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A matter of chance: the emergence of probability and the rise of public relations

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Abstract

Public relations became modern in the nineteenth century, when it was lifted off its rhetorical foundations by the force of revolutionary ideas in science, mathematics, and philosophy. One of these transformative ideas was probability, a mathematically oriented logic that originated in the seventeenth century, when science itself became modern. In the two centuries leading up to the emergence of a public relations industry in post-Civil War America, probabilistic conjecturing, particularly in Europe, altered the physical sciences and spawned and quantified the social sciences—the antecedents of modern public relations. Bursting into modernity, public relations absorbed probability's relationalistic and pragmatic outlook, if not always its rigorous methodology. This metahistorical essay, which is indebted to a methodology known as the history of ideas, explores the ways that probabilistic reasoning shaped the epistemology of modern public relations. The essay concludes that an explanation for the remarkable pervasiveness of public relations may be found not only in the oft-repeated spread of mass media, but in the way PR expresses and addresses the accidental nature of events and the contingent quality of perception and opinion.

1. Introduction

Every gambler takes a certain risk for an uncertain gain . . . .

–Blaise Pascal

In the middle of the seventeenth century, Blaise Pascal, a philosopher and a mathematician, conceived an ingenious idea. Seeking to persuade a libertine to reform his ways, Pas-

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cal devised a wager on God's existence. Pascal's bet helped to initiate the development of probability, a revolution in reasoning whose effects would do nothing less than transform science and spawn and shape the fledgling social sciences. By the end of the nineteenth century, probabilistic thinking, with a momentous boost from Charles Darwin, was exerting a definitive influence on the burgeoning institution of public relations. The thesis of this metahistorical essay is that modern public has been definitively influenced by the probabilistic worldview.

The terms of Pascal's wager did not lack drama. For in a universe without God, the libertine could continue to sin with impunity. But on the chance, no matter how slim, that God did exist, the consequence of sin would certainly be eternal damnation. If Pascal's libertine calculated the odds prudently, his betting strategy would be clear enough: the prospect of sacrificing the pleasure of sin for the remainder of one's life must surely pale when weighed against the alternative, the eternal torment of hell. The rational calculation of alternatives, Pascal reasoned, would make wagering against God's existence a very foolish bet, even for a libertine; whereas, wagering on God was a chance worth taking:

> . . . no matter how small we make the odds of God's existence, the pay-off is infinite; infinite bliss for the saved and infinite misery for the damned. Under such conditions, Pascal argued that rational self-interest dictates we sacrifice our certain but merely worldly pleasures to the uncertain but infinite prospect of salvation.[1]

Pascal's wager is legendary in the history of philosophy for marking the beginning of probability. Historians of philosophy believe that Pascal was instrumental in pioneering a change in probability from what it had long been—calculations about games of chance—into something far more profound, i.e., a fundamentally new way of reasoning about nature, society, and the human condition. For the historian Ian Hacking, probability operates at the juncture of opinion and statistics:

> Probability has two aspects. It is connected with the degree of belief warranted by evidence, and it is connected with the tendency, displayed by chance devices, to produce stable relative frequencies. Neither of these aspects was self-consciously and deliberately apprehended by any substantial body of thinkers before the time of Pascal.[2]

The philosopher Pascal could hardly be called a public relations practitioner. But he was among the innovators of the epistemological and statistical tool that communicators use to shape opinion. In his letters to the mathematician Fermat, Pascal teased out the earliest known solutions of probability problems in statistical terms which were elaborate, if crude by contemporary standards.[3] Thinking probabilistically and quantitatively represented an enormous change in thinking itself and generated an intellectual watershed that altered the course of history. Over the course of four centuries, probability—and ideas generated by probability, including pragmatism—would revolutionize the physical sciences and foment the social sciences. As it eventually came to be expressed in an increasingly sophisticated language of mathematics, probability would thoroughly revise the theory and practice of biology, medicine, economics, politics, and an epic list of institutions. Among these was public relations.

2. PR's probabilism

Although Edward Bernays and later generations of public relations scholars have noted the influence of social science on public relations, the influence of probability itself has not received scholarly attention. But by the close of the nineteenth century, when the first agencies and departments and counselors of the PR industry emerged, the social sciences had been converted to probability. It was this epistemological legacy that practitioners of Ivy Lee's and Bernays' generation inherited. Public relations entered its modernity baptized by probability.

At the end of the nineteenth century, when the emerging public relations industry was producing its first practitioners, PR men were already probabilists. What that meant in practice is that, like scientists soft and hard, public relations practitioners saw reality and truth as Pascal and Darwin had remade them: not as absolute and fixed, but as relative, shifting, and contingent. While Aristotle's rhetoric could properly be called strategic, it could not properly be called probabilistic in the Pascalian sense.[4] While they were consistent with the goals of persuasion, the Classical rhetorician's strategies were not framed in the method of statistical conjecturing that Pascal innovated. In the eighteenth century, the mathematician Nicholas Bernoulli substantially increased the power of probability by constructing its first limit theorem in *Ars Conjectandi*, published in 1713. Bernoulli's theorem enabled probabilists to address a mathematical problem that would never have presented itself to rhetoricians: to establish precisely "how much success generated what degree of certainty."[5] At the start of the nineteenth century, the astronomer Laplace, who appropriated probability for astronomical calculation, was also conjecturing about the stable frequency of dead letters in the Paris postal system. A new generation of social thinkers was adducing social theories from statistics on crime, mortality, and the average height and weight of citizens. As the nineteenth century began, probability, coupled with statistical methodologies, was rapidly fertilizing the rise of both physical science and sociology.[6]

But even those developments would pale by comparison to a scientific development in the middle of the nineteenth century. With the publication of *Origin of Species* in 1859, Darwin managed to place probability at the very center of scientific method, shattering the approach to scientific method practiced by the most eminent biologists of their era, notably Louis Agassiz.[7] Darwinian probabilism regards species survival as a phenomenon that must be perceived as a matter of relationships and accidents. Darwin's way of doing science brought with it immediate and cosmic implications. Among these was the development of pragmatism, generally regarded as America's most significant contribution to philosophy. Following Darwin and Pascal, the philosophers of pragmatism, including the mathematician Charles Peirce, adopted the radical position that truth and reality are to be judged by the gold standard of usefulness, rather than according to any preexisting categorical absolutes. An idea was judged good if its belief brought benefits. American philosophy had teased pragmatism out of probabilism. This was the intellectual atmosphere breathed by the practitioners of early modern public relations.[8]

The Public Relations Society of America's (P.R.S.A.) official statement defining public relations, with its pragmatic language of relationships, pluralism, and adjustment, establishes probabilism as the official, if unacknowledged, epistemology of public relations.[9] Professionally speaking, the P.R.S.A. conception of public relations is everything that Bernays said it was: an institutionalized mechanism for adjustment and persuasion.[10] If he wasn't the first practi-

tioner to frame the idea of public relations in this way, he was among the earliest. As Grunig suggests, public relations in the nineteenth century had tendencies toward showmanship—PR as an eye-popping theater of promotion, rather than as noble arena of sociopolitical adaptation.[11] Bernays reconceived public relations upward, as an application of social science: PR as social engineering. Bernays' definition of PR is implicitly probabilistic and pragmatic, in that it views public relations as a socially useful mechanism; therein lay PR's ethical justification. In portraying public relations as he did, Bernays was making a case for the institution to be regarded as America's Fifth Estate, just as journalism had carved its niche as the nation's Fourth.

The historiography of public relations has remained essentially unchanged since Bernays published *Crystallizing Public Opinion* in 1923, which he claims to be the first account of the new profession.[12] But neither Bernays' account nor subsequent histories have identified probability as a source of the pervasiveness of public relations in the modern world.

The lion's share of scholarship on public relations has been neither historical nor theoretical. Historical accounts of public relations, when they haven't been anecdotal, have typically relied on the case-study method. Even ambitious historical treatments, such as Cutlip's, have been essentially a series of biographical profiles, where historiography is essentially a repository for narratives and chronology.[13]

Not surprisingly, such a historiograph misses the highly significant and temporally coincidental, impact of probability, which represents a sea change in the epistemological basis of public relations itself. Today, in its vocal, official, pedagogical reliance on statistics, empiricism and rationalism, public relations is firmly probabilistic. The probabilistic nature of modern PR is evident and explicit, as in a recently published textbook, where the authors offer advice about the techniques of persuasion: employ statistics and make good use of surveys and polls. The authors bill these probabilistic stratagems even above the more classically rhetorical evidence of "examples," "testimonials," and "endorsements": People are impressed by statistics. Use of numbers can convey objectivity, size, and importance in a credible way that can influence public opinion.[14]

In its rank ordering of probability as the most potent path to persuasion, today's PR textbooks owe a good deal more to Pascal's descendants than they do to Aristotle's. Whether public relations history is tightly focused or merely myopic is a matter of opinion. Conventional historical scholarship, which has found its way into the field's leading textbooks, stresses the significance of the nineteenth century, particularly the rapidly industrializing and preregulated rowdiness of post-Civil War America. But the conventional attention to the litany of nineteenth century innovations in technology and communications—photography, telephony, muckraking journalism, monopoly capitalism—has tended to slight intellectual innovations. For Newsom, Turk, and Kruckeberg, technological advances account for "the most significant change in the history of PR."[15] Yet, as Menand shows, the Gilded Age was blazing with probabilistic thinking.[16] Darwin's Theory of Random Selection was hardly less inspiring and destabilizing in the nineteenth century than Copernicus' Heliocentric Hypothesis had been in the sixteenth.[17]

While public relations had existed in some form or other well before Aristotle, it was transformed into an essentially modern institution when public relations imbibed the probabilistic spirit of the post-Darwinian nineteenth century. And while this wave was sweeping America, at the turn of the twentieth century, European scientists and mathematicians, such as Sir Francis

Galton (Darwin's cousin) and Karl Pearson, were creating the body of statistical theories and tests that have become probability's universal language.[18] Today, we are all probabilists.

3. Research methodology

Metahistory, or scholarship that makes statements about history, is classified in the methodological historical–rhetorical–critical and humanistic tradition.[19] Another methodological inspiration for this essay is the history of ideas, most notably associated with the philosopher Arthur O. Lovejoy, whose approach to ideas reveals their historical relationships.[20] For the history of probability, I have drawn substantially on the ideas of the historians Ian Hacking and Theodore Porter. For the development of statistical thinking, I am especially indebted to the work of Stephen Stigler. I was led directly to these historians by Louis Menand's recently published history of American ideas.[21]

4. Conventional history

In his preface to *Crystallizing Public Opinion*, Bernays sketches the history of public relations. Bernays' historiography of public relations remains seminal. In essence, it is a progressivist interpretation of evolution, an argument I made in a previous essay about the symmetrical theory of public relations.[22] Darwin wasn't a Darwinian, i.e., he didn't espouse the "social" Darwinian idea of evolution as evolution as a story of progress and reforms. Rather, evolution for Darwin is more a matter of rejecting the theory that creation is the result of a grand idea. Instead, he introduces a strange and indeterminate unfolding of successful accidents that perpetuated survival.[23] Bernays' idea of PR history, now the conventional interpretation in PR textbooks, offers a progressive version of evolution—i.e., the history of public relations as climbing the ladder from rude origins toward professionalism.[24]

Bernays' triumphalist theme is repeated by historically or theoretically minded scholars from Cutlip to Grunig. In his history of public relations from the seventeenth to the twentieth centuries, Cutlip repeats Bernays idea of periodicity and even uses Bernays' language to identify the periods. For Cutlip, as for Bernays, "The term public relations did not generally come into our language until the late 19th century."[25] Like Bernays, Cutlip labels the period 1865–1900 as "the public be damned," the famous motto of the swaggering, late nineteenth century U.S. industrialist Cornelius Vanderbilt.[26]

The period of Cutlip's *Public Relations History: From the Seventeenth to the Twentieth Century*, coincidentally comprises probability's emergence. It is not surprising that Cutlip's history makes no mention of probability. The purpose of his book is to trace the public relations activities of a long succession of American publicists, political campaign managers, and press agents. As it happens, simultaneously in Europe, another history was unfolding, that of probability, which significantly influenced and shaped the history Cultip narrates.

Mass literacy, democracy, photography, rapacious monopolists, and muckraking journalism—all these were in the air at the origins of modern public relations. But as it emerged at the turn of the twentieth century, modern public relations was breathing the spirit of probability.

5. Probability emerges

The emergence of probability—the phrase is Hacking's—suggests the kind of groundbreaking revolutions in human reasoning that Thomas Kuhn famously identifies as shifts in "paradigms," such as the introduction of the Copernican heliocentic universe which replaced the Ptolemaic geocentric universe.[27] The emergence of probabilistic thinking was less an explosion than a gradual unfolding, but probability was no less revolutionary in its innovation of a new model of reasoning. What enabled the development of probabilistic thinking was a major revision of the idea of evidence.[28] In the Middle Ages, evidence and probability were founded upon human authority, quite often Aristotle's. But with the scientific and humanistic awakening of the Renaissance, the idea of evidence began to lose its basis in human authority. What replaced human authority was the authority of nature itself, from which evidence could be derived impersonally—on the basis of methodology, empiricist, and rationalist.

In the seventeenth century, Newton's calculus and Bernoulli's statistical limit theorem ripened the numerical argot of probability into a substantially more sophisticated language of mathematics.[29] It would require another two centuries, however, before probability acquired the advanced theory and now familiar language of correlations, *t* tests, and regression analysis. Nevertheless, in the Enlightenment, probabilistic thinking was already a mighty force. Even in its relatively crude, earlier phases, as what was known as "political arithmetic," probability was already altering the course of fields that lay outside the sciences. Increasingly, in the eighteenth century, statistics on a widening range of societal matters, such as mortality and crime, were collected and manipulated arithmetically. This novel, probabilistic manner of conjecturing about all sorts of social questions represented the first stirrings of social science. From the Enlightenment through the nineteenth century, probability altered the way in which it was possible to think about politics, psychology, economics, education. Climactically, in the middle of the nineteenth century, a probabilistic approach to evolutionary biology shook the rock-solid, categorical absolutism of religion, as well. In 1867, less than a decade after Darwin's *Origin of Species*, the Victorian poet Matthew Arnold published a famous cosmic lament, "Dover Beach," which expressed the spiritual anxiety and despair of his era:

> The Sea of Faith
> Was once, too, at the full, and round earth's shore
> Lay like the folds of a bright girdle furled,
> But now I only hear
> Its melancholy, long, withdrawing roar.[30]

6. Avalanche of numbers

At the end of the nineteenth century, the rapid advance of probabilistic epistemology would be combined with a philosophically based pragmatic and relativistic worldview. These ideas comprised the zeitgeist for modern public relations. In the final decades of the nineteenth century, statistical theory began a period of intense discovery, beginning with the translation

of Darwin's theories into a statistical language by his cousin, Galton, who helped introduce the system known as eugenics.[31] Stigler, a historian of statistics, observes that probability and statistics are, and always were, joined at the hip: "The invention of statistics was the recognition of a distinct and widely applicable set of procedures based on mathematical probability for studying mass phenomena."[32] Probability, as Hacking and others have shown, long preceded the invention of modern mathematical statistics, which acquired its maturity in the period from 1890 to 1930 with the work of Pearson, Spearman, Fisher, and others.[33]

Probability has ancient roots. Pre-Socratic philosophers, including Protagoras and Gorgias, reflected on probabilistically oriented ideas, such as *eikos*, which calculates the nature of "appeals to reasonable expectation."[34] The pre-Socratics wondered as well about the question of determinism—that is, whether the universe was determined or merely a matter of chance. Porter helpfully distinguishes probabilism from indeterminism, the idea that the universe is essentially unpredictable: " 'Indeterminism' may be contrasted with probabilism, which implies simply that our knowledge does not permit perfect prediction . . . ."[35]

Hacking is historically specific about the origins of probability:

> In 1865 Isaac Todhunter published *A History of the Mathematical Theory of Probability from the Time of Pascal to the Time of Laplace*. It remains an authoritative survey of nearly all work between 1654 and 1812. The title is exactly right. There was hardly any history to record before Pascal, while after {the astronomer and mathematician F.} Laplace, probability was so understood that a page-by-page account of published work on the subject became almost impossible.[36]

Pascal's approach to problem-solving launched a revolution in epistemology, which would lead four centuries after his mathematical conjecturing to a new branch of mathematics. In Pascal's notebooks can be seen what one historian aptly calls probability's "double root":

> It emerged at the crux of two important intellectual movements of the seventeenth century: a new pragmatic rationality that abandoned traditional ideals of certainty; and a sustained and remarkably fruitful attempt to apply mathematics to new domains of experience.[37]

Probability combines the abandonment of classical certainties with an appetite for the brave new Renaissance and Enlightenment sciences. It is likely that probability's roots are deeper than Athenian philosophy. Thinking about what happens most of the time and about varying degrees of uncertainty connected with the unreliability of human experience may have begun with the first games of chance, when early man tossed multisided animal bones to discern a sign. But it was Pascal's wager which that the first attempt to quantify the probabilistic conjecturing.[38]

From the beginning of recorded history, as Bernays says in his preface to *Crystallizing*, public opinion was a prize dearly or desperately sought by sovereigns, particularly in predemocratic societies, such as Athens:

> . . . in ancient Sumeria, Babylonia, Syria and Persia in the dawn of civilization even the despotic rulers were aware of their publics. Proclaiming the divinity of kings was a step of the first importance in gaining the worshipful obedience of subjects . . . In Greece . . . the wooing of public opinion played a vital part in the activities of leaders.[39]

If the ancestors of public relations practitioners demanded or cajoled consent, the modern PR man engineered or crystallized it, to borrow Bernays' scientific metaphors. In true probabilistic fashion, Bernays' language suggests that for him opinion and consent are the results of scientific and technological method—chemical precipitates, steel skyscrapers. For Grunig, it is this emphasis on methodologies that probe human and social motivation, which are identifiable as quintessentially Bernaysian. As a result, Grunig views Bernays' approach to public relations as asymmetric—emphasizing method, even over ethics.[40]

Bernays' fierce concern to identify social scientific methods applicable to PR is consistent with the epistemology of science's adherence to methodological rigor and probability's quest not so much to eliminate error but to control and quantify it.[41] The emergence of probability and statistical thinking provided tools enabling the reduction of uncertainty. In a world without absolutes, reducing and fixing uncertainty could be the equivalent of what the pre-scientific world has called certainty. And like the astronomer Laplace and the biologist Darwin, public relations came to regard reality probabilistically, that is, as a matter whose uncertainty could be reduced by rigorous methodology. However, unlike PR practitioners, scientists were far less inclined to achieve the desired result by compromising methodological rigor.

7. Opinion as uncertainty reduction

As the philosopher of science Karl Popper says, in his disagreement with Kant's doctrine of the certainty of innate knowledge:

> "*Innate* knowledge, but not *certain* knowledge. I cannot know, without constantly testing whether I am dreaming or not. We must constantly make sure of reality, by carrying out all possible checks. There is no certain knowledge . . . All that exists is conjectural knowledge."[42]

The probabilistic conjecturing of the physical sciences was imported into the scientific study of society, marking the founding of the social sciences in Europe.

Numbers fascinated the early nineteenth century sociologists. In the decade 1820–1830, newly hatching trends to "social physics" and "political arithmetic" produced "an avalanche of numbers."[43] During the nineteenth century, statistics was rapidly amassing the power to dominate the work of sociologists, biologists, and finally physicists. Probabilistic statistics did not mature until the first decades of the twentieth century, when statistics emerged as an independent branch of mathematics—a tool far beyond the imaginings of Pascal. As for the nineteenth century sociologists:

> Their aim was to extend the reach of exact science into the social and biological domain by analyzing large-scale phenomena quantitatively in terms of the collective behavior of numerous individuals. Those individuals were essentially unknowable, either because they were too small to be seen or because they were exceedingly numerous and diverse. Statistics hence served not just as an adjunct to observation, but as the basis of theory, and the growth of statistical thinking accompanied the rise of several new areas of science during the nineteenth century. Most notable among these were demography and social statistics, statistical mechanics and population genetics.[44]

In no small measure, European political anxieties speeded the spread of the probabilistic gospel. In the decades following the upheavals of the bloody French and Napoleonic Revolutions, nineteenth century social scientists innovated or elaborated the idea that social science might offer a remedy for war, anarchy and crime, depredations which the new sociology conceived as forces analogous to those quantified by physicists. The "social physics" of seminal nineteenth century sociologists, such as Adolphe Quetelet, reframed society as a statistical phenomenon. The most famous and enduring example of Quetelet's probabilism is that fictive, normative, admirable creature he dubbed *l'homme moyen*, the "average man."[45]

Society as the domain of the "average man" and the law of averages seems to have come in equal measures from the fear and the optimism of intellectuals in the wake of violent social upheavals. The first social scientists were seeking, in Porter's phrase, "the laws governing chaos."[46] Not only might social science govern chaos by quantification; error itself could be controlled by calculus. This was an influential theme in the work of the astronomer Laplace, who published a landmark of probabilistic and statistical thinking in the opening years of the nineteenth century.[47]

Social science held out the promise that probability and statistics could harness the violent, forces of the mob and render society safe, governable, and predictable. As the eighteenth century English poet Alexander Pope had seen an affirmation of God in Newton's mechanical universe, the nineteenth century sociologists sought to be the Newtons of social science and discover the mechanisms that govern society. For the Enlightenment, the paradigm-shifting scientific discoveries did not imply the absence of philosophical determinacy but, rather, an affirmation of the intelligence of God and the limitations of human reason. Pope versified the conservative consensus of his era:

> "All Nature is but art, unknown to thee;
> All chance, direction, which thou canst not see;
> All discord, harmony not understood;
> All partial evil, universal good:
> And, spite of pride, in erring reason's spite,
> One truth is clear: whatever IS is RIGHT."[48]

But for a budding generation of paradigm-shifting social scientists who did their work in the early nineteenth century, probability was their Rosetta stone. And at the end of the nineteenth century, public relations would follow suit. As Bernays defined the power of the PR practitioner: "He is proficient in applying scientific social theories and tested techniques in solving many of the problems of society.[49]

In his implicit faith that science has the power to solve social problems, Bernays was not only reflecting his experience as a Jew who had lived through World War I and the Holocaust, but was also echoing the fears and hopes of the nineteenth century social scientists. Ever a realist, Bernays was also in many respects a probabilist.

8. Adaptation as adjustment

Before Darwin, science had been a matter of predetermined absolutes and categorical reasoning. After Darwin, science would become a significantly different endeavor—a curious,

often bizarre concatenation of relationships. The post-Darwinian scientist would portray reality as a whirling mass of contigencies, an indeterminate puzzle of accidents. Before Darwin, the scientist worked back and forth from first principles; after him, the paradigm of science was relational, which refocused scientists on ferreting out relationships, whether causal or correlational. After Darwin and at the dawn of the modern era of public relations, the primary endeavor of science would be to discover the persuasive probability of connections, not affirm the absolute verity of certainties. As it appeared to certain American pragmatist philosophers of the late nineteenth and early twentieth centuries, Darwinism replaced categorical thinking with relational thinking, absolutism with relativism, determinism with indeterminism. In the new world of relational reasoning, the goodness and truth of an idea was to be measured by its practicality, or what William James called its "cash value."[50]

While Darwin is regarded by the historians of probability as the foremost probabilist of the nineteenth century, it is worth noting that he wasn't keen on numbers. Still, historians trace modern statistical thinking to Darwin, whose Theory of Natural Selection has been credited as a major inspiration for the development of a quantitative model of evolution and the transmission of hereditary characteristics.[51]

It was in the glow of this post-Darwinian epistemology that public relations began its modern life as an applied social science. Bernays always regarded the *modus operandi* of the practitioner as a man who discerned the relationships between things. Had America recently passed an amendment emancipating women? All right, then. So women could be persuaded to take up smoking by a famous, emancipatory slogan: "Women—light up your torches of freedom!" For Bernays and his successors, public relations was a boon to democracy not because of its absolute truth; rather, public relations was true inasmuch as its adjustments were useful. Truth, as James said, was an idea that was good to believe.

Not surprisingly, public relations thinking was, like probabilism and pragmatism, relational thinking. Such a view of public relations reflects the spirit, if not the letter, of Charles Peirce, a founder of philosophic pragmatism. For Peirce, a mathematician like Pascal, truth, goodness, and reality were a matter of what he aptly called "the logic of relations."[52]

After Darwin, modern public relations doesn't so much abandon the verities of Aristotle as leaven it with a pragmatically flavored probabilism. For Bernays, public relations defines and even justifies itself as relational and adaptive:

> The study of our culture and of individual behavior and personality is being carried on by social scientists in the United States and Europe. Answers are sought for such questions as why we behave as we do, why behavior changes, whether human nature changes. Studies were made to discover answers to these questions and how they might be used to improve intergroup *adjustments*. Methods were developed for practical application of the new psychology, sociology, anthropology, social psychology and other disciplines. Psychology, social psychology, psychiatry and psychoanalysis furnished many clues. *It began to seem probable that a limited predictability of conduct might be developed through knowledge of motivations*. The social sciences continue to give us the answer to many such important questions. Thirty thousand men and women at universities and foundations are currently trying to find facts about behavior.[53]

Such a worldview, argued the pragmatist James, was predicated on reversing conventional ideas of causality:

> If scientific laws are not absolutely precise, then scientific terminology has to be understood in a new way. Words like "cause" and "effect," "certainty" and "chance," even "hard" and "soft" cannot be understood as naming fixed and discrete entities or properties; they have to be understood as naming points on a curve of possibilities, as guesses or predictions rather than conclusions. Otherwise, scientists are in danger of reifying their concepts—of imputing an unvarying essence to phenomena that are in a continual state of flux.[54]

Chance, randomness, accident, and contingency: these were the revolutionary ideas Peirce recognized in Darwin. They changed everything; they reframed the universe; they pointed to a whole new cosmology. In Menand's account, Peirce tells his friend Chauncey Wright in the summer of 1859 that "if the Theory of Natural Selection by chance variation was correct, there was more spontaneity in the universe than Wright's mechanistic views allowed."[55]

Darwin had remade biology as contingency, the remarkable history of successful adjustments which enable survival. His radical cosmology turns out to have been consistent with the utility of the public relations practitioners, such as Ivy Lee, who counseled unpopular plutocrats on surviving the pitfalls of public opinion.

The fledgling public relations industry drew its philosophy, its techniques and its clients from what Bernays and others identify as the social and economic need to adjust opinions, perceptions, misunderstandings, and behaviors among companies and their constituencies. The business world, as Bernays experienced it, was a field of powerful forces, where everything, it seemed, was always in motion. Such was the nature of the universe, as the pragmatist Peirce saw it. How could truth be fixed when everything was in flux? Menand poses the question this way: "What does it mean to say that a statement is 'true' in a world always susceptible to what Peirce calls 'a certain swerving?' "[56] For Peirce, in such a world, truth was a matter of relations. For Peirce, truth is something bent, a metaphor reminiscent of the curved and relativistic universe that Einstein would make famous, if less than crystal clear to most mortals.

Back on earth, in the practical realm of public relations, where it is axiomatic that perception is reality, truth is axiomatically curved. Modern public relations had little patience with absolutes. PR's modernization echoes Aristotle's *Ars Rhetorica*, which moves beyond Plato's absolute and categorical rejection of rhetoric as sophistry. For Bernays and the Public Relations Society of America, adjustment is simply good bending.

9. Civil law as pragmatism

As old notions of truth and ethics were bent by probability, so was legal theory. In the early twentieth century, American legal theory was influenced by the probabilistic and pragmatic worldview of the jurist Oliver Wendell Holmes. A member of the elite intellectual circle that included the philosophic pragmatists Peirce, James, and Dewey, Holmes made his seminal contribution to the theory of tort law (i.e., civil wrongdoing) by approaching torts from a

pragmatic and probabilistic perspective.[57] When Holmes took up the question of a person's civil liability for a tort, he replaced the old absolutist categories of *guilt* and *fault* with the radically different, morally neutral, vocabulary of *carelessness* and *recklessness*. As Menand shows, Holmes, influenced by his associations with the American pragmatists, bases his new language on a probabilistic theory of liability. Holmes' theory of tort liability reflects the legal standard of what Holmes calls "the reasonable man," an American version of Quetelet's *l'homme moyen*:

> The "reasonable man" knows, because "experience" tells him that a given behavior in a given circumstance—say, taking target practice in a populated area—carries the risk of injuring another person. Of course, any action in any circumstance carries some risk, however remote, of injuring another person; and reasonable people know this. But this knowledge is not what reasonableness consists in. What reasonableness consists in is the knowledge of the greater or lesser *probability* of an injury caused by such and such an action in such and such circumstances. "[E]ven in the domain of knowledge," as Holmes put it, "the law applies its principle of averages."[58]

Holmes' reasonable man, like Pascal's rational libertine, plays the odds. Applying probability to legal theory, Holmes established the standard of liability for a tort on the basis of how the admirably reasonable man could be expected to conjecture and behave. Categorical thinking about good and bad are replaced by probabilistic calculations resulting from social experience, not *a priori* moral absolutes.

Menand explains how pragmatists like Holmes and James regarded the relationship between belief, opinion and reality, a complex equation of continuing interest to public relations:

> Pragmatists think that the mistake most people make about beliefs is to think that a belief is true, or justified, only if it mirrors "the way things really are . . . ." No belief, James thought, is justified by its correspondence to reality, because mirroring reality is not the purpose of having minds.[59]

As Darwin's idea of adaptation was a useful way for public relations to frame its definition as adjustment, James' reconception of causality provides the philosophic underpinning for public relations as a useful social instrument:

> "The reason we believe in causation is that experience shows us it pays to believe in causation. Causation is a cashable belief . . . The whole notion of truth, which naturally and without reflection we assume to mean the simple duplication by the mind of a ready-made and given reality, proves hard to understand clearly," James declared seventeen years later in the lectures on Pragmatism. "[A]ll our thoughts are *instrumental*, and modes of *adaptation* to reality, rather than revelations or gnostic answers to some divinely instituted world-enigma."[60]

10. Conclusion: a probabilistic definition

Adaptation is the *sumum bonum* for the Jamesian pragmatist; and so it is, too, for the modern practitioner of public relations. According to James, ideas are "instruments"—the tools of adjustment. Such is the case in modern public relations, a practice based upon a probabilistc outlook. If public relations isn't the child of probabilism, it is no more distant than a kissing

cousin once removed. Like the idea of probability itself, PR regards the world with two faces: one probabilistic and modern, the other rhetorical and ancient.

It makes sense that Pascal, a devout Catholic as well as a philosopher, should have originated the modern concept of probability, for Pascal makes clear that he recognizes the crucial difference between the value of human knowledge that comes through reason and the divine understanding that comes through emotion. The most famous line in his *Pensees* makes that distinction: "The heart has reasons that reason itself knows not."[61]

Probability signified a historic moment in the human adventure: the abandonment of the philosopher's quest for certainty; what replaced it was the creation of a logical method for reducing uncertainty and quantifying degrees of likelihood. To think probabilistically, thought the pragmatist Peirce, was to approach truth from three angles: that is, probability emphasized relations over absolutes, consequences over causes, and it judged the value of consequences by their practical worth.[62] Nowhere is such a philosophy more evident than in the practice of public relations.

From a contemporary perspective, public relations may be considered probabilistic insofar as it expresses a world increasingly defined by crisis. For despite the understandable emphasis of professional PR counselors and educators on the role of purposive strategy and planning, public relations continues to be popularly defined no less by the accidental and contingent nature of influential events and their consequences for perception and opinion. It is the pervasiveness of the accidental and uncontrollable—and their anxious association with the apocalyptic—that may explain why crisis communication has assumed such a central place in today's public relations.

In light of these realities, public relations may be regarded as the planned or accidental influence of events on perception. The public relations industry has carved for itself a paradoxical, if not vain, role in history: it has become an institution which both illuminates the crisis-drenched imponderability of modern life, while offering a managerial response.

References

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[2] Ian Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas About Probability, Induction and Statistical Inference*, Cambridge University Press, Cambridge, UK, 1984, p. 1. Hacking makes the point that while Pascal didn't originate probability all by himself, his mathematical conjecturings are representative of those mathematicians and philosophers of the mid to late seventeenth century, whose combined efforts are responsible for the creation of probability as a potent epistemological tool.

[3] Ibid, p. 11.

[4] Aristotle, *The Art of Rhetoric*, Penguin Books, London, 2001, p. 74 (H.C. Lawson-Tasncred, Trans.). "Let rhetoric be the power to observe the persuasiveness of which any particular matter admits."

[5] Gigerenzer, et al., op. cit., p, 29; Stephen M. Stigler, *The History of Statistics: The Measurement of Uncertainty Before 1900*, Belknap Press of Harvard University, Cambridge, MA, 1986, p. 65.

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[7] Louis Menand, *The Metaphysical Club: A Story of Ideas in America*, Farrar, Straus and Giroux, New York City, 2001, p. 124.
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[14] Wilcox, et. al., op. cit., p. 190.
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[16] Menand, op. cit., *passim*.
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[18] Ibid, p. 135.
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[20] Arthur O. Lovejoy, *The Great Chain of Being*, Harvard University Press, Cambridge, MA, 1957.
[21] The publications of Hacking, Porter and Menand are cited throughout this essay.
[22] Robert E. Brown, St. Paul a public relations practitioner: a metatheoretical speculation on messianic communication and symmetry, *Public Relations Review* 29 (2003 March), pp. 1–12.
[23] Menand, op. cit., p. 122.
[24] See, for example, Newsom, Turk, Kruckeberg, op. cit., *PR's Origins and Evolution*, pp. 30–69, where the "evolution" of public relations is interpreted as a story of progress and improvement. Such a teleological historiography does not reflect the ideas of Darwin.
[25] Cutlip, op. cit., p. ix.
[26] Bernays, *Crystallizing Public Opinion*, p. xxv; Cutlip, *Public Relations History*, p. 187.
[27] Thomas S. Kuhn, *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago, 1970, p. 10.
[28] Hacking, op. cit., pp. 31–48. "Many modern philosophers claim that probability is a relation between an hypothesis and the evidence for it. This claim, true of false, conceals an explanation as to the late emergence of probability: the relevant concept of evidence did not exist beforehand," p. 31.
[29] Stigler, op. cit., "So large is the set of [the family of] Bernoulli's that chance alone may have made it inevitable that a Bernoulli should be designated father of the quantification theory of uncertainty," p. 63.
[30] Matthew Arnold, Dover Beach, in: Nelson S. Bushnell, Paul M. Fletcher, Warner Taylor (Eds.), *Literary Masters of England*, Rinehart & Company, New York, 1947, p. 1123.
[31] Porter, op. cit., p. 135.
[32] Ibid, p. 3.
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[34] A.D. Long (Ed.), *The Cambridge Companion to Early Greek Philosophy*, Cambridge University Press, New York, 1999, p. 296.
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[39] Bernays, *Crystallizing Public Opinion*, p. vii.
[40] Grunig, Hunt, *Managing Public Relations*, p. 39.
[41] Menand, op. cit., p. 182. "The genius of statistics, as Laplace defined it, was that it did not ignore errors; it quantified them," p. 182.

[42] Karl Popper, *All Life Is Problem Solving*, Routledge, London, 2002, p. 54 (Patrick Camiller, Trans.). Italics are the author's.
[43] Gigerenzer, op. cit., p. 40.
[44] Porter, op. cit., p. xi.
[45] Ibid, p. 52.
[46] Ibid, p 43. The phrase, "the laws that govern chaos," comprises a chapter in Porter's treatise on probabilism.
[47] Ibid, p. 93.
[48] Alexander Pope, An Essay on Man, in: M.H. Abrams, et al. (Eds.), *The Norton Anthology of English Literature*, vol. 1, W.W. Norton, New York City, 1974, pp. 1187–1191. The capitalization is Pope's.
[49] Bernays, *Engineering of Consent*, p. 5.
[50] Menand, op. cit., p. 358.
[51] Porter, op. cit., p. 134.
[52] Menand, op. cit., p. 223.
[53] Bernays, *Engineering of Consent*, pp. 6–7. Italics mine.
[54] Menand, op. cit., p. 222.
[55] Ibid, p. 222.
[56] Ibid, p. 223.
[57] Ibid, p. 344.
[58] Ibid, pp. 345–346. Italics are those of Holmes. The law of averages continues to exert its influence over the theory and management of modern institutions, including the culturally illustrative American sport of baseball. See the journalistic profile article about the statistician of baseball, Bill James, whose namesake and distant family relation was the famous pragmatist philosopher. Ben McGrath, "The Professor of Baseball," *New Yorker*, July 14 and 21, 2003, pp. 38–45.
[59] Menand, op. cit., p. 356.
[60] Menand, op. cit., p. 358. Italics are those of James.
[61] A.J. Krailsheimer (Ed.), *Blaise Pascale: Pensees*, Penguin Books, New York, 1995.
[62] See, *The Probability of Induction*, pp. 174–189, *passim*; also C.S. Peirce, *On the Doctrine of Chances, with Later Reflections*, in: Justus Buchler (Ed.), *Philosophical Writings of Peirce*, Dover, New York, 1940, pp. 157–173, *passim*. "The general problem of probabilities is, from a given state of facts, to determine the probability of a possible fact. This is the same as to inquire how much the given facts are worth, considered as evidence to prove the possible fact. Thus the problem of probability is simply the general problem of logic," p. 157; "... probability is a kind of relative number," p. 164.