GENETIC PRIVACY:
NEW INTRUSION A NEW TORT?

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I. INTRODUCTION

The completion of the Human Genome Project1 has electrified the scientific world. What once was possible only in the domain of the science fiction thriller has reached real world possibility. We stand at the brink of Huxley's Brave New World.2 Already in place is the technical proficiency to discover personal information about individuals by securing and analyzing the tiniest of pieces of biological specimen. An invisible drop of blood, a strand of hair, or even a speck of dandruff can be tested for the presence of specific genes and thereby reveal much personal information about the former host.

Whereas in the past genetics focused on the study of disease, genes may now be analyzed to discover a far broader range of information about the biological make-up. Research will reveal what characteristics result from the presence of specific genes. Gene tests will be administered to determine the presence (or absence) of specific traits, including those ordinarily hidden from view or those which might never manifest. The problem with this powerful breakthrough in scientific research is that the privacy of the individual becomes vulnerable to increased intrusion. An unauthorized snooper will be able to learn personal information about another person that is quite intimate and perhaps embarrassing.3 It is possible that such information

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1. The genetic map has been essentially complete as of June 26, 2000. Tim Friend, Genetic Map is Hailed as 'New Power,' USA TODAY, June 27, 2000, at A1. Celera, a privately-funded corporation, was the first to properly sequence and assemble the approximately three billion base pairs comprising a human DNA molecule. Tim Friend, Genome Mapmakers Raced to Middle Ground, USA TODAY, June 27, 2000, at 10D. See Friend, USA TODAY, June 27, 2000, at 10D, for a good explanation of the process. A genetic map, which indicates the order of genetic markers, simplifies the mapping and cloning of specific genes, thereby enhancing study and permitting direct screening for specific DNA variations. ROBERT SCHLEIF, GENETICS AND MOLECULAR BIOLOGY 306-07 (2d ed. 1993).

2. ALDOUS HUXLEY, BRAVE NEW WORLD & BRAVE NEW WORLD REVISITED (Harper Torchbooks 1965).

3. Genetic information could reveal a "high degree" of personal information. James G. Cavoli, Can the Government Get Into Your Genes?: A Proposed New York Stat-
in the hands of the wrong person could be quite detrimental to that person's welfare.

Therefore, it is important to have a legal structure in place to deter or at least compensate for such intrusion. Since DNA-rich matter is readily accessible to the general public through hair, skin or the residue of other body parts, the development of devices to discover this personal information should be accompanied with the development of our privacy laws. This paper explores the application of the common law tort of intrusion upon seclusion to protect an individual's interests in genetic privacy.

II. GENETIC INFORMATION

The mapping of the human chromosome accomplished by the completion of the Human Genome Project\(^4\) may put a new dimension on the debate over which human characteristics result from genetics and which result from environment.\(^5\) Within this nature/nurture debate, scientists could at one time only presume that certain traits were inherited. Technology will be able to make this information scientifically certain. As scientists link genes to resultant characteristics, others will be able to discover whether targeted individuals possess the identified characteristics by the application of specific tests.

A. HOW IT WORKS

Each somatic cell of the human body contains twenty-three pairs of chromosomes. Chromosomes are the bodies containing tightly coiled deoxyribonucleic acid ("DNA") molecules that direct other subcellular parts to produce the proteins\(^6\) that cause the body to grow five fingers.

\(^4\) The Genome Project was initiated in 1990 to identify the complete set of human genes, to determine the proper sequence of bases comprising human DNA, and to address the resultant ethical, legal, and social issues. Additionally, new technology to explore the human genome was to be developed. U.S. DEPT. OF ENERGY OFFICE OF SCIENCE, OFFICE OF BIOLOGICAL AND ENVIRONMENTAL RESEARCH, HUMAN GENOME PROGRAM, About the Human Genome Project, available at http://www.ornl.gov/hgmis/project/about.html (last visited April 10, 2001).

\(^5\) James Watson, attributed to be the co-discoverer of the double-helix configuration of the DNA molecule, and who later directed the Center for Human Genome Research at the National Institute of Health, believed the scale tipped in favor of genetic control: "our fate is in our genes." Clarisa Long, Introduction, in GENETIC TESTING AND THE USE OF INFORMATION 15 (Clarisa Long ed., 1999).

\(^6\) F. VOGEL & A. G. MOTULSKY, HUMAN GENETICS 123-24 (3d ed. 1997). What proteins are formed depends upon the specific base sequence constituting the protein-specific gene. Proteins are manufactured in accord with the specific arrangement of amino acids. Only twenty amino acids are used for all proteins. Which of the amino acids are used depends upon the bases sequenced on the DNA. These comprise only four: adenine, cytosine, guanine, and thymine. The bases are "read" in triplets at the
on each hand and to locate the eyeballs in the front of the face. The information contained in DNA also directs the formation of the neural chord and the development of every other biological mechanism.\footnote\(7\) What directions are conveyed depends upon the specific arrangement of nucleic acids ordered in pairs along the sugar and phosphate backbone of the DNA molecule.\footnote\(8\) The directions are not transmitted all at one time. Instead, sections of the DNA molecule, or genes, are translated into instructions which result in the occurrence of specified chemical reactions that lead to the organized functioning of the body and the appearance of traits that are coded on the DNA molecule.\footnote\(9\)

As of June, 2000, the complete human genome has been mapped.\footnote\(10\) The significance of this accomplishment is that we now have the complete genetic menu that dictates the presence or absence of inheritable traits. The genetic code captured in the DNA molecule can now be analyzed as a whole for the first time in scientific history.

B. THE EXTENT OF POSSIBLE INTRUSIONS

The framework upon which environment and experience builds is contained in our genes. An indefinable number of traits are determined by the DNA structure. Familiar characteristics include physical traits such as color-blindness,\footnote\(11\) height, and body morphology\footnote\(12\) as well as basic physical attributes such as pigmentation or flexibility.\footnote\(13\) Geneticists claim that genes reveal racial as well as ethnic status.\footnote\(14\)

\footnotesize\textit{ribosomal translation site, and whatever amino acids are associated with the triplet combinations will be utilized in the manufacture of the new protein, in the order coded for by the DNA template. See VOGEL \& MOTULSKY, supra note 6, at 88, 99.}

\footnotesize\textit{7. See KAREN ARMS \& PAMELA S. CAMP, BIOLOGY 117 (1979); Scott Hensley, Celera's Genome Anchors It Atop Industry, THE WALL ST. J., Feb. 13, 2001, at N4.}

\footnotesize\textit{8. ARMS \& CAMP, supra note 7, at 121-22.}

\footnotesize\textit{9. See Jesper L. Andersen, Peter Schjerling \& Bengt Saltin, Muscle, Genes and Athletic Performance, 283 SCI. AM. (Sept. 1, 2000), at 49-51.}

\footnotesize\textit{10. Friend, USA TODAY, June 27, 2000, at A1.}


\footnotesize\textit{12. Adipose tissue is linked to the lipoprotein lipase ("LDL") gene. See Barbara J. Nicklas, Robert E. Ferrell, Ellen M. Rogus, Dora M. Berman, Alice S. Ryan, Karen E. Dennis \& Andrew P. Goldberg, Lipoprotein Lipase Gene Variation is Associated with Adipose Tissue Lipoprotein Lipase Activity, and Lipoprotein Lipid and Glucose Concentrations in Overweight Menopausal Women, 106 HUMAN GENETICS 420, 420-23 (2000).}


There is also evidence that DNA determines, at least in part, intelligence and personality.\textsuperscript{15} While some traits such as skin color are determined by several pairs of genes, others, such as "hitchhiker's thumb" and the ability to digest lactose, are determined by a single pair of genes, one from each matched chromosome.\textsuperscript{16}

Prior research has been focused on curing diseases. Its methodology looked for and found genetic markers for diseases observably linked with heredity, such as Down's syndrome, phenylketonuria ("PKU"), hemophilia, and cystic fibrosis.\textsuperscript{17} The mapping of the human genome now permits a more sophisticated examination of distinct patterns of nucleotide sequences forming individual genes. These can now be examined directly to facilitate the linkage of specific characteristics with specific gene sequences.\textsuperscript{18} In research journals, ads marketing gene sequence information to researchers are early evidence of the acceleration of this new research methodology.\textsuperscript{19} Instead of looking for the gene that contributes to a disease, the gene itself may be

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\item \textsuperscript{15} Miller, 8 Health Matrix at 204 (citing Daniel E. Koshland, Jr. Nature, Nurture and Behavior, 235 Sci. 1445 (1987). Sociobiologists and philosophers of biology debate the existence of a "selfish" gene resulting from the natural selection of genetic alleles that coincided with successful survival strategies. William J. Fitzpatrick, Teleology and the Norms of Nature 296 n.1 (2000). The difference between behavior that is considered "normal" and that which is considered "abnormal" may be the aberration of a single gene. Vogel & Motulsky, supra note 6, at 631.
\item \textsuperscript{16} Richard J. Devine, C.M., Good Care, Painful Choices: Medical Ethics for Ordinary People 126 (2d ed. 2000). The significance of a matched set of chromosomes is that a particular trait coded for in that genotype may never manifest if the trait is recessive. Thus, a genetic test may indicate the presence of the gene, yet the trait that supposedly is the result does not actually appear. Thus, the tester, on the basis of scientific data, has the potential of completely misinterpreting that which was discovered.
\item \textsuperscript{17} Miller, 8 Health Matrix at 187.
\item \textsuperscript{18} See Ken Howard, The Bioinformatics Gold Rush, Sci. Am., July 1, 2000, at 58, 61. Gene samples taken from individuals with osteoporosis were sequenced and compared with the human genome database by SmithKline Beecham scientists. The process reduced to weeks what would previously have taken years, and also accelerated the development and production of gene-specific drug. Howard, Sci. Am., July 1, 2000, at 61.
\item \textsuperscript{19} For example, LifeSeq advertised itself as permitting instant access online to 60,000 unpublished human genes: "Easy and free online access to the world's most powerful and comprehensive human sequence database with 60,000 unpublished genes from Incyte Genomics. Find your gene of interest and accelerate your research by purchasing the gene sequences and clones at a reasonable price." LifeSeq Advertisement, 29 Biotechniques 8 (2000). Ad clip indicates that research will accelerate and will not be limited to disease-related research. Those who pay for gene sequences will naturally desire to recoup their cost by marketing any useful discoveries. Celera Corporation plans to make money by charging fees for analytical and search programs used in conjunction with their genomic databases. Alex Berenson & Nicholas Wade, A Call for Sharing of Research Causes Gene Stocks to Plunge, N.Y. Times, Mar. 15, 2000, A1, C16.
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analyzed. Huge data bases compiled as a result of the Human Genome Project are now made available by the federal government and by companies such as Celera, thereby facilitating speedy discoveries.\textsuperscript{20} This erstwhile sci-fi scenario promises huge money-making possibilities.\textsuperscript{21} Hence the ads and accompanying research.

Once the sequence of a gene is known, it takes little time to develop a reliable test that detects the presence or absence of a specific gene variation.\textsuperscript{22} As associations are made between genes and resultant characteristics, new genetic tests will be developed that are within easy financial access to private individuals.

Initially, tests focused on diagnosis and treatment of diseases. In that context, testing was beneficial to the person tested. Testing performed outside that limited context, however, has already realized a negative societal impact. Particular concern has been expressed regarding the discriminatory effects of genetic testing under circumstances where employers or insurers request testing or acquire knowledge about the results.\textsuperscript{23} As testing falls more and more outside the scope of medical uses,\textsuperscript{24} the potential for genetic intrusion increases. Greater quantities of personal information of a kind not previously knowable becomes available to the class of persons who

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  \item \textsuperscript{21} See Hensley, \textit{Wall St. J.}, Feb. 13, 2001, at N4
  \item \textsuperscript{22} Currently, it is only a matter of months between the time that a genetic mutation is discovered to the time a test has been developed and marketed. Andrews, 35 \textit{Trial}, July 1999, at 26. This is in contrast to the development of new drugs, which is much slower and far more expensive. \textit{Wingerston}, supra note 11, at 60 (1998).
  \item \textsuperscript{23} Christopher M. Keefer, Bridging the Gap Between Life Insurer and Consumer in the Genetic Testing Era: The RF Proposal, 74 \textit{Ind. L.J.} 1375, 1388 (1999). There is also fear that the information learned by an employer, for instance, will result in an employer's limitation of an employee's autonomy. Theresa K. Casserly, Evidentiary and Constitutional Implications of Employee Drug Testing Through Hair Analysis, 45 \textit{Clev. St. L. Rev.} 469, 497 (1997). The discussion regarding discrimination goes beyond the scope of this article.
  \item \textsuperscript{24} See, e.g., Philip E. Ross, The Making of a Gene Machine: Tony White a Transformed a Sad Sack Named Perkin-Elme Into a High-Tech Gene Hunter — and Opened the Way For a Medical Revolution. So What's That Really Worth?, \textit{Forbes}, Feb. 21, 2000, at 98, 101. Celera Corporation, at the time of the article, planned to solicit buccal samples from consumers who, for a monthly charge of perhaps ten dollars would be able to have their DNA sample tested against all the latest tests. Testing was not expected to remain on the disease plane. An example of what a subscriber might be expected to discover: "whether he carries such fun-to-know genes as clock, which tells whether you are a morning person." Ross, \textit{Forbes}, Feb. 21, 2001, at 101. See also \textit{Wingerston}, supra note 11, at 59. Currently, one company is searching for the gene that stimulates hair growth. W. French Anderson, A Cure That May Cost Us Ourselves, \textit{Newsweek}, Jan. 1, 2000, at 74, 76. Is this health related because it may be used to combat the effects of radiation treatment? Or is it merely a cosmetic? See French, \textit{Newsweek}, Jan. 1, 2001, at 76.
\end{itemize}
themselves choose to subject targeted individuals to surreptitious genetic testing for reasons of their own.

The extraction of genetic information through the surreptitious administration of genetic tests can be harmful. When knowledge is procured about personal information related to inborn traits, its revelation may be embarrassing. The harm is compounded by problems of misinterpretation, overemphasis, or distortion.

Information derived by genetic testing may be interpreted to verify the existence of a particular trait when it merely reveals a genetic predisposition or a probability that a characteristic may materialize.\textsuperscript{25} Recessive genes, for example, may harbor information related to heritage or to traits that are masked by the phenotype, which is the manifestation of genes in the person of the subject.\textsuperscript{26} For instance, the subject may carry\textsuperscript{27} a recessive gene for dwarfism. By all appearances, the subject has a normal height despite the presence of a gene variation for dwarfism. What if the gene tested were not so visibly apparent as dwarfism yet operated in a similar recessive trait construct? The grave dangers resulting from intrusive prying or misinterpretation are obvious.\textsuperscript{28}

Uninformed individuals may intensify the harm by placing a greater emphasis on the results of testing than is scientifically reasonable.\textsuperscript{29} Today our culture treats genes in mystic cult fashion: "[t]he
gene has become more than a piece of information; it has become 'a cultural icon, a symbol, almost a magical force.' Therefore, excluding others from probing one's unique genetic make-up is vital to maintaining dignity through privacy. The difficulty of excluding others, however, increases in proportion to the advances in technology and availability of genetic testing.

C. Technology and Ease of Access

The application of advanced technology at multiple levels has improved and accelerated the extraction, analysis, understanding, and testing of genetic matter. Because human tissues are so easily accessible, the latest tests based on newly-discovered information can be applied to invade the genetic privacy of unwitting and unwilling targets. The following exemplifies the developing problems.

Currently existing microscope technology permits the chromosome to be directly observed. Differences of only one base letter in a genetic sequence are detectable when using an atomic imaging microscope. Therefore, minute genetic differences are ascertainable, and chromosomes containing desired sequences can be isolated for further study. Microscope technology examining gene content is aided by computer technology which analyzes the raw material and links genes to specific functions. Thus, computer and microscope technologies combine as powerful gene expression locator tools, thereby greatly in-

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31. The microscope's molecule-sized tip (about 1 nanometer across), makes this possible. Robert F. Service, Getting a Feel for Genetic Variations, 289 Sci. 27 (2000). A nanometer is the equivalent of one billionth of a meter. See Merriam-Webster's Collegiate Dictionary 772 (Frederick C. Mish ed., 10th ed. 1999) (noting the prefix "nano" represents 1,000,000,000th of the unit). Significantly, a single base-letter difference, otherwise known as a SNP, or single-nucleotide polymorphism in a gene sequence, could be responsible for the appearance of a particular trait. Service, 289 Sci. at 28. The scope also performs simultaneous searches for multiple alleles of various genes along the same chromosome. Id. at 27.

32. Thousands of genes can simultaneously be screened from a postage-size grid using DNA microarray technology. Jamal Nasir, Expression profiling in cancer using gene chips, 57 Clinical Genetics 415 (2000). Then, the raw data can be organized using the computer-run self-organizing map ("SOM") algorithm to sort the genes and link them with specific functions. For example, using SOM, a specific gene was able to be linked to treatment success. Joan Stephenson, Lab-on-a-Chip Shows Promise in Defining and Diagnosing Cancers, 282 JAMA 1801 (1999). The SOM data processing methodology was borrowed from the field of finance where it had been used to analyze the stock market. Stephenson, 282 JAMA at 1801.
creasing the type of personal information discoverable through genetic analysis.

This information, initially available only to researchers, quickly will become available to private individuals. Major diagnostic and start-up companies have a major financial incentive to develop and market genetic testing kits and services to the general public. It should become "increasingly quick and inexpensive for third parties to perform genetic testing themselves."3

Until recently, large samples of body tissue were needed for accurate DNA analysis. Significantly, the development of the Polymerase Chain Reaction ("PCR") technology now permits DNA analysis from a minute, DNA-containing, tissue sample. In fact, even imperceptibly small bits of human tissue can be utilized. From such tiny samples, the PCR technology is applied to extract and accurately reproduce the DNA until testable quantities have been produced.

Epithelial tissue lining the inside of the mouth is a prime example of tissue from which DNA may be extracted and examined for genetic content. One need not collect the cells directly through buccal swabbing. Instead, cells may be collected from inert strata upon which

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3. See Malinowski & Blatt, 71 Tul. L. Rev. at 1226-28. The biomedical industry, including physicians, have considerable financial incentive to market tests. Andrews, 35 Trial, July 1999, at 22. Profit motive invites independent companies to market tests not linked with physician services. Id. at 1273. University research may be fueled by financial motives as well. Henry T. Greely, Breaking the Stalemate: A Prospective Regulatory Framework for Unforeseen Research Uses of Human Tissue Samples and Health Information, 34 Wake Forest L. Rev. 737, 757 (1999).

34. Mark A. Rothstein, Genetic Privacy and Confidentiality: Why They Are So Hard to Protect, 26 J.L. Med. & Ethics 198-99 (1998). As an individual's entire genome is expected to be contained on a single disc testing may become easy to accomplish. Wingeron, supra note 11, at 204.

35. Vogel & Motulsky, supra note 6, at 100.

36. Sometimes, human tissue samples that are large enough to provide useful DNA for analysis are not visible to the naked eye. If the presence of tissue, though not seen, is suspected, the application of a chemical reagent will detect its presence. Angelo Della Manna & Shawn Montpetit, M.D., A Novel Approach to Obtaining Reliable PCR Results from Luminol Treated Bloodstains, 45 J. Forensic Sci. 886, 890 (2000).

37. Even when DNA profiling is initially performed for purposes of criminal investigation, there is grave danger of intrusion because genetic information relating to other matters could be extracted. Currently, the focus is on the extraction of health information. In the future, as more is known about what our genes reveal, information unrelated to health, such as intelligence and personality characteristics could be revealed. Michelle Hibbert, DNA Databanks: Law Enforcement's Greatest Surveillance Tool?, 34 Wake Forest L. Rev. 767, 813 (1999). Storing the genetic information on a databank further exacerbates the intrusion problem since it could become coupled with a disclosure problem.

38. Carla Oz & Ashira Zamir, An Evaluation of the Relevance of Routine DNA Typing of Fingernail Clippings for Forensic Casework, 45 J. Forensic Sci. 158, 158-59 (2000) (noting that the source of this DNA on a victim's fingernail could possibly originate from contact with the suspect's blood, saliva, semen, or scratched skin). Testable buccal cells can also be obtained from a "mouthwash" that has been swished in the
they have been left. For example, PCR technology has been used to extract and amplify DNA from buccal cells left on the backs of licked stamps and envelope flaps, and from toothbrushes. In addition, the traces of skin cells left behind when a person’s hand touches something can be utilized. The DNA left behind on handled objects or on another’s hands may be extracted and analyzed for genetic content.

Other tissue samples from which genetic information may be unobtrusively collected include dried blood such as might be left on a mouth and expelled. Stephen A. Wilcox, Kerryn Saunders, Amelia H Osborn, Angela Arnold, Julia Wunderlich, Therese Kelly, Veronica Collins, Leah J Wilcox, R.J. McKinlay Gardner, Maria Kamarinos, Barbara Cone-Wesson, Robert Williamson & Hans-Henrik M. Dah., *High Frequency Hearing Loss Correlated with Mutations in the GJB2 Gene*, 106 HUMAN GENETICS 399, 400 (2000); Wingerter, supra note 11, at 99.

39. Ashira Zamir, Carla Oz & Boris Geller., *Threat Mail and Forensic Science: DNA Profiling from Items of Evidence After Treatment with DFO*, 45 J. FORENSIC SCI. 445 (2000). Samples were derived from saliva or epithelium. Zamir, Oz & Geller, 45 J. FORENSIC SCI. at 446. Today’s technology does not even require the DNA-rich sample to be removed from the inert strata. The paper containing the sample is simply dropped into the buffer to begin the process. Kathryn Sinclair, Ph.D. & Victoria M. McKechnie, Ph.D, *DNA Extraction from Stamps and Envelope Flaps Using QIAamp and QIAshredder*, 45 J. FORENSIC SCI. 229 (2000). In addition, when samples from more than one person is present, it is possible to profile both. Zamir, Oz & Geller, 45 J. FORENSIC SCI. at 446 (2000). Interpreting multiple profiles, while possible, still presents much difficulty. Roland A.H. van Oorschot & Maxwell K. Jones, *DNA Fingerprints from Fingerprints*, 387 Nature 767 (1997).

40. Miwa Tanaka, Ph.D, Takashi Yoshimoto, Hideki Nozwaw, M.D., Kiroyouki Ohtaki, Yoshiki Kato, Keizo Sato, M.D., Toshimichi Yamamoto, Ph.D., Keiji Tamaki, M.D. & Yoshinao Katsumata, *Usefulness of a Toothbrush as a Source of Evidential DNA for Typing*, 45 J. FORENSIC SCI. 674 (2000). Even personal toothbrushes that had not been used for several months yielded DNA samples that were amplified through PCR technology and successfully analyzed. Tanaka, Yoshimoto, Nozwaw, Ohtaki, Kato, Sato, Yamamoto, Tamaki & Katsumata, 45 J. FORENSIC SCI. at 674.

41. van Oorschot & Jones, 387 Nature at 767 (discussing cigarette butts, briefcase handles, pens, locker handle, car key, phone, dishware, and gloves); Ashira Zamir, Elliot Springer & Baruch Glattstein, *Fingerprints and DNA: STR Typing of DNA Extracted from Adhesive Tape after Processing for Fingerprints*, 45 J. FORENSIC SCI. 687, 687-88 (2000). 50ng of DNA was extracted from each fingerprint left on soft vinyl tape. Zamir, Springer & Glattstein, 45 J. FORENSIC SCI. at 687-88. It is significant that only 1ng of DNA is required for analyses using PCR technology. Sinclair & McKechnie, 45 J. FORENSIC SCI. at 230. This demonstrates how easily a DNA sample may surreptitiously be obtained! Since DNA is contained in shed skin, such as left by a fingerprint, then why not simply remove it to form a person's worn clothing such as a sweater?

42. van Oorschot & Jones, 387 Nature at 767. The success of obtaining useful samples from cells left behind by a handshake has been limited. Nevertheless, as technology such as PCR continues to advance, more frequent success is likely, thereby increasing exposure to unavoidable intrusion. Moreover, one could obtain a DNA sample of sufficient quality and quantity simply by causing some fabric to be pressed into the desired palm during the handshake and brushing it against the skin. Unlike hand-to-hand transfer, samples of DNA are readily obtained when palms of subjects are swabbed directly. Additionally, useful DNA samples are obtained from "secondary transfers." Experiments show that DNA transfers from subject A to the object touched, and then to the palm of subject B, who touched the same object. Subject A's DNA, then, contained in minute quantities of epithelial cells, can be extracted from subject B's hand. *Id.*
discarded bandage or facial tissue, fingernail clippings,\textsuperscript{43} some hair samples,\textsuperscript{44} and even dandruff.\textsuperscript{45} It is easy to see how a tiny but usable sample could be found in clothing,\textsuperscript{46} office space, changing rooms, waiting rooms, the trash, a hairbrush, and many other objects and places.\textsuperscript{47}

The genetic privacy of anyone leaving the safety of his or her home is vulnerable to genetic intrusion simply because one is unable to prevent the occurrence of the natural biological processes that detach cells from the body. Thus, genetic samples may be unobtrusively collected while the subject not only is unaware of the collection, but also is unable to prevent it.\textsuperscript{48} The circumstances presenting problems of genetic intrusion may be compounded by the fact that the DNA-rich tissue need not even be fresh for useful genetic information to be obtained.\textsuperscript{49} Tissues surreptitiously obtained may be stored for later and repeated testing as technology improves and scientific knowledge ex-

\textsuperscript{43} See Oz & Zamir, 45 J. Forensic Sci. at 158-59.

\textsuperscript{44} Deborah Pergament, It's Not Just Hair: Historical and Cultural Considerations for an Emerging Technology, 75 Chi.-Kent L. Rev. 41 (1999) (a single hair provides genetic information about the family as well as the subject). Hair samples would most likely have to have been forcefully removed. Complete DNA profiles generally require nuclear DNA not typically found in hairs naturally shed. Charles A. Linch, Stephanie L. Smith & Joseph A. Prahow, Evaluation of the Human Hair Root for DNA Typing Subsequent to Microscopic Comparison, 43 J. Forensic Sci. 305, 308-12 (1998). Shed hairs, on the other hand, contain only mitochondrial DNA, which is still experimental, and has so far provided only limited information, such as maternal lineage. Marie Allen, Ann-Sofie Engström, Sonya Meyers, Olivia Handt, Tom Saldeen, M.D., Ph.D, Arndt von Haeseler, Ph.D, Svante Pääbo, Ph.D & Ulf Gyllensten, Ph.D., Mitochondrial DNA Sequencing of Shed Hairs and Saliva on Robbery Caps: Sensitivity and Matching Probabilities, 43 J. Forensic Sci. 453, 453-56, 461-62. The forceful removal of hairs could be accomplished by the application of some adhesive such as chewing gum or a waxing strip, or by requirement, such under the rubric of a hair based drug test during employment such as radioimmunoassay of hair (“RIAH”). Casserly, 45 Cleve. St. L. Rev. at 470.

\textsuperscript{45} The average DNA content in a single dandruff speck is only 4.7 ng., yet of sufficient size for analysis. Birgit Herber, Ph.D & Kurt Herold, Ph.D, DNA Typing of Human Dandruff, 43 J. Forensic Sci. 648, 650-53, 655 (1998).

\textsuperscript{46} Herber & Herold, 43 J. Forensic Sci. at 655 (noting that dandruff can occur on a number of substrates, such as headgear, including helmets and masks, outer clothing, and other fabrics).

\textsuperscript{47} Sofas, for example make good collection substrates. See Herber & Herold, 43 J. Forensic Sci. at 655. Although contamination with DNA from other users of the furniture could be problematic, one can see that a third person who desires a sample could assure procuring an untainted sample by providing a fresh fabric coverlet before the tagged subject appears.

\textsuperscript{48} Vulnerability to intrusions could also occur absent enforcement of safeguards when tissue samples previously taken, such as for a particular test, have been stored and retested for something else. See Greely, 34 Wake Forest L. Rev. at 737. Greely suggested a framework that will protect a subject's interests and improve participation in future biomedical research. Id. at 752-58.

\textsuperscript{49} Herber & Herold, 43 J. Forensic Sci. at 654; Tanaka, Yoshimoto, Nozawa, M.D., Ohtaki, Kato, B.D.S, Sato, M. D., Yamamoto, Ph.D, Tamaki, M.D. & Katsumata, M.D, 45 J. Forensic Sci. 674 n.2 (noting that such sources include a sixteen year old
pands. Technology thereby decimates privacy by eliminating one's control over it. The time is ripe for a serious consideration of how our common law system of tort law may be applied to protect against these intrusions.

III. LAWS TO PROTECT PRIVACY

A. THE INADEQUACY OF STATUTORY PROTECTION

Federal legislators have recognized the necessity for privacy protection for quite some time, as evidenced by attempts to pass genetic privacy legislation as early as 1991. However, commentators worry that current statutory safeguards are inadequate to protect privacy. Moreover, the following brief review will demonstrate that legislative provisions currently in place are primarily directed toward preventing discriminatory uses of genetic information and inadequately protect against the collection and examination of DNA-containing data by private individuals.

The Privacy Act of 1974 seeks to protect privacy generally; it does not specifically provide for the protection of genetic privacy. Genetic privacy could nevertheless fall within the purview of the Act if the provisions had broader application. Only government employees fall within its protective wings, however, and then only to protect

skeleton and twelve month old toothbrush); Sinclair, Ph.D & McKechnie, Ph.D, 45 J. Forensic Sci. at 230.


against disclosure of confidential information already known.\textsuperscript{55} The Act affords no protection from the capture of data by private individuals for genetic analysis.

The Americans with Disabilities Act of 1990 ("ADA")\textsuperscript{56} could also theoretically provide statutory protection for genetic privacy. However, the Act is limited to preventing discrimination based on disabilities.\textsuperscript{57} Therefore, at least two elements must be satisfied: discrimination and disability. Claims for privacy intrusions do not have to coincide with claims of discrimination. Moreover, mere genetic predisposition does not appear to satisfy the statutory definition of "disability."\textsuperscript{58} Finally, the Act refers to discriminatory behavior concerning information already learned.\textsuperscript{59} The Act does not at all address genetic privacy related to the collecting of data.

\textsuperscript{55} Kristie A. Deyerle, \textit{Genetic Testing in the Workplace: Employer Dream, Employee Nightmare — Legislative Regulation in the United States and the Federal Republic of Germany}, 18 \textit{Comp. Lab. L.J.} 547, 563-64 (1997). The Act is ineffective even with respect to preventing the dissemination of any genetic information amassed by an agency because of the multiple exceptions that would permit disclosure to occur. Deyerle, 19 \textit{Comp. Lab. L.J.} at 564. See also Gill, 44 \textit{Naval. L. Rev.} at 221. Congress recognized that "the privacy of an individual is directly affected by the collection, maintenance, use, and dissemination of personal information by Federal agencies." The Privacy Act of 1974, Pub. L. No. 93-579, § 2 (1974). Moreover, Congress recognized that "the right to privacy is a personal and fundamental right protected by the Constitution." The Privacy Act of 1974, § 2. However, the protection granted individuals was directed only at federal agencies and provided for limited agency safeguards. \textit{Id.}


\textsuperscript{57} 42 U.S.C. § 12101(b).

\textsuperscript{58} Keith R. Fentonmiller & Herbert Semmel, \textit{Where Age and Disability Discrimination Intersect: An Overview of the ADA for the ADEA Practitioner}, 10 \textit{Geo. Mason U. Civ. Rts. L.J.} 227, 251-52 (2000). The authors believe that the ADA is unlikely to have any impact on preventing genetic discrimination. In support, the authors point to two Supreme Court cases and proposed legislation, suggesting that current statutory protection does not exist. Fentonmiller & Semmel, 10 \textit{Geo. Mason U. Civ. Rts. L.J.} at 252. In \textit{Bragdon v. Abbott}, 524 U.S. 624 (1998), asymptomatic HIV infection was held to be a statutory disability. Chief Justice William H. Rehnquist, joined by Justices Antonin Scalia and Clarence Thomas, remained unpersuaded by the argument that an HIV infection limited a person's ability to reproduce based on a diminished life expectancy. To so conclude "would render every individual with a genetic marker for some debilitating disease 'disabled' here and now because of some possible future effects." \textit{Bragdon}, 524 U.S. at 661 (Rehnquist, C.J., concurring in the judgment in part and dissenting in part).

It is apparent that at least those justices would not find genetic markers within the umbrella of an ADA disability. \textit{United Airlines v. Sutton}, 527 U.S. 471, 482 (1999), makes it clearer that genetic markers would not fall within the statutory definition of "disability," at least insofar as related to a predisposition. Thus, the ADA would provide incomplete to no privacy in matters of genetic privacy. \textit{See also} Rothstein, 22 \textit{U. Ark. Little Rock L. Rev.} at 155-56.

\textsuperscript{59} \textit{See} Fentonmiller & Semmel, 10 \textit{Geo. Mason U. Civ. Rts. L.J.} at 255 (2000) (noting an individual must be "qualified" as having a disability to trigger the Act. Therefore, any disability stemming from a genetic marker must already have been determined). Moreover, the ADA permits employers to order genetic testing without specific permission, even of mere potential employees, provided that no discriminatory
One might be tempted to look to the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") and the proposed Health and Human Services ("HHS") regulations that were designed to preserve the privacy of health information, especially in light of its specific reference to genetic information. However, HIPAA is focused on discriminatory problems related to employment issues and the improper use of genetic information by commercial or employer based group health insurance companies. The Act mandates portability of health insurance when switching jobs, despite the presence of a pre-existing health condition.

Part of the overall scheme of Congress in enacting this law was to improve the Medicare and Medicaid programs and to increase efficiency as a result. Angela Liang, The Argument Against a Physician's Duty to Warn for Genetic Diseases: The Conflicts Created by Safer v. Estate of Pack, 1 J. HEALTH CARE L. & POL'Y 437, 450 (1998).


63. Id. It is important to note that the statute (and regulations) do not have universal application. As the purpose was to prevent discrimination regarding the portability of health insurance, it applies only to health plans, health care clearinghouses, and health care providers. 42 U.S.C. § 1320d-1 (1994).

64. See DOE Office of Biological and Environmental Research, Human Genome Program, Genetics Privacy and Legislation, at http://www.ornl.gov/hgmis/elsi/legislat.html (last visited July 26, 2000). Moreover, HIPAA did not apply to life or disability insurance. Liang, 1 J. HEALTH CARE L. & POL'Y at 450.

ciency by standardizing the electronic transmission of health information within the health care industry.\textsuperscript{66} In apparent recognition of privacy issues regarding the increased exposure to dissemination and abuse of medical information because of the inter-health care company ease of electronic transmission, Congress also provided for privacy safeguards of certain health information.\textsuperscript{67} The key to understanding the inadequacy of this important legislative enactment is that it applies only to medical records that are either transmitted or maintained electronically.\textsuperscript{68} Thus, the Act does not have universal application.\textsuperscript{69}

State legislative efforts as a whole are also ineffective at protecting against genetic intrusions. Legislation differs among jurisdictions, with few providing broad protection against invasions.\textsuperscript{70} As in many other areas where statutory protections are inadequate to guard

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\textsuperscript{70} French, 5 ELDER L.J. at 171; Jensen, 21 SEATTLE U. L. REV. at 372. Only some states, such as Florida, offer broad protections. In Florida, for instance, genetic intrusions could be prevented by application of the law: "DNA analysis may be performed only with the informed consent of the person tested." FLA. STAT. § 760.40(2)(a) (West 1997 & Supp. 2001). However, the effectiveness of even such a broadly worded statute is indeterminate. The discretionary application of what could be considered a very light penalty leads one to believe that the statute will have only limited effect. Violation of the statute constitutes a first degree misdemeanor with penalties of imprisonment of up
against a perceived harm, the viability of common law actions for intrusions upon genetic privacy is critical.

B. THE COMMON LAW RIGHT OF PRIVACY

Most legal commentators agree that a right of privacy exists in the common law. What privacy means, however, eludes common agreement on a definition. Ancient philosophers as well as the drafters of our Constitution were concerned with governmental interference. Today, governmental interference is still an issue. There is grave concern that genetic privacy may be invaded in a number of governmental contexts. For instance, military personnel and those who have been arrested may be targets of governmental intrusions. Branches of the government have easy access to genetic data whenever testing of DNA-rich tissue (such as blood) is permissible. The tissue samples used for such testing may have been stored rather than discarded. Future testing of those previously collected samples is thereby not eliminated. Such issues regarding potential abuses of governmental powers involves a definition of privacy as it relates to Constitutional analysis. The focus of this paper, by contrast, relates to the definition of privacy that applies to invasions by private third parties apart from government.

Narrowing a definition of privacy to correlate with private party intrusions only partially confines its boundaries. The concept remains

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73. Hardwick, 14 NOTRE DAME J.L. ETHICS & PUB. POL'Y at 673. Some believe that "as against the Government, the right to be let alone [is] the most comprehensive of rights and the right most valued by civilized men." Honorable Major B. Harding, Mark J. Criser & Michael R. Ufferman, Right To Be Let Alone? — Has the Adoption of Article I, Section 23 in the Florida Constitution, Which Explicitly Provides For a State Right of Privacy, Resulted in Greater Privacy Protection for Florida Citizens?, 14 NOTRE DAME J.L. ETHICS & PUB. POL'Y 945, 946 (2000).


75. Turkington, 10 N. ILL. U. L. REV. at 490.

76. Hardwick, 14 NOTRE DAME J.L. ETHICS & PUB. POL'Y at 673. Modern life presents its own opportunities for intrusions by private parties because of the availability of sophisticated technology. Id. The danger of private party invasion is real. Not only are tests predicted to be developed and marketed directly to consumers, tissue storage companies have no apparent regulation preventing it. Id.
elusive because it slides between different theories of protection. The right of privacy appears to protect a property interest insofar as it focuses on a definitive object that an aggrieved person would consider personal and private. To the extent that the right of privacy focuses on dignitary insult, it appears to protect a personal interest. When a dignitary insult results from an incursion on property with no compensable injury, such as in trespass to land with no recognizable damage to the land itself, the underlying theories of property and dignitary tort combine. To understand this two-prong approach to the definition of privacy and its effect on the inclusion of genetic intrusion within the ambit of protection, we begin with an overview of the historical development of privacy protection in tort law.

IV. PROTECTION OF PRIVACY IN TORT

A. EARLY CASES

The earliest privacy cases granted relief for invasions of privacy without judicial recognition of a separate tort theory for privacy. They premised relief upon some type of physical trespass. It was not until the late 1800s that a remedy for privacy intrusion was granted on the basis of a separately identifiable privacy tort. The emergent industrialization, the simultaneous increase in the processing and dissemination of information, and the decreasing ability of an individual to control or guard against the flow of personal information may have been responsible for this new development in the law.

The origin of a separate species of tort law regarding privacy is widely attributable to Judge Cooley. In his treatise on torts, Cooley proposed that the protection against legal wrong in general was placed in the hands of judges who, as representatives of the State, granted remedies for invasions or deprivations of rights. With respect to privacy, the specific right articulated by Cooley was the “right


78. WESTIN, supra note 29, at 333; William L. Prosser, Privacy, 48 CAL. L. REV. 383, 389-90 (1960) (stating that such intrusions include intrusions of the home or hotel room; searching a shopping bag).


81. See, e.g., Hardwick, 14 NOTRE DAME J.L. ETHICS & PUB. POL’Y at 674-75; Harding, Criser & Ufferman, 14 NOTRE DAME J.L. ETHICS & PUB. POL’Y at 946.

82. THOMAS M. COOLEY, A TREATISE ON THE LAW OF TORTS OR THE WRONGS WHICH ARISE INDEPENDENT OF CONTRACT 1-7, 20 (2d ed. 1888).
to one's person." 83 Cooley suggested that the personal right was that of "complete immunity" 84 "from attacks and injuries." 85 This he characterized as the right "to be let alone." 86 Having defined the right, a remedy in tort was a necessary consequence. 87

Not long after Cooley's treatise was published, Samuel Warren and Louis Brandeis published an article that popularized the concept that the law affords privacy protection in tort. 88 In their famous article, The Right to Privacy, 89 Warren and Brandeis identified two major threats to privacy: the press and "modern technology." 90 The inspiration for their article purportedly stemmed from the publication of gossipy facts about a family wedding. 91 The authors viewed mechanical devices such as high speed cameras which no longer required its subjects to remain still for a posed photo as leaving people vulnerable to violations of the "personality." 92 Later commentators shared the view that an insult to dignity necessitated a remedy in tort to vindicate the attack on the inner self. 93

State courts did not immediately embrace tort actions in privacy to remedy wrongful invasions not fitting within the then existing legal

83. Cooley, supra note 82, at 29.
84. Id.
85. Id. at 24.
86. Id. at 29. Others have picked up on the idea that one is entitled to be "let alone" in one's everyday life and have more frequently used those words to explain the right rather than the principle right upon which it is based, which is the right to one's person. See, e.g., Harding, Criser & Ufferman, 14 Notre Dame J.L. Ethics & Pub. Pol'y at 946 (providing that Cooley "coined the phrase"); W. Page Keeton, Dan B. Dobbs, Robert E. Keeton & David G. Owen, Prosser & Keeton on the Law of Torts 849 (5th ed. 1984).
87. Cooley, supra note 82, at 47.
89. Warren & Brandeis, 4 Harv. L. Rev. at 193.
91. Nathan E. Ray, Let There Be False Light: Resisting the Growing Trend Against an Important Tort, 84 Minn. L. Rev. 713, 716-17 (2000) (disputing that the Warren/Brandeis article was in response to the crashing of Warren's daughter's wedding by journalists. The author suggested that the daughter was only six years old at the time of the purported incident). An alternative rational could be that time was ripe for a remedy in tort, given society's moral view. Turkington, 10 N. Ill. U. L. Rev. at 483 (1990).
92. Warren & Brandeis, 4 Harv. L. Rev. at 211.
93. Halpern, 11 Santa Clara Computer & High Tech L.J. at 56-57. But see infra Part IV B discussion concerning the property/dignity debate regarding the core of the right to privacy.
The common law right to privacy was not recognized until several years later in Georgia in *Pavesich v. New England Life Ins.* Thereafter, judicial recognition became widespread; today almost all jurisdictions recognize the privacy tort as part of the common law. Only a few jurisdictions came to recognize the tort solely through legislation.

Dean Prosser traced the development of the tort of privacy by evaluating more than three hundred cases decided after Warren and Brandeis's article and concluded that four separate privacy interests had emerged, linked only by a common right "to be let alone." The privacy invasions were categorized as the

1. Intrusion upon the plaintiff's seclusion or solitude, or into his private affairs.
2. Public disclosure of embarrassing private facts about the plaintiff.
3. Publicity which places the plaintiff in a false light in the public eye.
4. Appropriation, for the defendant's advantage, of the plaintiff's name or likeness.

The classification of the privacy tort as four separate sub-torts continues to be recognized as such in the treatises and in the literature, still premised upon the original theory that people living in society have some right to be let alone. The separation of a privacy tort

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100. Prosser, 48 CAL. L. REV. at 389.

101. DAN B. DOBBS, THE LAW OF TORTS 1198 (2001); KEETON, DOBBS, KEETON & OWEN, supra note 86, 851-63. See, e.g., McClurg, 73 N.C. L. REV. at 992-95. See also
into four separate categories evidences the divergent senses of the tort itself. The first category, intrusion upon seclusion, represents a person's right to be free from "unwanted observation or collection of information." The remaining three categories do not address initial observations, but the further dissemination of previously learned information. The former appears to align more closely with dignitary insult; the latter, property-like alienation issues.

The subject matter of this article relates to the protection of genetic privacy against third parties who surreptitiously collect and subject human tissue to genetic testing. The focus is on the act of intrusion and not on any subsequent disclosure, publicity, or appropriation of likeness. Of the four tort privacy categories, intrusion upon seclusion best applies.

B. INTRUSION UPON SECLUSION: BASIS OF THE TORT

The intrusion upon seclusion tort satisfies an important function of filling the gaps to remedy justifiable claims that would otherwise be legally unprotected. It should come as no surprise, therefore, that intrusion claims are not uniform in appearance. Interference with privacy under the intrusion tort can be conceived in terms of physical, spatial, or psychological disturbances.

The legal right to be free from intrusions in terms of physical space is the most obvious form of intrusion and is clearly expressed in the English axiom: "A man's home is his castle." One contemplates "home" as a physical space where one can expect to be free from un-


103. Engelhardt, Jr., supra note 102, at 123. The author states that there are three political groupings of privacy: the two already discussed (freedom from intrusion and freedom from further dissemination of learned information). The third group concerns privacy in the constitutional sense: freedom from governmental interference. Id.

104. The appropriation category comprises cases wherein a plaintiff's name, photograph, voice, or other likeness has been utilized for the defendant's commercial benefit. Jeffrey Malkan, Stolen Photographs: Personality, Publicity, and Privacy, 75 Tex. L. Rev. 779, 811 (1997). Contrary to genetic privacy issues discussed in this article, the likeness was itself already before the view of the public.


wanted access by others. The protection against eavesdroppers clearly falls within this concept of privacy.

Early writers have associated the acceptance of a physical space barrier with a right to maintain exclusive control over information about oneself. Limiting access to another's home was simply a workable means of protecting the right. One had this right because one's person was deemed "sacred" and "inviolable." 107 Some consider the inviolate "right to one's person" as the foundational norm regarding privacy. 108 The "inviolability" of self tied in with Cooley's originating theory that privacy protected the "right to be let alone" and that of other legal philosophers such as Bloustein who concluded that the right to privacy was primarily a dignitary right 109 worthy of vindication rather than compensation when it had been violated. 110

At a time when technology was unsophisticated and unlikely to probe the inner sanctum of one's being, this notion of privacy could be legally protected by limiting physical access to another person, as by exclusion from the home. 111 Limiting physical access to a person by granting a tort remedy for such invasions of privacy protected directly what actions for trespass and burglary had protected indirectly, 112 and it was enough of an analogy to become an acceptable basis for privacy protection. However, as technology improved, one's privacy could no longer be protected merely by a physical barrier. 113 One's solitude and private affairs and concerns 114 began to be in-

107. See McClain, 7 YALE J.L. & HUMAN. at 202. The concept of inviolability is consistent with the view that once that level has been reached, there is nothing left to reveal. The inner self has been reached. See Malkan, 75 Tex. L. Rev. at 800.

108. McClain, 7 YALE J.L. & HUMAN. at 201-02. Even though the right to one's person suggests self-ownership, ergo property theory as a basis for the right, the idea of commodification of self that would follow from acceptance of a property underpinning directly conflicts with the "sacredness" of body that appears to be a basis for a dignitary rights theory. See id. at 200.


110. Stokes, Stokes, Lee, Pomeroj, Burger, Rubin, Rubin, Cromwell, Dollard, Kempin & Webb, 75 N.Y.U. L. Rev. at 1537. The "social vindication" has been noted as reflecting a "spiritual" rather than "material" value. Id. (referring to Bloustein).

111. Activity within homes, such as family activity, is entitled to the greatest protection, consistent with expectations. Erwin Chemerinsky, Protecting Privacy From New Technologies: The California Privacy Protection Act of 1998, 26 Hum. RTS., Fall 1999, at 13-14.


113. Van Den Haag, supra note 112, at 150.

114. The explanation of what privacy is protected under the "intrusion upon seclusion" category is the "solitude or seclusion of another or his private affairs or concerns." RESTATEMENT (SECOND) OF TORTS § 652B (1977). Seclusion once adequately described privacy protection because physical seclusion and freedom from other's intrusion were synonymous, contrary to today's technological world, and particularly regarding computer technologies. See Reilly, 6 RICH. J.L. & TECH. at 7-9.
vaded by non-physical intrusions involving the use of advanced technology.\textsuperscript{115}

Despite the non-physical nature of the intrusion, the intrusion into the space of another was still considered an intrusion on privacy.\textsuperscript{116} Prohibitions against eavesdropping\textsuperscript{117} expanded to include technology-enhanced listening devices such as wiretaps and microphones.\textsuperscript{118} The “peeping Tom” of yesteryear had become a sophisticated user of devices that made voyerism hi-tech and virtually undetectable.\textsuperscript{119} Such intrusions fell under the general category of “sensory intrusions,”\textsuperscript{120} “virtual trespass,”\textsuperscript{121} or “spying” on another.\textsuperscript{122} In the same way that physical intrusions into space were conceived as an invasion of a property interest, non-physical intrusions were likewise considered an invasion of a property interest.\textsuperscript{123} One could draw the analogy for each to the torts of trespass and nuisance respectively.

Beyond intrusion into the space of another, whether physical or non-physical, there also appeared the invasion of “psychological soli-
tude."124 This tort included prying into another’s personal affairs through investigation or examination.125 This could be construed as “informational intrusion.”126 It also included harassment,127 including sexual harassment,128 and relentless phone calls.129 In this respect the right to be let alone appeared to include emotional integrity at the heart of the privacy interest to be protected.130

Intrusion upon seclusion thus included several forms of intrusion: spatial intrusion, harassment, spying, and prying.131 These forms of intrusion share a unifying feature. They interfere in some way with the qualified right to be let alone first expressed by Thomas Cooley. The basis of this right might rest on property, particularly in the case of a privacy invasion by spatial intrusion. As the context of protected privacy expanded, however, the argument became more difficult to

124. David A. Elder, Rhode Island and Privacy Law — An Overview and Some Important Recent Developments, 31 SUFFOLK U. L. REV. 837, 842 (1998). The Restatement (Second) of Torts definition of privacy violations involving intrusions upon one’s seclusion encompasses such non-physical intrusions. Elder, 31 SUFFOLK U. L. REV. at 842. Thus, as the Restatement is nothing more than a compilation of the common law, the privacy protection encompasses the legal right to be free from psychological intrusions.

125. Prosser, 48 CAL. L. REV. at 390 (e.g., into bank account, into business affairs via a blanket subpoena duces tecum, into personal affairs via blood testing); KEETON, DOBBS, KEETON & OWENS, supra note 86, at 854-55 (5th ed. 1984); Hilliard, 30 LOY. U. Chi. L. J at 610 (e.g., opening personal mail, searching personal effects or documents). See also RESTATEMENT (SECOND) OF TORTS § 652B cmt. b (1977). An invasion of privacy can be based on a psychological intrusion such as through questions by one in authority which are highly personal. KEETON, DOBBS, KEETON & OWENS, supra note 86, at 121. Modern inventions, the most challenging now in internet communications, and pop culture debasing human dignity pose special problems for privacy protection and reflect a position that appears at odds with granting legal protection against invasions of privacy when intrusions merely satisfy prurient curiosity. Dorothy Glancy, At the Intersection of Visible and Invisible Worlds: United States Privacy Law and the Internet, 16 SANTA CLARA COMPUTER & HIGH TECH. L.J. 357, 381-82 (2000). However, most statistics indicate that society as a whole desires increased protection against privacy invasions.


127. Sharon Madere, Paparazzi Legislation: Policy Arguments and Legal Analysis in Support of Their Constitutionality, 46 UCLA L. Rev. 1633, 1666 (1999). Harassment as giving rise to a claim of intrusion upon seclusion is viable despite the fact that one’s solitude has been disturbed in a public, not private, location. Madere, 46 UCLA L. Rev. at 1666.


130. See Bernstein, 142 U. PA. L. REV. at 1248.

support. Controlling or preventing access to information about oneself became the later-understood context.132

Recognizing that one has the right to control what personal information is to be shared or to remain private appears to protect an inalienable human attribute associated with voluntary intimacy more than a severable property interest.134 Under traditional rules, one cannot own information.135 Thus, control over the information would appear more closely linked with an aspect of personal liberty, a sense of human dignity, and a feeling of self-worth. Some consider this foundation of human dignity an essential human value which recognizes each person as a separate individual and forms the basis of the right to be let alone.138 The dignity preserved by controlling what personal information is exposed to others thus enables seclusion from another's invasive gaze. Autonomy, in the sense of the inviolability of our deepest sense of self, results.139 The tie-in to property still exists

132. See Epstein, supra note 123, at 8-9. "Where once the issue of "privacy" was primarily one having to do with one's physical seclusion, one's personal domain, and one's physical withdrawal from society's gaze, it has now come to include access to information about one's self." Reilly, 6 RICH. J.L. & TECH. at 39. See also ALAN HYDE, BODIES OF LAW 208-09 (Princeton Univ. Press 1997). The author, however, believes that an interest in privacy does not exist apart from the invasion of it. HYDE, supra note 132, at 220.

133. “Privacy . . . may be viewed as a precondition or a 'necessary shield' for intimacy.” Linda C. McClain, Inviolability and Privacy: The Castle, the Sanctuary, and the Body, 7 YALE J.L. & HUMAN. 195, 203 (1995).

134. See Epstein, supra note 123, at 8-9.

135. For an excellent discussion regarding ownership of information regarding cyberdata, see Pamela Samuelson, Privacy as Intellectual Property?, 52 STAN. L. REV. 1125, 1131 (2000).


137. Turkington, 10 N. ILL. U. L. REV. at 486.

138. Lucas D. Introna, Privacy and the Computer: Why We Need Privacy in the Information Society in CYBERETHICS: SOCIAL AND MORAL ISSUES IN THE COMPUTER AGE 195 (Robert M. Baird, Reagan Ramsower & Stuart E. Rosenbaum eds., 2000); Turkington, 10 N. ILL. U. L. REV. at 486. Warren, Brandeis, and Bloustein have all been portrayed as viewing privacy, and human dignity as the basis for the right, as fundamental. Id. Warren and Brandeis concluded that the interest protected was that of an "inviolate personality" rather than a private property right. They made the distinction based upon a monetary value placed on property and its loss. They noted that the right protected had no monetary value; therefore an action base on a property theory would not protect the right. Warren & Brandeis, 4 HARV. L. REV. at 205.

139. Introna, supra note 138, at 195 (citing J. Kupfer, Privacy, Autonomy, and Self-Concept, 24 AM. PHIL. Q. 81-82 (1987) (because it provides control over preventing another's knowledge)). Preventing another's knowledge recognizes that others have no right to own or exploit another. Autonomy focuses on this concept of self-ownership that
even at this level by using spatial imagery to convey the protection from intrusions upon one's inner space.140

Intrusion upon seclusion in the psychological area thus appears to draw upon the two concepts of property and dignity as grounding principles.141 Privacy in this context can be characterized as the peace of mind that comes from excluding others from access to one's "psychic area."142 Peace of mind is disturbed when one loses control over another's access to that personal information.143 While psychic "peace of

140. "The vocabulary of inviolability also uses spatial imagery of the castle or the sanctuary to convey the appropriate inaccessibility of the person." McClain, 7 YALE J.L. & HUMAN. at 204.


142. See James H. Moor, Toward a Theory of Privacy in the Information Age in CYBERETHICS: SOCIAL AND MORAL ISSUES IN THE COMPUTER AGE 195, 203 (Robert M. Baird, Reagan Ramsower & Stuart E. Rosenbaum eds., 2000). "Safe spaces" are defined not only physically, but psychologically. Moor, supra note 142, at 203. Thus, if information obtained would be of a nature to cause anxiety, then the information is private and protectable. See, e.g., Doe v. High-Tech Institute, Inc., 972 P.2d 1060 (Colo. App.1998) (where a positive result to an HIV test requested by one not authorized could be stigmatizing and therefore entitled to protection under the privacy tort). That which can be stigmatizing is entitled to a "heightened need for an individual to hold such information in seclusion . . . ." High-Tech Institute, 972 P.2d at 1070. See also Miller, 8 HEALTH MATRIX at 184. Social stigmatizing is a recognized concern resulting from another's privy to the genetic make-up of the subject. Those stigmas stem from personal prejudices. Perceived defects or deficiencies are at the root of such prejudices and potentially discriminatory behaviors which may arise following knowledge about a subject's genetic make up. Interestingly, the right to be let alone may also encompass the right of an individual to refuse to receive information about oneself, such as a positive test result indicating the presence of a disease-associated gene. Anita L. Allen, Genetic Privacy: Emerging Concepts and Values, in GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA 31-59 (Mark A. Rothstein ed., 1997); Mark A. Rothstein, Genetic Privacy and Confidentiality: Why They Are So Hard to Protect, 26 J. L. MED. & ETHICS 198 (1998).

143. See Introna, supra note 138, at 190. Legal recognition of this principle is illustrated in the common law. See, e.g., Nader v. General Motors Corp., 255 N.E.2d 765, 769 (N.Y. 1970) (stating there is a "right to keep knowledge about oneself from exposure to others"); Pinkerton National Detective Agency, Inc. v. Stevens, 132 S.E.2d 119 (Ga. App. 1963) (noting the principle supporting the right to be let alone is to protect one's "peace of mind against unreasonable disturbance"). "[A] core premise of the legal notion of inviolability" is restricting access. McClain, 7 YALE J.L. & HUMAN. at 241. While the author specifically discusses control over one's body, important in many feminist dialogues, there is every reason to apply the reasoning to the inviolability of the human spirit. Is that not a part of fundamental human rights? See Stanley I. Bern, Privacy, Freedom, and Respect for Persons, in PRIVACY 12, 13 (J. Roland Pennock & John W. Chapman eds., 1971) (noting the concepts of self and body are intertwined, with the underlying privacy interest resting in dignity or respect.)
mind" appears dignitary, notions of "psychic area" and "access to information" both utilize property language.

Control over one's psychic area is lost as one is made an involuntary victim of another's interference. This invasion of privacy occurs when another trespasses, harasses, or otherwise interferes with the environment one has chosen for oneself.\textsuperscript{144} Control is likewise lost when one must involuntary suffer the inclusion of another within one's chosen personal sphere.\textsuperscript{145} Intrusions in this genre include others' surveillance and prying, either directly or through objects under the other's control. Because of another's willful conduct, one no longer controls access to and exclusion from intimate details of information personal to oneself.\textsuperscript{146} Losing control over the chosen physical or psychic environment renders one's personal domain no longer private.\textsuperscript{147}

While such a discussion may portray uninvited intrusions as impacting a property interest in physical or psychic space, the essence of the right to be let alone may merely reflect property clothing draped over bare naked interests in dignity.\textsuperscript{148} When one views loss of control over personal environment as impacting autonomy or self-determination over one's personal realm, the discussion involves dignitary rights.\textsuperscript{149} Accordingly, interference with one's autonomy invades


\textsuperscript{145} Van Den Haag, supra note 144, at 149-53, 160. The author even characterizes such encounters as intrusions of "mental property." Id. at 151. Protective spheres can be defined as spatial or psychological. Lidsky, 73 Tul. L. Rev. at 204. Attacks on personal spheres can take the form of interference by others' spheres of activities, as with trespass or harassment; governmental interference; or in accessing information, as in surveillance or similar activities. See Reilly, 6 Rich. J.L. & Tech. at 6.

\textsuperscript{146} Beardsley, supra note 144, at 65. Autonomy is lost, and thereby dignity, when one no longer controls the dissemination of personal information. Id. See generally John M. True, Workplace Claims: Common Law and Public Policies Affecting Wrongful Termination, Collateral Torts, Internal Investigations, Privacy and "Digital Age" Issues, 614 PLI/LIT 819 (1999).

\textsuperscript{147} Fried, 77 Yale L.J. at 491 (1968). "The concept of privacy requires . . . a sense of control and a justified, acknowledged power to control aspects of one's environment. . . . privacy is not just an absence of information [] about ourselves; it is a feeling of security in control over that information." Id. at 493.

\textsuperscript{148} See Dobbs, supra note 101, at 1115. If control over one's person is the most basic of rights. See Jerry Kang, Information Privacy in Cyberspace Transactions, 50 Stan. L. Rev. 1193, 1294 n.290 (1998) (citing Union Pac. Ry. Co. v. Botsford, 141 U.S. 250 (1891)).

\textsuperscript{149} See Clemens P. Work, Whose Privacy?, 55 Mont. L. Rev. 209, 229 (1994). Constitutional cases reflect the importance of decision-making in maintaining privacy. In Griswold v. Connecticut, 381 U.S. 479 (1965), the dissent stated the type privacy — that which is "so rooted in the traditions and conscience of our people as to be ranked funda-
one's right to be let alone because such conduct interferes with one's "control over the intimacies of personal identity." The right of control, or the right to self-determination therefore includes the right to decide what to keep hidden from others. In that way, one's identity, one's personality, remains exclusively one's own.

Preserving exclusiveness of self, including secrecy over one's personal traits, is a primary function of privacy. When traits or characteristics linked with our individuality have been probed without consent, the seizing of personal information results in relinquishment of anonymity. One's environment of anonymity has thereby been compromised. In Griswold, 381 U.S. at 487 (Goldberg, J., concurring), Justice Black made the point that matters of personal intimacy are not for public prying.

Common law privacy is, in fact, considered to be the root of 14th Amendment privacy principles. Miller, 8 Health Matrix at 186-87. Justice Black's dissent in Griswold, represented the creation of a constitutional right to privacy comparable to that first advocated as a torts claim by Warren and Brandeis in 1890. Nevertheless, the common law right to privacy is separate from constitutional or statutory rights. See True, 614 PL/PLIT at 831-32. See also Hyman Gross, Privacy and Autonomy, in Privacy 169, 181 (J. Roland Pennock & John W. Chapman eds., 1971). Griswold type privacy invasion occurred because of governmental interference in a private decision, thereby impeding autonomy. However, not every restraint on autonomy necessarily impacts privacy despite the fact that an assault on privacy likewise assaults autonomy. Gross, supra note 149, at 181.

The High-Tech court broke down the sub-tort as loss of autonomy and whether the intrusion was highly offensive. This was the case where blood was offered for a rubella test, but the instructor asked for an AIDS test to be administered as well. High-Tech Institute, 972 P.2d at 1061.

Some commentators portray control over information flow as relating to the secrecy component of privacy rather than the anonymity and solitude components. (See McClurg, 73 N.C. L. Rev. at 1030 (citing Ruth Gavison, Privacy and the Limits of Law, 89 Yale L.J. 421, 428 (1980)). Secrecy in general has to do with withholding information, but the information withheld is not necessarily of the personal sort deserving of privacy protection. For example, a treaty may be secret, but it is not private. Van Den Haag, supra note 141, at 151. Genetic information is personal and my be considered a part of the secrecy component of privacy when the focus is on previously recorded genetic information that a party wishes to be withheld, such as the contents of a medical record that contains genetic information. With respect to genetic information sought to be discovered by third persons, on the other hand, the control over preventing the information flow is closely linked intrusion, which is tied to solitude and the right to be let alone.

Investigating a person's characteristics makes that person distinguishable from others and thereby no longer anonymous. See Merriam-Webster's Collegiate Dictionary 47-48 (Frederick C. Mish ed., 10th ed. 1999) (defining anonymous as "lacking individually, distinction, or recognizability"). Because anonymity can foster a sense of safety, privacy renders protection from harm. Moor, supra note 142, at 203; Gary GumPERTAND & Susan J. Drucker, The Demise of Privacy in a Private World: From Front Porches to Chat Rooms in Cyberethics: Social and Moral Issues in the Computer Age 173, 195 (Robert M. Baird, Reagan Ramsower & Stuart E. Rosenbaum eds., 2000). Although anonymity is more apparent when personal information has been widely disseminated, uninvited intimacy that comes from another's extraction of personal infor-
been wrongfully invaded by those one has not chosen to include in one's personal sphere. To prevent such privacy intrusions, one must maintain control over access to and exclusion from personal information about oneself.\textsuperscript{154} Granting legal remedy under the common law intrusion tort to those whose personal information has been impermissibly gathered or whose personal sphere has otherwise been invaded recognizes the right and enables one to maintain the necessary control. Analyses based on control preserve dignity in two senses: by taking account of a plaintiff's vulnerability with respect to preventing access to the personal information\textsuperscript{155} and plaintiff's vulnerability with respect to the intruder's misinterpretation of the information.\textsuperscript{156} Both senses apply to genetic privacy because it is so readily available and because of the tendency in today's cultural to regard scientific information as full truth about a subject matter.\textsuperscript{157}

C. BALANCING OF INTERESTS AND THE DEVELOPMENT OF A "PUBLIC PLACE" RULE

Recognition of a right to privacy does not automatically establish an absolute right to protection against another's interference with the right.\textsuperscript{158} Interests among members of society conflict.\textsuperscript{159} In seeking protection against invasions of privacy, therefore, the would-be plaintiff also seeks to limit the would-be defendant's right to use personal property such as camera, mini-recorder, or gene testing kit. Confronted with these conflicting interests, the legal system must make choices regarding which side to favor.\textsuperscript{160} In short, the right to privacy, which generates the need to control what personal information is exposed to others, must be balanced against the opposing interests of other actors in society.\textsuperscript{161} Competing interests of individuals who...

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\textsuperscript{154} Though culturally defined, the claim to privacy is one designed to "limit access or control access" through controlling distribution. Introna, supra note 138, at 190. One controls dissemination of personal information through the distinct legal feature of consent. See Victor A. Kovner, Suzanne L. Telsey, Edward L. Klaris & Jesse E. Gordon, Newsgathering, Invasion of Privacy and Related Torts, 581 Prac. L. Inst. 461, 469, 518-23 (1999).

\textsuperscript{155} See infra notes 199-209 and 277-89 and accompanying text.


\textsuperscript{157} Rosen, supra note 156, at 25. See Nelkin & Lindee, supra note 30, at 2.

\textsuperscript{158} Lidsky, 73 Tul. L. Rev. at 206.


\textsuperscript{161} W. Kent Davis, Protecting a Criminal Suspect's Right "To Be Let Alone" in the Information Age, 33 Gonz. L. Rev. 611, 625 (1997-98). Opposing interests permitting
must be able to freely act and express themselves and the vulnerability of individuals whose privacy is factually invaded must be carefully weighed and a workable formula articulated.

The Restatement (Second) of Torts has expressed such a balance in its definition of the intrusion upon seclusion tort, derived from case analysis:162 “One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.”163 The balance is not determined wholly by the aggrieved’s subjective attitude about privacy.164 Instead, the limitation on one’s right to privacy is expressed in objective terms. Intrusions must “be highly offensive to a reasonable person.”165 Thus, while mere noisiness would not invoke the intrusion tort, wiretapping would; while surveillance might give rise to a cause of action, it would fail if done reasonably in conjunction with an investigation pursuant to litigation.166

To determine what conduct violates dignitary interests,167 the means and/or purpose of intrusion is measured against the bare acts of harassment, spying or prying.168 Thus, phone calls or uninvited encounters could become tortious if the means employed were persis-

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162. See Shapo, 89 Nw. U. L. Rev. at 1572.
164. Beet, 47 DePaul L. Rev. at 902.
165. Restatement (Second) of Torts, Intrusion Upon Seclusion § 652B (1977) (emphasis added). This is generally considered to be a question of fact. See Tutaj, 82 Marq. L. Rev. 665 (1999).
167. See Prosser, 48 Cal. L. Rev. at 392. That the intrusion violates dignitary rather than property interests is supported by the fact that the right belongs only to an individual and may not be invoked by corporations, which are not natural persons, or by those who are no longer alive. Robert L. Tucker, Industrial Espionage as Unfair Competition, 29 U. Tol. L. Rev. 245, 249 (1998).
168. Beeson, 20 U. Haw. L. Rev. at 210-11. The author also points out that courts often blur any distinction between what is highly offensive and what privacy a person can reasonably expect. Id. at 210; Raum, 75 N.D. L. Rev. at 167. For a discussion regarding balancing interests, including the weighing of the purpose of the invasion, regarding informational privacy such as credit card and license information, see Halpern, 11 Santa Clara Computer & High Tech L.J. at 69.
tent to the point of "hounding." Overzealous surveillance becomes legal intrusion when an actor's conduct is unreasonably obtrusive or when the scope of an investigation goes beyond that necessary to obtain information essential to an actor's legitimate opposing interest. Examples of factual intrusions whose legal status depends upon scope may be found in the context of employment and litigation. The legal justification for the intrusion is based upon an employer's need to defend against theft or some other legitimate business concern, or a litigant's recognized need to discover evidence relevant to the point of "hounding."

169. See Dobbs, supra note 101, at 1202; Lidsky, 73 Tul. L. Rev. at 206; Prosser, 48 Cal. L. Rev. at 390.

170. Halper, 11 Santa Clara Computer & High Tech L.J. at 50. See, e.g., Nader v. General Motors Corp., 255 N.E.2d 765 (N.Y. 1970); Pinkerton Nat'l Detective Agency, Inc. v. Stevens, 132 S.E.2d 119 (Ga. Ct. App. 1963) (discussing facts where detectives hired by automobile insurers to investigate the veracity of accident victim's injuries followed closely in public places such as restaurants, cut holes in hedges to peer into windows, were on her property at night, and conducted constant surveillance).


172. In the context of the workplace, the employer's interest in learning about job-related concerns such as theft usually win. Beeson, 20 U. Haw. L. Rev. at 211. See, e.g., Smith v. Colorado Interstate Gas Co., 777 F. Supp. 854, 857 (D. Colo. 1991) (discussing allegations that the employee could not leave her desk or make phone calls without permission concerned the employer's business concerns rather than an intrusion upon seclusion); Johnson v. Carpenter Tech. Corp., 723 F. Supp. 180, 186 (D. Conn. 1989) (discussing a private employer's demand for a urine specimen as part of a random drug and alcohol screening held not protected under common law intentional intrusion on the seclusion of one's private affairs). The scope of the protected purpose must not be overly broad, or the conduct risks crossing the line of tortiously intruding into the employee's right of privacy. Some have suggested that courts are willing to overlook even abusive employer conduct unless overly broad to the extent of being egregious. Wilborn, 32 Ga. L. Rev. at 845-46. Therefore, use of the tort has not been successful in prevent abusive employer monitoring, despite the urging of commentators that the tort needs more widespread application as an effective way to curb the abuse. Id.

173. See, e.g., Pinkerton Nat'l Detective Agency, 132 S.E.2d at 119-27; McLain v. Boise Cascade Corp., 533 P.2d 343 (Or. 1975) (discussing the purpose of establishing the veracity of facts underlying a worker's compensation claim). Evidence of reasonable information-gathering includes conduct designed to capture no more information than that which could be observed by a neighbor or passerby. McLain, 533 P.2d at 348. Thereby, a balance is struck between the legitimate opposing interests in the same information.

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Neither context expresses an argument over the ownership of any information, which is relevant to a property-based analysis; both strive to locate the balancing fulcrum's position to determine the point at which an aggrieved's interests no longer outweigh that of the intruder's. The language justifying the intrusion is often phrased in terms of an aggrieved's unreasonable expectation of privacy when the aggrieved has actual (in the litigation context) or constructive (in the employment context) notice that some form of intrusion is likely by an identified class of persons (investigator or employer).

The demarcation between legal and mere factual intrusion may be fuzzy. The line dividing permissible surveillance from intrusive harassment may be drawn in accord with an evaluation of the "means" used to gather the personal information. The issue can turn on whether the information collected by the specific mechanical device would have been available using ordinary investigatory techniques. It is clear, however, that the critical point establishing liability rests not with what one does after collecting the information but with the intrusive act itself. Publication is not required; nor is it generally

employer monitoring, despite the urging of commentators that the tort needs more widespread application as an effective way to curb the abuse. Id.

175. See, e.g., Pinkerton National Detective Agency, 132 S.E.2d at 119-27. See also McLain, 533 P.2d at 343-49 (discussing surveillance for the purpose of establishing the veracity of facts underlying a worker's compensation claim). Evidence of reasonable information-gathering includes conduct designed to capture no more information than that which could be observed by a neighbor or passerby. McLain, 533 P.2d at 346. Thereby, a balance is struck between the legitimate opposing interests in the same information.


177. Richard A. Epstein, Standing Firm, on Forbidden Grounds, 31 SAN DIEGO L. REV. 1, 8 (1994) (providing legal intrusion may be tied, in part, to the emotional discomfort caused).

178. Shapo, 89 NW. U. L. REV. at 1571; Scott Shorr, Personal Information Contracts: How to Protect Privacy Without Violating the First Amendment, 80 CORNELL L. REV. 1756, 1778 (1995); Litwin, 86 GEO. L.J. at 1097. See generally KEeton, Dobbs, KEeton & OWens, supra note 86, at 856. See also Joshua B. Sessler, Computer Cookie Control: Transaction Generated Information and Privacy Regulation on the Internet, 5 J. L. & POL'y 627, 669-70 (1997). With respect to cyberinvasions via computer cookies, not only is there a problem in determining what is highly offensive to a reasonable person, there is also difficulty in asserting that the act of accumulating the personal information is intentional as required. Defendants may successfully assert that their conduct is merely "passive" rather than intentional. Sessler, 5 J. L. & POL'y at 670. However, if one applies the common torts definition of "intentional" as substantial certainty that a result will occur, as first years learn in Garratt v. Dailey, 279 P.2d 1091 (Wash. 1955), appeal after remand, 304 P.2d 681 (Wash. 1956), such a defense should fail.

179. Lidsky, 73 TUL. L. REV. at 204; McIntosh, 23 HAMLINE L. REV. at 567. The whole of intrusions related to cyberdata, as discussed in the cited article, stress the lack
necessary that anyone hear or view the information.\textsuperscript{180} Instead, harm occurs at the time that “intimate details” of life are exposed by the use of surreptitious instruments.\textsuperscript{181} As science, technology, and the operation of the marketplace bring new inventions such as gene testing kits to broader public use, the “means” test triggering liability may become unworkable. The potentially mechanistic approach must yield to a reasoned consideration of the true issue: a determination of how to tip the scales when the right to one’s person, in the context of genetic identity, must be balanced against another’s right to make use of available technology. Should a private party’s use of gene testing mechanisms to gather personal information about a target be considered legally intrusive? Should it be considered mere factual intrusion—a trifling “minor irritation” that must be endured in the context of life in society?\textsuperscript{182}

How one formulates the answer could depend on how one classifies the invaded interest. Is it property or dignity that has been attacked? If one regards genetic intrusions as property invasions, one may be inclined to evaluate more heavily the intruder’s location, use of commonplace equipment, and motives in a manner similar to the consideration of what would be the highest and best use. If, on the other hand, one regards genetic intrusions as dignitary attacks, one would focus more on the interests of the aggrieved similar to the manner in which bodily integrity is preserved.\textsuperscript{183} Broader privacy protection, provided by the latter perspective, appears warranted at this time when the ramifications of the permanent loss of genetic privacy to current and future generations is unknown and indeterminate.\textsuperscript{184}

\textsuperscript{180} Dobbs, supra note 101, at 1201. Publication or wrongful use of the information operates only to determine aggravated damages. Id. Unfortunately, the distinction between intrusion and publication is sometimes lost on judges where media defendants are involved. Kovner, Telsey, Klaris & Gordoh, 581 PRAC. L. INST. at 469.


\textsuperscript{183} Bodily integrity is protected by the legal theory of informed consent, which was devised to respect human autonomy, which is linked with privacy. Baumann, 86 IOWA L. REV. at 689.

\textsuperscript{184} Current views regarding the treatment of genetic information varies. One camp urges that it should be regarded as health information in medical records. Miller, 8 HEALTH MATRIX at 187-88. Such treatment would provide only limited protection. See supra notes 60-69 and accompanying text. George Annas suggests that genetic information should be viewed differently than mere medical record information, noting that genes expose our “future diary.” Miller, 8 HEALTH MATRIX at 187-88.
Despite widespread recognition that preservation of human dignity is the underlying basis for the right, property language has served the purpose of articulating how the right may be safeguarded and where lines could (or should) be drawn. An illustration of the latter may be found in the context of photographing others in public places. Prosser would find such conduct not generally actionable, articulating his conclusion in the following property terms: "On the public street, or in any other public place, the plaintiff has no right to be alone." Accordingly, spatial location at the time of the intrusive conduct results in line-drawing. If the act occurs in a place where both parties had a right to be (public place), the aggrieved's right to privacy is glossed over in favor of the photographer's right to use a common instrumentality (camera) to perform a socially permissible activity (taking photographs). The line-drawing is bolstered by the explanation that the scene photographed was one "which any one present would be free to see."

On its face, Prosser's statement that a person has no right to be alone in a public place appears perfectly reasonable; Prosser seems to have struck the proper balance. However, when applied universally to behavior occurring in public places, it results in an apparent lack of privacy if the intruder's non-obtrusive conduct is performed when both parties are in a public place. This approach has appeal, particularly if certainty is highly valued. On the other hand, if the statement that one has no right to be alone in a public place is applied

185. See supra notes 109, 138 and accompanying text.
186. See supra notes 141-44 and accompanying text.
188. Prosser, 48 CAL. L. REV at 392. Prosser thereby concludes that taking a photograph does not tortiously invade another's privacy interests since the photograph merely makes a record of that which is readily observable. Id. McClurg takes issue with this interpretation since it does not even consider the potential inspection of more intricate details afforded by the permanent print and its increased observation time. One can only wonder if Prosser would have made the same conclusion if faced with satellite technology. There is a difference between "surveillance" that occurs from electronic collection of information in plain view and "casual observation" that exposes us to the perusal of strangers in society. The latter does not create disturbing constraint. See Kang, 50 STAN. L. REV at 1260-61. Yet the mechanical application of no privacy in a public place appears to have blocked the application of brevity as a balancing factor.
189. But see Kang, 50 STAN. L. REV at 1260-61, where a photograph captures information that would not be noticed in brief encounters, thus weakening the argument that the photo does no damage to one's dignitary interests. This counter argument grows stronger when one adds additional factors such as high speed or movie film whose study might reveal additional personal information such as slight physical disability that would be unnoticed in real life, or that can be magnified to reveal otherwise undetectable information.
mechanically, the aggrieved person has, with one stroke, lost the ability to utilize the balancing test as outlined in the Restatement. A mechanical application of Prosser's statement appears to have transformed an essentially factual question into a conclusion of law.\textsuperscript{190} Furthermore, the phrase "no right to be alone" stands apart from Cooley's articulation of the right of privacy as the "right to be let alone."\textsuperscript{191} While there may be no argument against the former statement in the context of any public place, what constitutes being "let alone" in the latter statement is always subject to interpretation. Therefore, balancing remains paramount, even in the context of public places.

The Restatement (Second) of Torts\textsuperscript{192} did recognize that there were circumstances when one's privacy might be legally invaded; that is, that others might not be free to view \textit{everything} in a public place.\textsuperscript{193} It used \textit{Daily Times Democrat v. Graham}\textsuperscript{194} to illustrate\textsuperscript{195} that some "matters" ("underwear, or lack thereof," for instance) fell within the category.\textsuperscript{196} However, its explanation appears in the form of an exception to a rule of no privacy in a public place rather than the result of contextual analysis.\textsuperscript{197}

1. \textit{Private "Matters" in Public Places}

So, then, what "matters" are not free to see? If the dispositive issue regarding the legal status of the loss of privacy is the "matter" of the "underwear or lack of it" referred to in the Restatement,\textsuperscript{198} then

\textsuperscript{190} See generally McClurg, 73 N.C. L. Rev. at 989.
\textsuperscript{191} Cooley, supra note 82, at 29 (emphasis added). McClurg cites numerous instances of a mechanical application of that phrase to defeat intrusion actions where justice would seem to have demanded remedy. McClurg, 73 N.C. L. Rev. at 989. It would seem that mechanical application completely obfuscated the difference between the right to be let alone, as originally set forth by Cooley, and no right to be alone in a crowded society.
\textsuperscript{192} Restatement (Second) of Torts § 652B (1977).
\textsuperscript{193} Restatement (Second) of Torts § 652B cmt. c (1977). The restatement provides:

Nor is there liability for observing him or even taking his photograph while he is walking on the public highway, since he is not then in seclusion, and his appearance is public and open to the public eye. Even in a public place, however, there may be some matters about the plaintiff, such as his underwear or lack of it, that are not exhibited to the public gaze; and there may still be invasion of privacy when there is intrusion upon these matters.

Restatement (Second) of Torts § 652B cmt. c (1977). The Comment was referring to \textit{Daily Times Democrat v. Graham}, 162 So.2d 474 (Ala. 1964).
\textsuperscript{194} 162 So.2d 474 (Ala. 1964).
\textsuperscript{195} See Restatement (Second) of Torts § 652B cmt. c, illus. 7 (1977). Although the case is not cited, the facts clearly track those of \textit{Daily Times Democrat}.
\textsuperscript{196} Restatement (Second) of Torts § 652B cmt. c, illus. 7 (1997).
\textsuperscript{197} This is most apparent when considering that the public/private place argument forms the subject of comment c while the balancing test is discussed separately, in comment d. Restatement (Second) of Torts § 652B cmt. c & d (1977).
\textsuperscript{198} Restatement (Second) of Torts § 652B cmt. c (1977).
how does one account for opposite results in *Daily Times Democrat* and *Neff v. Time, Inc.?*  

In *Graham*, the plaintiff, who had just exited the Fun House at a fair, was captured on film with her skirt flung up, thereby revealing her undergarments. The court granted relief to *Graham*.  

In *Neff*, the plaintiff, who was attending a sports event, was captured on film with the front zipper of his trousers unfastened, thereby revealing what lay beneath. Clearly, the different results cannot be reconciled on the basis of exposure of a tangible item in a public place.  

A distinction may be found by examining more carefully the specific context of the release of the personal information. In *Graham*, the plaintiff was caught off guard; she had no expectation that a stream of air would shoot out and cause her undergarments to be exposed. Moreover, the photographer deliberately placed himself in a position that was reasonably calculated to extract the personal information. Although the plaintiff could have discovered the presence of the air device by carefully inquiring what occurred in the Fun House, would it be reasonable to have her guard against every possible intrusion before allowing the claim to succeed?  

*Graham* had not voluntarily exposed her undergarments; there had been no consent to the intrusion upon her privacy. Instead, she was placed in a vulnerable position by two acts: that of the Fun House which had put in place the instrument by which her privacy was compromised, and again by the photographer who was aware of her vulnerability and took advantage of it, thereby capturing personal information without authorization. By placing himself in a position of snapping the photograph precisely at a time when he knew the target had no control over the dissemination of knowledge about her personal affairs (in this case, the sight of her undergarments), the photographer invaded her privacy.  

Privacy was not lost by virtue of consent, abandonment, or assumption of the risk. Instead, it was forcefully removed by another without privilege to do so.  

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201. Even if the defendant had not snapped any photos, the conduct of becoming a "peeping tom" would suggest a viable cause of action for intruding upon Graham's seclusion. The dissemination through the press, of course, greatly increased damages.  
202. Had the court failed to protect against the unconsented to, involuntary extraction of the highly personal information (regarding Graham's undergarments), the result would be coercion. See Michael A. Weinstein, *Coercion, Space, and the Modes Human Domination, in Coercion* 63, 71-76 (J. Roland Pennock & John W. Chapman eds., 1972). Therefore, legal protection is needed to maintain an individual's psychological and physical well-being and to prevent a person's reduction "to an object of scientific control." Weinstein, *supra* note 203, at 63, 71.
By contrast, Neff was aware that photographers were taking pictures at the game and, in fact, "hammed it up" for the photographers. The fact that he was later embarrassed to find the state of his unzipped pants subsequent to the event is of no moment. He had abandoned the right to privacy in the personal information regarding his underwear because he was careless in protecting the information. Graham, on the other hand, was not responsible for the exposure of the personal information; it was forcefully removed. In effect, Neff's careless conduct that allowed for the disclosure of personal information could be deemed voluntary. He had control over the information had he chosen to exercise reasonable care. Graham's behavior, on the other hand was reasonable. No one would expect that every precaution be taken. Thus, Graham did not abandon control over the disclosure of personal information; it was forcefully removed in a public place.

What is protected, then, is not merely some private, tangible item reducible to a property interest in the thing itself. Instead, it is one's right to control the exposure of information regarding something personal. The right to control the exposure of information is not precisely the same as a right to control its dissemination, which resembles licensing, a property concept. The former speaks to issues of choice and coercion. It is not the tangible value of the information itself, therefore, that is preserved through control. Instead, the intrusion tort safeguards the intangible values of human dignity, self-identity and peace of mind.

2. Ramification of the Public Place Rule

If the intrusion tort is truly meant to protect the right of a person to be let alone, the starting point of the analysis should be on the aggrieved's privacy interests. Balancing the right with the intruder's opposing interests serves to limit the scope of the privacy interest, analogous to rebutting a presumption that initially favors a plaintiff. On the other hand, by presenting the safeguard of privacy interests as an exception when intrusive conduct occurs in a public place, one

205. See Gross, supra note 149, at 171.
206. See Gross, supra note 149, at 171, 175.
207. See Gross, supra note 149, at 171, 175. Arguably, privacy protection in tort provides liability when rules of etiquette have broken down. See ROSEN, supra note 156, at 16-20.
208. See Beardsley, supra note 149, at 56, 70. The "core of privacy" is connected with the power to control what personal information is disclosed. By mutual respect over that right, the "norm of autonomy" is achieved. Id.
would expect the balancing process to be skewed in favor the intruder's interests.

D. LIMITED APPLICATION OF THE INTRUSION TORT

Andrew McClurg concludes that Prosser's limiting language has had a profound limitation on the application of the tort to intrusions occurring in public places.\textsuperscript{209} He suggests that in place of an analytical approach, many judges have mechanically adhered to a conclusion that Graham's relief was a rare circumstance, effectively developing a rule of no privacy in a public place.\textsuperscript{210} As a result, legitimate intrusion claims have failed to survive past preliminary motions of dismissal or summary judgment.\textsuperscript{211}

Three high profile cases provide examples of the rare exception to the developing rule of no privacy in public places: \textit{Nader v. General Motors Corporation},\textsuperscript{212} \textit{Wolfson v. Lewis},\textsuperscript{213} and \textit{Galella v. Onassis}.\textsuperscript{214} In \textit{Nader}, consumer advocate Ralph Nader was pursued by agents of the defendant automobile manufacturer following his lectures criticizing the safety and design of the defendant's products. Relief was granted on the basis of the defendant's "overzealous" surveillance.\textsuperscript{215} The specific objectionable act consisted of Nader's allegation that his pursuer was standing close enough to see the denomination of the bills he was withdrawing from a bank. The \textit{Nader} court did not find convincing a bright line public place-private place distinction to determine whether relief should be granted under the intrusion sub-tort. Instead, the court urged: "[a] person does not automatically make public everything he does merely by being in a public place, and the mere fact that Nader was in a bank did not give anyone the right to try to discover the amount of money he was withdrawing."\textsuperscript{216} The court concluded that intrusion into the plaintiff's "private sphere" would depend upon whether Nader had acted in a way that would reveal the private information to a "casual observer."\textsuperscript{217} It is apparent that con-

\textsuperscript{209} Beardsley, \textit{supra} note 149, at 56, 70. Although there were a number of advisors who contributed to the American Law Institute's promulgation of the Restatement of the Law Second of Torts in 1965, Prosser was the one and only Reporter. \textit{Restatement (Second) of Torts} (1965).
\textsuperscript{210} See McClurg, 73 N.C. L. REV. at 990.
\textsuperscript{211} \textit{Id.} (citing numerous cases in support). The analysis included cases up to publication of the article, which was in 1995. \textit{Id.} at 991-94.
\textsuperscript{212} 255 N.E.2d 765 (N.Y. 1970).
\textsuperscript{214} 487 F.2d 986 (2d Cir. 1973).
\textsuperscript{216} \textit{Nader}, 255 N.E.2d at 771 (discussing a plaintiff that claimed that defendant's agent was close enough to see the denomination of the money he withdrew).
\textsuperscript{217} \textit{Id.}
control was at issue. That is, was Nader relieved of control over the information, or did he abandon it?

In *Galella*, a photographer repeatedly jumped out at Jackie Onassis and her children John Kennedy, Jr. and Caroline Kennedy to snap photographs. Because the children's safety was at issue, the court granted an injunction. When the reporter failed to adhere to the court-set distance, plaintiff's intrusion was remedied by way of contempt charges. Here, legal protection was afforded through a “back door.”

In *Wolfson v. Lewis*, reporters followed the executive directors of a healthcare company and erected a shotgun microphone hoisted upon a long microphone boom near their home which could pick up clear sounds at sixty feet. Relief was granted based on the harassing conduct. In fact, all three cases could be construed as harassment cases, none of which addressed non-obtrusive behavior. A unifying underlying feature common to all three cases was that the plaintiffs could do nothing more to protect their right to be let alone.

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218. Galella v. Onassis, 487 F.2d 986, 991, 998 (2d Cir. 1973). See also Kovner, Telsey, Klaris & Gordoh, 581 PRAC. L. INST. at 478. New York has no common law intrusion; the only recourse is under the privacy statute. This came about when a judge denied the existence of the tort under the common law. Reacting to the case, the state legislature enacted statutory relief.


220. *Id.* at 1432. The court granted a preliminary injunction regarding the harassing conduct intruding on the plaintiffs' privacy. Despite the fact that the case settled on the eve of argument, the preliminary injunction was granted on the basis that plaintiffs would prevail on the intrusion upon seclusion claim. Kovner, Telsey, Klaris & Gordoh, 581 PRAC. L. INST. at 478. Unlike *Galella*, *Wolfson* surveillance was performed from some physical distance away. Significantly, based on *Wolfson*, tortious intrusion may more likely be found when information captured could not be perceived by the normal senses. See Litwin, 86 GEO L.J. at 1108. Moreover, the *Wolfson* court focused on the purposes defendant's conduct, which was to coerce, through intrusive harassment, an interview by which information could be extracted. See Litwin, 86 GEO. L.J. at 1111. While Litwin views this as contrary to 1st Amendment media rights, I view this as understanding that intrusion occurs when a person can do nothing to protect themselves one leaving the confines of the home. Accord Wolfson v. Lewis, 924 F. Supp. 1413 (E.D. Pa. 1996) (discussing the use of the “shotgun” microphone made plaintiffs prisoners in their own home). A “shotgun” mike or “spike” mike is extended on a long spike, to which an amplifier and earphones are attached. Andrew D. Morton, *Much Ado About News Gathering: Personal Privacy, Law Enforcement, and the Law of Unintended Consequences for Anti-Paparazzi Legislation*, 147 U. PA. L. REV. 1435, 1445 n.67 (1999).

221. In *Nader*, Nader was entitled to withdraw money from the bank and expect that others would not be privy to the information regarding the quantity of money involved in transactions there. Relief would be afforded unless Nader had abandoned his privacy interests. In *Galella*, opposing rights to observe the famous family did not include being forced to endure photographer's unsafe conduct. In *Wolfson*, a family must not protect privacy rights only by retreating to the castle of their home. In all cases, then, relief for intrusion in those public places could be presumed granted on the basis that plaintiff need do no more to protect their rights to personal information. Of course, one wonders if the same result would occur if plaintiffs had not been influential people who carefully guarded themselves from public view.
When one lives among others in society, one cannot be required to "throw about" an impenetrable blanket of privacy each time one sets foot beyond the home in order to preserve one's dignity. The burden would be impossible to meet, particularly when one does not realize one's vulnerability to intrusions of privacy. Therefore, as pointed out by McClurg, the mechanical application of a rule of no privacy in a public place as a matter of law should yield to the more flexible analysis originally envisioned: that of filling the gaps and balancing opposing interests in the context of the circumstances presented by the case under consideration. The return to determining expectations of privacy and offensiveness of conduct as questions of fact would appear necessary in light of new technologies used to intrude which were not previously envisioned.

One must now determine the extent to which future claims of intrusions upon genetic seclusion will be protected under current tort privacy law. If jurists continue to mechanically apply a public place test, then would-be plaintiffs will not last beyond summary judgment. To examine the continued application of the public place rule that tends to defeat claims of intrusion, an analysis of intrusion cases from the past three years follows.

E. CURRENT TORT APPLICATION OF INTRUSION UPON ONE'S SECLUSION

This next section proposes to demonstrate that recent intrusion cases decided after the McClurg article appear to be more successful in overcoming that first basic hurdle. A new trend may be developing that would not automatically dismiss public place non-harassment intrusions.

During the past few years, defendants' motions akin to dismissal or summary judgment have been successful at the trial court or at the appellate level, as illustrated by the following cases:

- Daily Times Democrat, 162 So.2d at 474 (discussing when a woman's skirt was blown up by air from a floor grate). See also discussion in Tutaj, 82 MARQ. L. Rev. at 665. The author points out that no one is required to build an "impenetrable fortress" to guard against exposure of trade secrets by "the unanticipated, the undetectable, or the unpreventable methods of espionage now available." Id. at 684. The author further suggests that one could not be held to a higher standard of protecting oneself from invasion of privacy than is required to protect trade secrets. Id.
- McClurg, 73 N.C. L. Rev. at 989.
pellate court level in many instances. However, a significant number of these motions initially favoring defendants at the trial court level have been reversed. Moreover, trial court judges have ruled in favor of plaintiffs and appellate courts have affirmed plaintiff-favorable trial court actions. It is evident that actions in intrusion upon seclusion currently enjoy broad-based support.


The intrusion tort has recently been applied in a variety of contexts including harassment, either general or sexual in nature; employer mandatory drug testing; surreptitious mechanical surveillance, particularly involving media defend-

229. A host of on-line intrusions in the form of unauthorized collection of information or harassment in the form of "cyberstalking" is also expected in the future. Bruce Telles, Insurance Coverage for Intellectual Property Torts, 602 PRAC. L. INST. 629 (1999). This would include intrusions based upon e-mail monitoring. Beeson, 20 U. HAw. L. Rev. at 209. Unauthorized access to information contained in e-mail communications is expected to be actionable by analogy to wiretapping. Susan E. Ginding, Lost and Found in Cyberspace: Informational Privacy in the Age of the Internet, 34 SAN DIEGO L. REV. 1153, 1189 (1997).


surveillance not involving special equipment; and non-surveillance types of spying and prying into private concerns. Only one recent case was grounded in a defendant’s physical intrusion upon plaintiff’s private space. The application of the privacy tort to rem-


234. Sanders v. American Broadcasting Companies, Inc., 978 P.2d 67 (Cal. 1999) (media investigatory reporter posed as employee); Cook v. WHDH-TV, Inc., No. 941269, 1999 WL 1327222, at *1 (Mass. Mar. 4, 1999) (reporter interrogated plaintiff while he was in his car with his son at a fast-food drive up window); Shulman v. Group W Productions, Inc., 955 P.2d 469 (Cal. 1998) (media minicam and microphone pried into private data at accident scene and in rescue helicopter); Medical Laboratory Management Consultants v. Am. Broad. Cos., Inc., 30 F. Supp. 2d 1182 (D. Ariz. 1998) (investigative reporter posing as colleague); Deterser v. ABC, Inc., 121 F.3d 460 (9th Cir. 1997) (voluntary disclosure to known reporter); Alpha Therapeutic Corp. v. Nippon Hosco Kyokai, 199 F.3d 1078 (9th Cir. 1999) (reporter interviewed company executive at his home, recording via hidden microphone in his necktie and videotaping from a parked van), opinion withdrawn, Alpha Therapeutic Corp. v. Kyokai, 237 F.3d 1007 (9th Cir. 2001).


edy intrusions has not been equally successful in each of the above categories. Analyzing each category separately helps explain the extent to which the intrusion tort may be successfully applied to protect genetic privacy.

1. Harassment Context

Plaintiffs' harassment complaints have enjoyed favorable rulings\(^\text{238}\) except where a plaintiff's classification as a harassed individual has been suspect.\(^\text{239}\) The application of the intrusion tort to modern theories of sexual harassment has been by and large successful, with defendants' motions for summary judgment surviving only in instances where the plaintiff sought to hold a company responsible for the intentional, inappropriate conduct of one co-worker to another.\(^\text{240}\) By contrast, employer or supervisor misconduct resulted in plaintiff-favorable rulings.\(^\text{241}\) Sexual misconduct cases that did not occur at the workplace were also plaintiff-favorable.\(^\text{242}\) Conduct regarding reproductive privacy has even constitutional protection under the rubric of privacy.\(^\text{243}\) Therefore, an attack from a defendant would appear to be presumptively offensive. As actors in society, we must, to keep peace, allow a certain amount of hostility to be diffused without penalty. Therefore, not every offensive act is legally remedied. The focus of the harassment issue turns on whether the offensiveness of the particular conduct rises to a level unacceptable by society (as determined by the finder of fact) such that a defendant would be held legally lia-


ble. Therein is the balance originally expressed in the limitation that the intrusion must be highly offensive to a reasonable person. A trier of fact, or juror, is uniquely qualified to supply an answer to whether the defendant's conduct was an acceptable diffusion of emotions or crossed the line into actionable intrusion.

2. Workplace Drug Testing

During the last three years, in each case in which a plaintiff complained that mandatory workplace drug testing tortiously invaded privacy, trial courts granted the defendant employer's motion for summary judgment.\footnote{244} Urine is often the specimen to which a test is applied. Drug testing can involve monitoring the actual passing of urine, either by someone in the same room or by means of a video monitor. Passing urine is one of the most private acts an individual can perform.\footnote{245} In fact, it is so private that many courts have avoided using the proper words when reference to the act must be made.\footnote{246} For another individual to view such a private act would seem the penultimate invasion of privacy. So why, then, have courts uniformly rejected plaintiff actions in recent years?\footnote{247}

Two parties have legitimate competing interests: plaintiff employees have an interest in being free from unwanted intrusion, and defendant employers have an interest in maintaining a safe workplace and ensuring that its employees do not place the general public in positions of unreasonable risk of harm. Balancing those competing interests adjusts rights.\footnote{248} An important factor in balancing those


\footnote{246} See Hyde, \textit{supra} note 132, at 210.

\footnote{247} Jones, No. CIV.A.-94-1412-JTM, 1998 WL 159505, at *1 (plaintiff objected to drug testing methodology); Frye, 15 F. Supp. 2d 1032 (plaintiff complained that testing was not performed in conformity with an alleged policy of reasonable suspicion that an employee's ability to function was impaired because of drug use); Hart, 947 P.2d at 846 (plaintiff enumerated inconveniences in being driven to the drug testing center without being allowed to drink anything which would have nullified the accuracy of the test results, but failed to plead intrusion; they had signed drug-free papers, were overheard discussing how to trick results into false negatives, and were discharged for refusal to submit to the agreed upon testing); Wilcher, 60 F. Supp. 2d at 298 (where firemen objected to the monitoring of urination for collection of testing specimen).

\footnote{248} In \textit{Borse v. Piece Goods Shop, Inc.}, 963 F.2d 611 (3d Cir. 1992), a seminal case in which plaintiff alleged wrongful discharge for refusal to submit to the employer's drug testing, acknowledged the need to balance opposing interests, the court maintained that an intrusion case must resolve the factual issue of whether the drug testing
competing rights can be based on an employer's purpose, or on what the defendant needs to know.249

The scope of what an employer needs to know may include how an employer may discharge its duty to society to prevent foreseeable risks of harm caused by the defendant's employee/agents.250 Because it is foreseeable that drugs could impair judgments and result in harm, employers need to know that their employees are free from drugs which could cloud judgments and adversely affect the ability to perform duties properly.251

A way of ensuring a drug-free environment is to randomly test employees. If an employer is held liable for such testing under an intrusion theory of privacy, then an employer is prevented from effectively impeding unfettered drug use and society as a whole consequently suffers.252 Therefore, the public policy of ensuring the safety of the general public appears to tilt the balance in favor of defendant employers who are in control of effectuating the policy.

249. The right to acquire body samples only if they "need to know" reinforces the concept that privacy is based on preventing another's access to personal information. The privacy interest in a bodily waste such as urine does not have "internal integrity" because it is no longer attached to the body. Instead, the privacy interest is "residual." That is, another should be excluded from examination of its contents who has no need to know of it. Hyde, supra note 132, at 208-09. The right to privacy, then, may not so much articulate an individual right as it does a concept that restricts the conduct of others. That would explain why the privacy interest does not arise until there has been an intrusion. See id. at 220. See also cases, often in the constitutional setting, which stress the importance of an opponent's need to know certain information before the extraction of private information is legally protected. E.g., National Treasury Employees Union v. Von Raab, 489 U.S. 656, 664 (1989) (urine collection and testing: testing is intrusive because it reveals personal information); Skinner v. Ry Labor Executives Assc., 489 U.S. 602 (1989) (blood and urine testing in the employment context; the chemical analysis of the body tissue is an intrusion separate from the taking of the sample). Compare High-Tech, 972 P.2d at 1060, where the analysis of two separate intrusions is applied to the torts construct. This indicates that one maintains a privacy interest in the content of the tissue sample even though one may have no (or minimal) interest in tissue samples themselves which are no longer a part of the body, such as hair. Historically, a defendant's reasonable investigation of a plaintiff-opponent in a case, for example in personal injury cases, was not an intrusion upon the plaintiff's seclusion. A personal injury defendant needed to know the extent of injuries claimed and the injured's credible reporting of those injuries for which the defendant was charged with liability. See supra notes 174-75 and accompanying text.

250. Negligence liability is, in fact, focused upon exposing plaintiffs to unreasonable risks of harm. Plaintiffs are affected not only directly, as in vehicular accidents caused by agents of the employer, but also indirectly. For example, product defects may have resulted from alcohol-induced inattention.

251. See Wilcher, 60 F. Supp. 2d at 298 (particularly those with positions of responsibility, or involving control of motorized parts).

252. The underlying presumption is that improper drug use occurs. There is ample support for the proposition that in today's society, drug use is prevalent and is, therefore, a legitimate concern in the context of the workplace.
Wilcher v. City of Wilmington\textsuperscript{253} illustrates the application of the intrusion tort and the balancing of interests regarding mandatory workplace drug testing. In Wilcher, firemen claimed that the means used to assure that the urine specimen subjected to testing was obtained from the targeted firemen tortiously intruded upon their privacy because the monitor used captured the visual impressions of their genitalia. Clearly, the conduct of observing urination with a view of genitals is a highly offensive intrusive act from a subjective perspective.\textsuperscript{254}

In general, the question of whether a specific conduct is highly offensive to a reasonable person is a question of fact. However, trusting jurors to understand the impact of their decisions on major societal issues is risky and could yield inconsistent results. Without consistency in the law, defendant employers cannot conform their behavior to effectively discharge their duty to protect society from unreasonable risks of harm caused by drug-impaired workers. Thus, if offensiveness can be objectified under a public policy argument while simultaneously removing the issue from the factfinder, society as a whole could be construed as benefiting.\textsuperscript{255}

Wilcher accomplished this task by borrowing a factor analysis from a constitutional drug-testing case, Hill v. National Collegiate Athletic Assoc.\textsuperscript{256} The enumerated factors used to test whether the employer's acts would be highly offensive to the reasonable person included an examination of the degree of intrusion; the surrounding circumstances; the employer's motives; the privacy of the setting; and the employees' expectation of privacy.\textsuperscript{257} The court commented that no direct observation of the genitalia occurred. Instead, any observation was only indirectly through a monitoring system utilized to assure the integrity of the samples. Despite the private setting in which urination generally occurs, a reasonable person could not perceive the conduct tortiously offensive because the expectation of privacy for firefighters is diminished when balanced with other societal interests protected by employer duties. The important public policy of protecting the public from drug-induced fire-fighting ineffectiveness resulted in a declaration that those directly involved with protecting the public,

\textsuperscript{253} 60 F. Supp. 2d 298 (D. Del.1999).
\textsuperscript{254} See supra note 249 and accompanying text.
\textsuperscript{255} The problem with the analysis is that, just as in the mechanical application of no intrusion in a public place, intrusions unjustified under a "need to know" test could go unremedied.
\textsuperscript{256} 865 P.2d 633 (Cal. 1994). Interestingly, Hill used tort law to examine California's constitutional right to privacy.
\textsuperscript{257} Hill v. National Collegiate Athletic Assoc., 865 P.2d 633, 648 (Cal. 1994).
such as firefighters, had a diminished expectation of privacy. Thus, as a matter of law, there was no tortious intrusion.

3. Mechanical Surveillance

Providing relief for plaintiffs whose privacy has been invaded by surreptitious mechanical surveillance has been the developing classic usage of the intrusion upon seclusion tort. The expectation is that defendants are free to photograph plaintiffs in public places. Such conduct, it is argued, cannot be highly offensive to a reasonable person. One cannot complain about another's viewing that which the plaintiff has placed in public view, and cameras do no more than create a record of what is already public. Thus, video taping a plaintiff at a private yacht club was not actionable because any member of the boating public could have seen the plaintiff at the club; and photographing a neighbor's yard to prove violation of a local ordinance was not actionable since the front yard was in full view.

A defendant's purpose for surreptitious record-making plays a major role in determining the degree of offensiveness of the conduct. A construed purpose, such as protecting the best interests of a child, can be deemed so important that only lip service may be given to the consideration of a plaintiff's opposing interests in privacy. In Plaxico v. Michael, for instance, the defendant was not liable for peering into the bedroom window of his former family home and snapping semi-nude photographs of the lesbian lover of his former wife. Because the purpose of taking the photographs was to protect the minor child from exposure to the sexual affair, the court concluded that "a reasonable person would not feel Michael's interference with Plaxico's seclusion was a substantial one that would rise to the level of gross offensiveness as required to prove the sub-tort of intentional intrusion upon seclusion or solitude."

Plaxico was not the mother of the child whose custody determination was at issue. Therefore, it would appear to be more than arguable that reasonable persons could find such intrusions "highly offensive." Where reasonable persons can differ, the facts are typically left for the fact-finder. Nevertheless, while utilizing "reasonable

258. Wilcher, 60 F. Supp. 2d at 304.
259. Wilcher provides a logical public policy reason to decide lack of offensiveness of workplace drug testing as a matter of law. However, if the means of testing in Wilcher were not "highly offensive" where genitalia were in plain view of the monitor, then it is difficult to see how drug testing that does not involve physical contact can survive beyond summary judgment.
262. 735 So.2d 1036 (Miss. 1999).
263. Plaxico v. Michael, 735 So.2d 1036, 1040 (Miss. 1999).
person” language, the court implied that reasonable fact-finders could not differ in their determinations. The effect of this five-to-four decision was to transform an essentially factual issue into a matter of law and thereby remove the case from the scrutiny of jurors, who are most suitable for reflecting what intrusions society will or will not tolerate. What is most disturbing is that the court was able to make a policy decision that favored the defendant’s rights while pretending that the plaintiff had nothing about which to complain.

In cases where a defendant’s competing interest has legitimacy, conduct whose scope has not exceeded the legitimate purpose is likely to be construed not highly offensive as a matter of law. Means, or manner of intrusion, delineates the scope. Thus, defendants in workers compensation and personal injury cases have a legitimate purpose to investigate the true extent of the plaintiffs’ injuries; and plaintiffs in those claims should expect a certain amount of scrutiny into their private affairs insofar as they relate to the injury. The same is true for investigations of workplace theft. However, where the means used to protect the defendants’ legitimate interests far exceeds the means necessary for the defined purpose, defendants’ pre-trial dismissals have not been successful.

In Acuff v. IBP, Inc., for example, the defendant employer set up a hidden camera in the ceiling of a nurse manager’s office for the purpose of catching a thief. The room was also used for employee medical examinations and treatments. The medical procedures were caught on film because of the camera’s wide-angle lens. Despite the employer’s legitimate interest, no claim in which the plaintiff could prove the occurrence of a medical intervention in the nurse manager’s office after the installation of the camera was dismissed pre trial. This was true even for those who experienced intrusions no greater than the observation of a medical examination of the wrist. The court reasoned that use of a wide-angle (rather than conventional) lens that captured activity in the entire room exceeded the means necessary to observe the theft of items from the desk. Thus, by using greater means than necessary to protect defendants’ rightful purposes, the delicate balance is upset and society, in the form of a jury, is allowed to consider whether the specific conduct is “highly offensive.” The scope exceeded the permissible bounds favoring defendants’ legiti-

264. See Furman, 744 A.2d at 583.
266. Acuff, 77 F. Supp. 2d at 914 (jury trial allowed where the employer’s installation of a wide-angle camera was excessive).
mate rights, and offensiveness was returned to fact-finders to consider as issues of fact.

In cases where defendants have no definable legitimate purpose, however, there is no balancing because there is no opposing right. Therefore, defendants do not succeed in dismissing the action against them.269

a. Media Defendants

In the context of surveillance by media defendants, the issue of intrusion comes full circle to the famous Warren and Brandeis article, which decried media conduct. Courts have often given great leeway to media conduct in recognition of the important public purpose of raising issues of public concern.270 Thus, it should come as no surprise to find that media defendants were shielded from liability for videotaping and recording a conversation with the flight attendant servicing O.J. Simpson's flight,271 even though the conversation took place at the plaintiff's condominium door. As the door was "in full public view," any intrusion was considered "de minimis."272 The plaintiff's physical location in "public view," with its concurrent acceptance of a diminished expectation of privacy on the part of plaintiff, allowed the court to make a ruling as a matter of law regarding the offensiveness of conduct despite its simultaneous acknowledgment that offensiveness was properly a question of fact.273

In Medical Laboratory Management Consultants v. American Broadcasting Cos., Inc.,274 a reporter collected information about the defendant's business affairs while posing as a professional colleague who was interested in breaking into the business. The court in Med Lab ruled that, as a matter of law, surreptitious filming and recording of the conversation was not "highly offensive." The court applied the rule that use of sensory-enhancing devices to make a record of an encounter taking place in public was not tortiously offensive. To make

270. Davis, 33 GONZ. L. REV. at 624-26. With media defendants, the conduct had to be so egregious as to approach criminality. Id.
271. Deteresa, 121 F.3d at 460 (9th Cir. 1997).
272. Id. at 466.
273. Id. at 465.
the analogy work, the court had to construe as public the secluded workplace.\textsuperscript{275}

Med Lab provides a stark contrast to the most recent case concerning media intrusion in the workplace, Sanders v. American Broadcasting Cos., Inc.\textsuperscript{276} As in Med Lab, an investigative reporter gained access to workplace information by failing to disclose current employment connections with the press, for whom she was to investigate the telepsychic industry. After posing as a job applicant, the reporter was hired as a telepsychic. During the reporter's short employ, she surreptitiously videotaped and recorded one-on-one conversations between herself and other psychics, the plaintiff among them. The case went to trial wherein the jury determined that the reporter had intruded upon the plaintiff's seclusion. The appellate court reversed on the basis that an employee could have "no reasonable expectation of privacy in his workplace conversations because such conversations could be overheard by others in the shared office space."\textsuperscript{277} The California Supreme Court reversed, concluding that seclusion was relative rather than absolute.\textsuperscript{278} The court held that plaintiff employees have a right to "limited privacy" based upon a reasonable expectation that other individuals would be excluded from having access to the private communications taking place at work.\textsuperscript{279}

In reaching its conclusion that the defendant's conduct tortiously intruded upon the plaintiff's seclusion, the Sanders court concentrated on a person's right to control the dissemination of private information. Because the intruder had placed Sanders in a vulnerable position by inserting herself and the accompanying surreptitious equipment, Sanders had lost control over who had access to his private information.\textsuperscript{280} This analytical framework focusing on a person's right to control the exposure of information about himself represents a significant analytical shift. Most importantly, the Sanders court specifically rejected the "public place" rule criticized by McClurg.\textsuperscript{281} The significance of the court's ruling is not that the tort law principles had changed,\textsuperscript{282} but that the mechanical application of a "public place"

\begin{itemize}
\item \textsuperscript{276} 978 P.2d 67 (Cal. 1999)
\item \textsuperscript{277} Sanders v. American Broad. Cos., Inc., 978 P.2d 67, 69 (Cal. 1999).
\item \textsuperscript{278} Sanders, 978 P.2d at 72, 80.
\item \textsuperscript{279} Id. at 77.
\item \textsuperscript{280} See id. at 72 (citing Ribas v. Clark, 696 P.2d 637 (Cal. 1985)).
\item \textsuperscript{281} The Sanders court noted, that "[t]he [intrusion] element is not met when the plaintiff has merely been observed, or even photographed or recorded, in a public place." Sanders, 978 P.2d at 71. McClurg, 73 N.C. L. Rev. at 1030-45.
\item \textsuperscript{282} Restatement (Second) of Torts § 652B (1977). Section 652B summarizes the elements of the intrusion upon seclusion sub-tort as follows: "One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his pri-
rule that had severely hindered survival of many intrusion claims beyond defendants' pre-trial motions since the 1960s would no longer be acceptable.

Sanders rested on the shoulders of Shulman v. Group W Productions. In Shulman, reporters recorded the conversation that took place between the plaintiff accident victim and medical rescuers at the scene of the accident and inside the rescue helicopter. The court acknowledged that the victim had no reasonable expectation to be alone along the side of the public road. Nevertheless, the victim did have a reasonable expectation that personal information would not be extracted via the reporter's microphone. Significantly, the California high court premised its conclusions on the dignitary interests protected by privacy tort law and the principle of control over one's personal information. In essence, the case represents a turning point in evaluating the viability of intrusion actions where the conduct complained of has occurred in a public place. A person's right to control who has access to personal information may be emerging as a new...

283. McClurg, 73 N.C. L. Rev. at 989.
284. 955 P.2d 469 (Cal. 1998) (media minicam and microphone pried into private data at accident scene and in rescue helicopter).
286. See Shulman, 955 P.2d at 469. The cases settled on the eve of trial. Kovner, Telsey, Klaris & Gordin, 581 PRAC. L. INST. at 514. Nevertheless, the significance of the case is that trial was allowed to proceed on the substantive issue of intrusion upon plaintiff's seclusion as it impacted privacy. Moreover, the intrusion had occurred in a public place that one could construe was freely before the view of anyone present. Had a mechanical application of the tort been followed, the words of Prosser could easily foreclosed the tort remedy. Thus, this case heralds a turning away form the mechanical application criticized by McClurg. See McClurg, 73 N.C. L. Rev. at 1036. The Shulman court, moreover, suggested a multifactor approach, including a consideration of the defendant's motive. Shulman 955 P.2d at 469, 485.
287. See Shulman, 955 P.2d at 489. It is in the intrusion cases that invasion of privacy is most clearly seen as an affront to individual dignity.

[A] measure of personal isolation and personal control over the conditions of its abandonment is of the very essence of personal freedom and dignity, is part of what our culture means by these concepts. A man whose home may be entered at the will of another, whose conversations may be overheard at the will of another, whose marital and familial intimacies may be overseen at the will of another, is less of a man, has less human dignity, on that account. He who may intrude upon another at will is the master of the other and, in fact, intrusion is a primary weapon of the tyrant.

Id. (citing Bloustein, 39 N.Y.U. L. Rev. at 973-74). Significantly, the authority for the privacy principle espoused by the court is taken from a commentator responding to Prosser. Bloustein's interpretation of the principle appears to more clearly align with Cooley's articulation of the right to one's person, more frequently referred to as the right to be left alone.
test to apply to public place intrusions occurring in the context of modern technology.288

4. Prying into Private Concerns

Predictably, no claim survived pre-trial motions unless the defendant had something to do with putting in place the mechanism by which private information was exposed.289 Interviewing others to discover information about a target was not considered intrusion protected under the invasion component of the privacy tort.290 Disturbing is the case of Tapia v. Sikorsky Aircraft Div. of United Technologies Corp.291 After suspending the plaintiff employee, the defendant employer inventoried the employee's locker. The court dismissed the claim, concluding that the plaintiff had failed to prove the offensiveness element, since the plaintiff had not specified what private items had been discovered. The refusal to consider the act of in-

288. See Sanders, 978 P.2d at 71 (e.g., where an “expectation of visual and aural privacy depends not only on who might have been able to observe the subject interaction but on the identity of the claimed intruder and the means of intrusion.”). Id. at 77. Alpha Therapeutic Corp. v. Nippon Hosho Kyokai, 199 F.3d 1078 (9th Cir. 1999), opinion withdrawn, Alpha Therapeutic Corp. v. Kyokai, 237 F.3d 1007 (9th Cir. 2001), follows the Shulman approach.

289. See Hougum v. Valley Memorial Homes, 574 N.W.2d 812, 816 (N.D. 1998) (no intent to view plaintiff masturbating in next bathroom stall when hole by toilet tissue was made by someone else and observation (and subsequent reporting) occurred when defendant reached for tissue). Summary judgment was affirmed on the basis that the person who observed the plaintiff's "private affairs" did nothing to intrude. Instead, during the course of normal conduct within a bathroom stall, reaching for toilet tissue, the observer's eyes naturally took in the view presented on the other side of the hole by the tissue dispenser, which happened to be the plaintiff. Private information was viewed inadvertently rather than deliberately and intentionally captured. Implicit is the idea that the plaintiff could have done more to exclude others from viewing the private activity allegedly intruded upon, masturbation. Moreover, the viewer had not attempted to observe the plaintiff; his eyes fell upon a 1.5 inch diameter hole near the dispenser. Hougum, 574 N.W.2d at 818-19. See also Fields v. Atchison, Topeka & Santa Fe Ry. Co., 985 F. Supp. 1308 (D. Kan. 1997) (employer learned of love affair between co-workers from anonymously sent tape of intercepted phone conversation). Again, the defendants did nothing intentionally to capture the private information regarding an inter-employee love affair. Instead, the information was collected and passed on to the employer defendant anonymously.

290. See Dickson v. American Red Cross Nat'l Headquarters, CIV. No. 3:95-CV-2391-P, 1997 WL 118415, at *1 (N.D. Tex. Mar. 10, 1997) (employer's asking apartment manager about spiritual-healer employee not sufficiently intrusive). No intrusive means was used by the defendant merely by interviewing the plaintiff's apartment. This follows the "intrusive means" definition used in Nader v. General Motors Corp., 255 N.E.2d 765 (N.Y. 1970), which found conduct intrusive when the information collected was not available through ordinary investigation. Here, questioning another about the plaintiff was mere ordinary investigation. Nader, 255 N.E.2d at 770.

trusion apart from the content discovered is troubling, and differs from the established content-neutral approach.292

Claims which were allowed to proceed to trial included those involving a "peeping tom,"293 opening private mail,294 and employer investigation of an employee. In Johnson v. K Mart Corp.,295 the plaintiff employees had voluntarily disclosed private information to the undercover investigators employed by their defendant employer for the purpose of monitoring vandalism, theft, and drug use. The appellate court reversed the dismissal on grounds that disclosures induced through deceptive means cannot be voluntary, and because the scope of an employer's reasonable workplace investigation does not include the probing of private affairs, about which there is a reasonable expectation of privacy.296 If viewed from a balancing of legitimate interests perspective, the employer's interest in the prevention of theft, therefore, did not outweigh the individual's interest in privacy as a matter of law in the context of circumstances suggested by the facts of the case; jurors were left to consider the traditionally factual issue of whether the conduct was highly offensive to a reasonable person.297

Several cases fell within what one could generally classify as extraction of personal information by means of one's position of authority. In Anderson v. Farr Assoc., Inc.298 and Roe v. Cheyenne Mountain

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292. See, e.g., Amati v. City of Woodstock, Ill., 829 F. Supp. 998, 1009-10 (N.D. Ill. 1993) (where the liability did not necessitate hearing the recorded conversation); LaCrone v. Ohio Bell Telephone Co., 182 N.E.2d 15, 17 (Ohio 1961). See also K-Mart Corp., Store No. 7441 v. Trotti, 677 S.W.2d 632 (Tex. Ct. App. 1984), which the plaintiff had urged the court to apply by analogy. In Trotti, the employee who placed a personal lock on the workplace locker was held to have established the requisite expectation of privacy such that the employer who had consented to the lock could not intrude. This case suggests an unwillingness to expand the reaches to circumstances beyond those already recognized in the jurisdiction. The judge stated that the circumstances were dissimilar from those remedied in the jurisdiction, citing only physical intrusions and a personal clothing search. Id. at 638.


297. Johnson, 723 N.E.2d at 1197.

plaintiffs were required to reveal highly personal information to agents of their employers. These cases track previous “prying” decisions where highly personal questions by one in authority constituted tortious extraction of information.

Similarly, in Alexander v. FBI, the First Lady used her position of authority to pry into the personal affairs of political appointees and White House employees serving under the former administration. The conduct was intrusive because the sole purpose was to extract personal information about the plaintiffs in order to embarrass them for political gain. Clearly, the purpose of the conduct expressed no legitimate opposing interests to weigh against the plaintiffs' privacy interests.

Lake v. Wal-Mart Stores, Inc. and Hidey v. Ohio State Hwy. Patrol involved the defendants’ viewing of the plaintiffs’ naked bodies without consent. Each case identified the naked body as a protected interest since it was a “private part of one’s person and generally known to others only by choice.” Therefore, each plaintiff

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299. 124 F.3d 1221 (10th Cir.1997) (employer sought to have accounts manager employee report all drug intake and pre-approve prescription drugs in addition to submission to random drug testing). The employee successfully argued that information regarding prescription drugs was private, citing to a Board of Pharmacy provision in support of the embarrassing nature of the information requested.

300. RESTATEMENT (SECOND) OF TORTS § 652B cmt. b (1977); An invasion of privacy can be based on a psychological intrusion such as through questions by one in authority which are highly personal. KEETON, DOBBS, KEETON & OWENS, supra note 86, at 21.


302. Alexander v. FBI, 971 F. Supp. at 605. The First Lady, through her agents, demanded to review FBI files that had been compiled solely for use in determining governmental clearance. While the content of the FBI files was not in the direct control of the personnel, the personnel retained indirect control insofar as they had consented to allow others to review the contents for only one sole purpose. The contents of the file were highly personal (the information was unlikely to be revealed by normal investigation such as a public records search) and the means of extraction (demand by one with apparent authority) was intrusive. Alexander, 971 F. Supp. at 605.

303. Alexander, 971 F. Supp. at 609. Interestingly, the Nader court also indicated that the means of gathering information was intrusive if it could not easily be obtained using ordinary investigative techniques. This case also suggests that one could have a tort action against one who ordered information from a data file discussed in the HIPPA regulations: That is, HIPPA appears to protect companies who maintain the files and to assess fines when the companies did not go through reasonable checking procedures. The tort action, on the other hand, may be available against those who request the information with no right to do so under an Alexander analysis.

304. 582 N.W.2d 231 (Minn. 1998) (photo employees printed personal copies of photos from negatives which showed the plaintiff’s naked body while not printing copies for plaintiff customer because of sexual content).

305. 689 N.E.2d 89 (Ohio App. Ct. 1996) (police shined flashlight down pants and ordered breast exposed, believing plaintiff had drugs).

306. Lake v. Wal-Mart Stores, Inc., 582 N.W.2d 231, 235 (Minn. 1998). The court reasoned: “[t]he right to privacy is an integral part of our humanity; one has a public persona, exposed and active, and a private persona, guarded and preserved. The heart of our liberty is choosing which parts of our lives shall become public and which parts
had an expectation of privacy regarding the appearance of her naked body. When the defendants viewed surreptitiously obtained photos of the naked bodies (Lake) or forced its exposure by virtue of presumed authority (Hidey), the plaintiffs had not abandoned their privacy interests. The forced exposure of the personal information resulted in finding the defendants' conduct highly offensive to reasonable persons and, therefore, tortiously intrusive.

_Doe v. High-Tech Institute, Inc._, 307 discusses the ramification of unauthorized testing of human tissues. In _High-Tech_, students in a medical assistance training program were asked to provide blood samples to be tested for rubella as required. The plaintiff signed the consent form with the understanding that the rubella test would be the only one performed. The plaintiff was aware that he was HIV positive and, prior to signing the consent form, had informed his instructor about his condition and requested the instructor to treat the information as confidential. When the instructor submitted the request to test all samples for rubella, he ordered that an additional AIDS test be conducted on the plaintiff alone, without the plaintiff's knowledge. The plaintiff would not have given consent because of the state's mandatory reporting statute.

In analyzing the viability of the intrusion claim, the court focused on the "manner in which information that a person has kept private has been obtained."308 The court separated the plaintiff's abandoning of the tissue sample (in this case blood) from the defendant's act of withdrawing information contained within the abandoned sample.309 The intrusive conduct was in ordering the extraction of information beyond that to which consent had been given. The court recognized, as in the previous two cases, that one has a privacy interest in one's own body,310 and that one has a right to make important decisions regarding one's body.311 Therefore, the plaintiff had not abandoned the right to make those important decisions; control had been forcefully removed, resulting in the loss of autonomy.312

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307. _Doe v. High-Tech Institute, Inc._, 972 P.2d 1061 (Colo. App. 1998) (discussing where blood submitted for rubella test only was also tested for HIV).
309. _High-Tech_, 972 P.2d at 1069 (citing _Skinner v. Railway Labor Executives' Ass'n_, 489 U.S. 602 (1989)).
310. _Id._ at 1068.
311. _Id._ at 1069.
312. _Id._
The High-Tech court did not believe that the act resulting in the loss of autonomy constituted per se tortious intrusion. Instead, the court concluded that one must examine the contents of the information to determine whether the revelation of the personal information would be highly offensive to a reasonable person. In High-Tech, the act was considered highly offensive because the information, a positive test result for HIV/AIDS, if known, could lead to social stigma. Evidently, because revelation of the private information could be stigmatizing, an expectation of privacy was deemed reasonable. High-Tech's analysis based upon evaluating the information obtained appears to be a divergence from the content-neutral approach taken in eavesdropping cases, and would be dangerous to apply to circumstances of genetic intrusions where the potential embarrassment cannot immediately be discerned.

A valuable contribution of Doe v. High-Tech Institute, Inc. is that it added a new dimension to the intrusion tort. It defined the intrusive conduct as "the interference with a person's autonomy," which encompassed the right to control decisions over genetic testing. This declaration that interfering with one's autonomy is a legitimate consideration of the intrusion component of the privacy tort reinforces the dignitary aspect of the tort. Additionally, it exposes the parallelism between the privacy tort as protection against coercively obtained information and the application of the doctrine of informed consent to preserve bodily integrity.

5. Observations

Review of the recent cases indicates that the intrusion tort is a viable means of preserving privacy rights in a variety of contexts and that it has been enlarged to consider more specialized categories of intrusions, including sexual harassment and drug testing in the employment context. Of greatest significance is the specific rejection of the public place limitation on the tort in Sanders and the apparent emergence of a new test, in Shulman, regarding the application of the intrusion tort to circumstances where the intrusive conduct oc-

313. Id. at 1069.
314. Since a positive result was stigmatizing "carries with it a strong social stigma" it was "very highly sensitive, and accordingly, there is a heightened need for an individual to hold such information in seclusion." Id. at 1070.
315. High-Tech., 972 P.2d at 1070 (citing Whalen v. Roe, 429 U.S. 589, 597-602 (1977) (recognizing the right to make important medical decisions and concluding that a prescription drug database did not automatically violate the Fourteenth Amendment); Tom Gerety, Redefining Privacy, 12 HARv. C.R-C.L.L. REV. 233, 236 (1977) (privacy as "an autonomy or control over the intimacies of personal identity").
316. Sanders, 978 P.2d at 67. See supra notes 283-86 and accompanying text.
317. Shulman, 955 P.2d at 469. See supra notes 283-86 and accompanying text.
curred in a public place. By examining who controlled the exposure, the *Shulman* court recognized that a person does not have a right to be alone, as did Prosser, and specifically acknowledged the difference between the exposure of personal information through willful abandonment or at the sole will of another. Only the latter formed the basis of a successful claim. *Shulman* also reaffirmed the dignitary nature of the tort, stating that a person's control over circumstances of abandonment of personal information "is of the very essence of personal freedom and dignity."  

Moreover, the court explained the loss of human dignity by the following: "[h]e who may intrude upon another at will is the master of the other and, in fact, intrusion is a primary weapon of the tyrant." Thus, the court implicitly acknowledged the difference between a purported right to be alone that resulted in the dismissal of public place intrusions and the right to be let alone that focused on a contextual analysis.

Other cases addressing the intrusion tort in various "prying" contexts concluded that intrusion was actionable if exposure of personal information was coerced. The unifying feature continued to be expressed in dignitary rather than property terms.

F. Application of the Intrusion Tort to Genetic Privacy

The application of the intrusion tort to invasions of genetic privacy must be examined in light of the historic and modern appreciation of the law. The following issues are relevant in the discussion: whether genetic information is personal information protectable under the intrusion tort; whether the tort may be used when the tissues from which the genetic information is learned are collected in public places; and whether the extraction of genetic information from DNA-rich tissues could be highly offensive to reasonable persons.

Genetic information is housed in tangible matter. Viewing, touching, collecting, or gathering the matter does not constitute the tort of intrusion. The matter is exposed to public view and of itself reveals no private information. It is only when the matter is subject to closer scrutiny, as through genetic testing, that personal information relating to one's genetics is exposed.

Who could argue that genetic information is anything but personal? Genetic content is unique to an individual and thereby linked to one's identity. However, the genetic make-up of an individual is

319. *Id*.
320. See *supra* notes 306-17 and accompanying text.
321. See *Cavoli*, 55 Alb. L. Rev. at 1394 (Only those characteristics that are revealed by closer scrutiny, as by microscope, are those not exposed to the public view).
only a partial expression of self-identity. The other important component is the person's human efforts and responses to environment. Thereby the genetic endowment may be enhanced or diminished. Failure to examine genetic content in the context of a person's own efforts elevates scientific fact beyond its importance and reduces the person to the aggregate of his or her biological matter. The result interferes with self-expression and thereby affronts human dignity.\textsuperscript{322} Retaining control over the exposure of information that subjects a person to such reduction is thereby essential.\textsuperscript{323}

Loss of control does not occur whenever DNA-rich tissue is collected. Such a broad net could include janitors and hairdressers whose purpose does not include extracting genetic information from the tissue collected. Nor is control lost merely because a third person has examined human tissue and exposed some genetic information. Otherwise, every genetic counselor would be subject to liability in tort whenever genetic information was exposed through testing.\textsuperscript{324} Instead, the intrusive conduct occurs when the aggrieved person has involuntarily lost control over the choice to expose or refrain from exposing the intimate personal information of his or her genetic make-up. The comparison of \textit{Graham}\textsuperscript{325} and \textit{Neff}\textsuperscript{326} illustrates what type of conduct triggers tort liability.

In each case, photographers captured the personal information regarding the plaintiffs' underwear on film. Neff had no legal remedy; Graham did. The personal information was the same in both cases, as was the defendant's conduct in utilizing a camera to capture the information. The precise conduct that triggered liability came before the making of the record on film. The photographer in \textit{Graham} took control over the exposure of the personal information away from the plaintiff. He took advantage of her involuntary vulnerability by placing himself in a position to capture the personal information when he knew it would be released without her consent.

In the context of exposure of genetic information, a person who subjects human tissue to testing solely based on his or her desire to expose the information is like the photographer in \textit{Graham}. And, just like Graham, who could reasonably do no more to protect her privacy, persons whose tissues have naturally been shed can reasonably do no

\textsuperscript{322} See supra notes 24-30 and accompanying text.
\textsuperscript{323} See supra notes 138-49 and accompanying text.
\textsuperscript{324} Counselors and other medical professionals have effective shields under the doctrine of informed consent that guards them against tort liability simultaneous with the protections granted patients. A related issue involves exposure of the information after it has been memorialized in some record. That is an issue that regulations under HIPPA seek to resolve. See supra notes 60-69 and accompanying text.
\textsuperscript{325} \textit{Graham}, 162 So. 2d at 474. See supra notes 198-208 and accompanying text.
\textsuperscript{326} \textit{Neff}, 406 F. Supp. at 858. See supra notes 198-208 and accompanying text.
more to protect themselves against intrusions of genetic privacy. Should we expect a person to be completely clothed from head to toe to prevent unwanted genetic testing of tissues unwilling left behind? Should we expect a person to wipe and sweep after themselves to protect against such intrusions? Such expectations would be unreasonable. Unlike Neff, who carelessly left personal information exposed, each person is left vulnerable to exposure, just like Graham. A private person, like Graham's photographer, who takes advantage of the involuntary vulnerability and willfully controls the exposure of genetic information by application of some technical device that exposes the intimate detail of the person's genetic make-up has intentionally intruded upon genetic solitude and should be found liable under the intrusion tort.\footnote{327. Only legitimate purposes as defined by specialized experts should defeat liability. \textit{See infra} notes 323-24 and accompanying text.}

The crucial issue of whether information has been voluntarily exposed or involuntarily coerced is not reached when intrusion actions are summarily dismissed based on the public place rule. The recent California cases of \textit{Shulman}\footnote{328. \textit{Shulman}, 955 P.2d at 469. \textit{See supra} notes 283-86 and accompanying text.} and \textit{Sanders}\footnote{329. \textit{Sanders}, 978 P.2d at 67. \textit{See supra} note 279 and accompanying text.} suggest a turning away from summary dismissals and a movement toward analyzing each case in the context of surrounding circumstances. That approach is helpful to apply to future instances of genetic intrusions. The control over the exposure test applied by the \textit{Shulman} court is consistent with the \textit{Graham/Neff} analysis and with the foundational principles of the privacy tort. It preserves one's right to be \textit{let} alone without a simultaneous right or expectation to \textit{be} alone in a public place. Moreover, it allows for growth of the tort to fill the gaps created by the availability of new technology such as the gene testing kits that will become available to private parties. Thus, the rejection of the public place rule by the California court in favor of a focus on the plaintiff's vulnerability has significant impact on allowing legitimate claims to survive summary dismissals, including future claims of intrusions upon genetic privacy.

A California approach enables the real issue of the attack on the claimant's dignity in the context of genetic privacy to be addressed. All intrusions would not result in liability. The affront on dignity impacting the plaintiff's right to be \textit{let} alone would need to be balanced against the intruder's interests in making use of available technology, satisfying curiosity, or in needing to know the information sought to be exposed. In Restatement Second terms, liability would be premised
on intrusions that are both subjectively offensive to the plaintiff and objectively unreasonable in light of the intruder's interests.

In general, the exposure of genetic information should be viewed as subjectively offensive and subjectively unreasonable because of a target's vulnerability and because of what may be revealed. Suppose a test were developed that revealed a genetic predisposition for pedophilia? One could argue that despite the intrusive character of testing for the trait, society's interest in protecting children weighs so heavily in favor of an opposing interest such as that of a protective parent who lives in the target's neighborhood that surreptitious testing for the trait would impose no liability. But, then, would that not be a condemnation of what a person is rather than what a person does? The target may never become a pedophile just as a person who has a genetic predisposition for developing great sprinting muscles may never become an athlete. The genetic information may be scientifically accurate, but it says nothing of what a person does to enhance or diminish inherited traits.\(^{330}\) Similarly, when researchers have discovered which genes relate to predispositions to homosexuality, those genes ought not be subject to testing at the will of another. One who has such a predisposition should not be coerced into revealing such information. The dignity of a person is maintained by that person's choosing to whom to reveal such personal information.

What about characteristics that are not currently associated with stigma? Should we be selective and exclude liability for exposure of those genetic characteristics? Suppose, for example, a genetic test reveals the presence or absence of genes predisposing one to rise early or sleep late. Alone, such characteristics do not appear to be personal information worthy of legal protection. Yet, what if another genetic characteristic, such as one related to a diseased condition or undesirable personality trait, were found to be linked because of their physical proximity on the same chromosome? Gene linkages may not be known at the time of initial testing, but may be discovered over time. However, once testing is done and the genetic information is exposed, it cannot be retracted, amended, or explained away. For that reason, the analysis should be content neutral and not linked to whether currently stigmatizing traits are revealed. Instead, the focus should be on who should have ultimate control over the exposure of personal information when the potentially exposed person has no ability to prevent the exposure. Is it not objectively unreasonable to deny liability

\(^{330}\) See Rosen, supra note 156, at 25 (noting information does not constitute knowledge). Additionally, once a person's genetic capability (or lack thereof) has been exposed, where is the incentive to enhance the capabilities if personal effort will not be fully recognized? See id. at 210 (where any "mask" that separates a person from full disclosure of the essence of that person assists a person in developing relationships).
when intrusive conduct forces information to be exposed when a person is powerless to prevent its forced extraction? There is no balance struck between opposing interests if one has a burden of self-protection that is impossible to meet because of another's willful and surreptitious application of an intrusive device that coerces the release of the personal information.

What of the argument that acts of intrusion are to be measured (as one factor) in accord with the means use? Obtrusive means, such as in the context of harassment, results in liability. But the conduct that leads to exposure of genetic information is not obtrusive. The exposure occurs by a person in position of power (granted by command over an instrumentality exposing the desired personal information) prying and coercively extracting it. The instrument of exposure, to the extent that it becomes as commonplace as the camera, may be rationalized as failing the "means" test. However, even commonplace technologies can be limited by a justifiable scope of their use. Similar to surreptitious photography in the context of the workplace or surveillance in the litigation context, any investigation and resultant exposure of personal information must not reach beyond its permissible scope. This leaves open the door to consider whether any scope is legally permissible within the confines of the intrusion tort. The issue of scope can be discussed in terms of objectivity: what privacy can a person reasonably expect?

The public place rule attempted to establish that one can have no expectation of privacy in a public place. However, the bright-line ruling is unnecessary and is flawed as revealed by the contextual analysis of the California court. Reasonable expectations may be premised upon notice. Notice that all may potentially intrude is far broader than the notice of possible intrusion that is constructively (or actually) given in the context of workplace monitoring, workplace drug testing, and litigation investigation. On that basis, when there is no particularized notice of possible intrusion; when one is unable to prevent the intrusion; and when one has no ability to determine if, when, and to whom personal information has been exposed, a reasonable expectation in the privacy of one's genetic information should be construed either at law, or by the factfinder as a result of examining the offense objectively and subjectively. To conclude otherwise would result in loss of freedom to move in society unhampered by suspicion and paranoia. The inevitable vulnerability that is impossible to protect even with the exercise of utmost care should result in an inference that one has a reasonable expectation of genetic privacy, even from intrusions that are initiated in a public place.
In recognition of the need for society to limit the rights of one when another has more compelling interests, however, a balance should be struck by those who may make sound, reasoned decisions. Thus, the purposes for which another may factually intrude upon genetic privacy without legal sanction in tort should be explored by experts. This impacts the objective element of offense.\textsuperscript{331} Philosophers, geneticists, ethicists, and legal scholars should be the decision makers guiding the direction of the law.

V. CONCLUSION

Genetic privacy is a complex subject involving multifaceted scientific, philosophical, emotional, and legal issues. However, the common law evolves with respect to this issue, it should be guided by principles that make life in society tolerable. In our society, we ascribe to the belief that all men are created equal and that each is entitled to the pursuit of life, liberty and happiness. To the extent that our inner happiness is achieved by maintaining an identity that depends upon a unity of genetic information with our whole self image, the classification of genetic information should vest in a non-property definition.

Once determining that genetic information is inseparable from self, it stands to reason that another cannot extract that information without consent.\textsuperscript{332} Thus, invasions of genetic privacy could potentially fit into the overall intrusion upon seclusion category of the privacy tort. However, two points must first be resolved.

First, the movement away from a mechanical application of a dismissal of cases where instances of intrusion occurred in public places must continue. Judges must be willing to examine the real issue of intrusion and the inability of a subject to prevent the collection of genetic matter. Judges must be willing to recognize that balance does not occur if the release of genetic information is coerced and not abandoned.

Second, in conjunction with the abandonment of a public place limitation, there must be a recognition that intrusion occurs not at the point of collection of raw genetic matter but at the time that personal genetic information is sought from it. Thus, a janitor or hairdresser would not be liable merely for collecting or disposing of human tissue that houses genetic information. The manipulation of the tissue that begins to trap genetic information is the point at which liability should

\textsuperscript{331} See supra notes 256-61 and accompanying text.

\textsuperscript{332} It is possible to separate genetic information that is learned from medical or other files from the tort analysis of this paper. To lump them together ignores the concern that third parties in the future will be able to gain control over another's genetic information at will as technology develops new tests.
begin. This tracks the intrusion upon seclusion tort, where liability attaches regardless of whether the information extracted (as by wiretap or camera) is ever heard or seen.

Finally, with respect to genetic privacy, the measure of what intrusion is highly offensive must be content neutral. To limit liability to the exposure of genetic information that is known at the time to be embarrassing or stigmatizing counters the theory underlying the tort, which is that each person has a right to be let alone. No content figured into the conduct of intrusion. When a person eavesdropped, there was no defense that no embarrassing information was learned. Members of society were charged with a duty to refrain from the conduct itself that undermined the aggrieved's self-dignity. Instead, the right to be free from genetic intrusions should be weighed against competing rights to know the information sought similar to instances of surveillance by employers or litigants. There, a potential plaintiff had constructive notice of decreased privacy. The intruder was legally protected only insofar as the invasion of privacy was limited to the scope of the legitimate need to know.

Likewise, persons whose genetic privacy could be breached for a legitimate purpose must receive some type of notice. Otherwise, a paranoid society could develop: suspicious that another seeks genetic information, fearful that genetic information has already been learned by someone of unknown identity, and helpless to prevent such intrusions despite the exercise of great effort. What notice is required and what reasons deserve legitimization should be determined by the joint efforts of ethicist, geneticists, and philosophers as well as jurists.

333. See Rosen, supra note 156, at 213 (noting closely monitored workers experienced depression, anxiety and other undesirable responses that prevented their maximum happiness and productivity).