, e.g., MARTIN DALY & MARGO WILSON, *HOMICIDE* 5 (1988).

99. Joan Silk et al., *Chimpanzees are Indifferent to the Welfare of Unrelated Groups Members*, 437 *NATURE* 1357 (2005).

100. DE WAAL, *supra* note 7, ch. 4; Robert Boyd et al., *The Evolution of Altruistic Punishment*, 100 *PROC. NAT'L. ACAD. SCI.* 3531 (2003). Altruistic punishment refers to situations in which an individual or group incurs the costs of punishing a non-cooperating individual even in a one shot interaction. Altruistic cooperation refers to situations in which individuals incur the cost of cooperating with one another in one-shot situations. *Id.* at 3531.

101. See Robert Boyd & Peter J. Richerson, *Culture and the Evolution of the Human Social Instincts*, in *ROOTS OF HUMAN SOCIALITY* (S. Levinson & N. Enfield eds., 2006), available at <http://http://www.sscnet.ucla.edu/anthro/faculty/boyd/WennerGren0305.pdf>.

morality and the law to impose a duty to move the inertial forces that rescue, a species of cooperative altruism, demands.¹⁰²

B. Social Network Analysis

Social Network Analysis (SNA) “is the mapping and measuring of relationships and flows between people, groups, organizations, computers, web sites, and other information/knowledge processing entities.”¹⁰³ SNA thus looks at entities and their connections, rather than individuals, and permits us to conceptualize social structures among others.¹⁰⁴ SNA, therefore, centers on patterns of interaction and the “intuitive notion that these patterns are important features of the lives of the individuals who display them.”¹⁰⁵ Put otherwise, the approach of SNA “focuses on the relations among actors, not individual actors and their attributes.”¹⁰⁶

The family is a well-recognized social network.¹⁰⁷ An examination of the component parts of the social network that begins this article supports our deep intuitions about AvO. The nuclear family—mom, dad, sister and brother—begins with a map whose “nodes,” family members, in this case, are interdependent and reciprocal; together they are the basic unit of reproduction, protection and counsel. The duties of rescue they owe to one another are recognized in both criminal and tort law, and why not? Historically, survival of the interconnected family unit and dependency upon coming to one another’s aid insured reproductive fitness.

As our cultural development has evolved and attenuated the connections within nuclear families—witness the now typical two

102. De Waal summarizes the work of Bernd Heinrich, a biologist who works with ravens, a group whose composition is constantly changing but whose members, nevertheless, share carrion carcasses. DE WAAL, *supra* note 7, at 133–35.

103. Orgnet.com, Social Network Analysis, A Brief Introduction, <http://www.orgnet.com/sna.html> (last visited Sept. 26, 2008).

104. Ulrike Gretzel, Social Network Analysis: Introduction and Resources (2001), available at <http://lrs.ed.uiuc.edu/tse-portal/analysis/social-network-analysis/>.

105. *Id.* (quoting Lin Freeman, http://www.heinz.cmu.edu/project/INSNA/na_inf.html).

106. ROBERT A. HANNEMAN & MARK RIDDLE, INTRODUCTION TO SOCIAL NETWORK METHODS 3, available at <http://www.faculty.ucr.edu/~hanneman/nettext/>.

107. *Id.* at 5.

wage-earner household—some responsibilities among members of the family, which were once held within the family or small community, have been taken over by trusted surrogates. The law and ethics of the doctor-patient relationship, the lawyer-client relationship, the clergy-penitent relationship, and others have formalized the responsibilities once performed within these small communities. Here it is well to recall a point made throughout this work: The basic neuro-architecture from which all our reactions emerge came into existence millions of years ago prior even to small community living. It is not surprising, therefore, that duties once performed by members of the family would be assumed by its trusted surrogates.

C. *The Unsettled Case of Kitty Genovese*

So why did the crowd that watched or listened to a screaming Kitty Genovese as she was bludgeoned to death outside her apartment complex fail to intervene? It should not have been a simple fear for their own safety because an anonymous or feigned identity call to 911 (or its then contemporary counterpart) would have met the fundamental ethical requirement for fulfilling the duty to intervene. Still no one called. Was it the fear of, or simple aversion to, “getting involved?” Was it the feared slippery-slope of helpfulness, as in the Yiddish expression, “No good deed goes unpunished?”¹⁰⁸ Was it the unsupportable belief that *someone else* will come to her aid, known as the bystander effect, according to which the more witnesses to an emergent event, the less likely any witness will take responsibility and intervene?¹⁰⁹ And if these explanations, or excuses, are

108. The expression may have many sources; I have relied on my mother for the source stated in the text.

109. JOHN DARLEY & BIBB LATANE, *THE UNRESPONSIVE BYSTANDER* (1970); John Darley & Bibb Latane, *Bystander Intervention in Emergencies: Diffusion of Responsibility*, 8 J. PERSONALITY & SOC. PSYCHOL. 377 (1968).

essentially correct,¹¹⁰ they too implicate selfishness, at least in a substantial, if not causatively distinct way.

Hume's naturalized view of how humans tend to behave provides an explanation that has empirical corroboration in contemporary neuroscience. In the absence of a legally imposed duty, the strength of our concern for the well-being of others generally dissipates as those others radiate farther away from our lives, from immediate family to distant family to friends to neighbors and so on.¹¹¹ Thus, we impose duties to come to the aid (or refrain from harming by culpable omission) as a function of salient distance, which we measure (generally) in terms of kinship networks and relationships of authority or power that operate interdependently with those units and members thereof. This also accounts, in part, for the irregularity of the sentiments that Smith explained. The nearer we are to the victim of harm, either in a first order kinship relationship or another recognized category that expresses a relationship of trust, power, and authority between individuals, the more likely we are to react to both the harm and the intentions that produce it.¹¹² On this explanation, Kitty Genovese was *just another stranger*, although one who was geographically proximate to a host of potential rescuers. That proximity exacerbates our feeling of moral outrage but it does not fully close the gap between rescuer and unrelated victim.

110. See Daniel B. Yeager, *A Radical Community of Aid: A Rejoinder on Affirmative Duties to Help Strangers*, 71 WASH. U.L. REV. 1, 15–16 (1993).

111. This is not necessarily a utilitarian position; it may also be deontic insofar as it understands that duties trump consequences. Hume measured duties, however, non-categorically; he had no patience with or thoughts about categorical imperatives. Rawls describes this as a failure to have a theory of practical reasoning. RAWLS, *supra* note 86, at 45–46. Perhaps. For a description of Hume's understanding of our natural proclivities, see David Wiggins, *Categorical Requirements: Kant and Hume on the Idea of Duty*, 75 THE MONIST 83, 84 (1991) (noting that Kant also believed that humans "come into the world endowed by their constitution with the strong sentiment of self-love and the weak sentiment of benevolence").

112. See Theodore Blumoff, *Some Thoughts on the Aesthetics of Retribution*, 17 CAN. J.L. & RELIGION 233, 239–43 (2004) (discussing Smith's effort to naturalize harm).

IV. THE FUTURE OF MORALITY AND AVO

The account offered here is mostly descriptive; evolution is not itself a normative process. The Humean conceptions of morality and justice tie into this process by emphasizing our natural fitness tendencies and the artifices needed to overcome these dispositions. Love of self predominates and the virtues of altruism and help for distant, unrelated others are not features of our evolutionary wiring, although they are features of contemporary life.¹¹³ As a culture, too, we tend to forgive or accept and excuse mere forgetfulness, such as Frank's, more readily than we forgive observable "positive" negligence or duty-bound omissions.¹¹⁴

In a Humean world of naturalized morality, intimate and asymmetric relationships that help maintain fitness are associated in networks of trust and experience. Each relationship develops over time with the accretion of the vast stores of learning, dependence, and commitments biological and otherwise that come therefrom. *Control* in stable and secure liberal democratic countries, for better and for worse, sometimes requires compromises with Kantian elements of normativity, which impose certain categorical duties.¹¹⁵ And *trust* and *intimacy*, which define healthy first-order family relationships and generally diminish in valence as they move outward, often only occur with the ongoing experiences that come of parent-child and spousal relationships. Duties, as a characteristic of Humean justice, follow from all the knowledge we gain as a consequence of our experiences, some of which require that we contain our own selfishness.¹¹⁶

113. HUME, TREATISE, *supra* note 3, at 480.

114. See, e.g., Jonathan Haidt & Jonathan Baron, *Social Roles and the Moral Judgement of Acts and Omissions*, 26 EUR. J. SOC. PSYCH. 201, 217 (1996).

115. This, of course, was the subject of Kant's *Groundwork*. KANT'S GROUNDWORK OF THE METAPHYSICS 60 (H. J. Paton, trans., 1873).

116. In the section on *Of Morals* in the Treatise, in which Hume describes the origins of justice, he also describes the natural defects in our uncultivated natures—among which are our "natural temper" and "selfishness"—that are remedied by *artifice*, the "infinite advantages" of helping one another via the justice. HUME, TREATISE *supra* note 3, at 486–89. For an excellent discussion of these sections, see RAWLS, *supra* note 86, at 56–61.

That we limit liability for forgetting to those circumstances in which explicit memory is required may be a natural response to human frailty—that is, to the absence of experiences that, as a matter of fitness, require our ability to remember on a timely fashion. Explicit memory is more likely to be formed in circumstances that make continuous personal demands on us than in circumstances less likely to make such demands: “Old memories are the result of accumulations of synaptic changes in the cortex as a result of multiple reinstatements of the memory.”¹¹⁷ Thus, when we are forced to pay attention to our task, as we are when our job performance or our children’s well-being depends on it, our memory of the events that occur improves.¹¹⁸ In this view, it is reasonable to conclude that Charlie’s failure was more “causal/intentional” than Frank’s; at least Charlie had deeper reasons in terms of both neuro-and moral psychology to remember the switch than did Frank. In this context, negligence seems to serve as a trip-wire because it speaks to a *form* of misconduct from which each of us suffers in common. Oddly then, for all our complaints that Bigan should have helped Yania get out of the trench, almost inexplicably the law has not changed.

CONCLUSION

Our law treats actions and omissions that cause harm differently, routinely imposing liability for the former but not on the latter unless the omission violates a duty. The law takes this position despite the fact that observers routinely find many omissions morally blameworthy. This essay hopes to provide some explanation for this distinction in evolutionary psychology. It thus began by clearing just enough underbrush to reach the fairly unobjectionable conclusion that omissions can be just as effective at causing harm as acts. Thereafter

117. LEDOUX, SYNAPTIC SELF, *supra* note 69, at 107; accord Edelman & Tononi, *supra* note 62, at 95 (noting that memory is a process of “selective matching that occurs between ongoing, distributed neural activity and various signals from the world, the body and the brain,” which results in synaptic alterations).

118. See MICHAEL GAZZANIGA, THE MIND’S PAST 128 (1998).

it addressed the question of why, in light of that fact, legal doctrine is less likely to find liability for preventable harms that result from omissions than from acts. Hume's view of the limits of natural sympathy suggests that imposing a general duty to aid strangers in need does not come to us naturally from within. Evolutionary theory and research in neuroscience provides some support for Hume's conclusion, and for the need to find a status relationship as a condition for imposing a legal duty.